Value Added Course- 2022-2023

S.No	Dept	Name of Add on /Certificate programs offered	Course Code (if any)	Number of Students completing the course in the year	Type of Add on Course
1	Civil	CAD	-	5	Self Framed Course
2	Civil	STADD PRO	-	4	Self Framed Course
3	Civil	CAD	-	17	Self Framed Course
4	Civil	3D Infrastructural Modelling	CVA034	17	One Credit Value Added Course (Approved by Anna University)
5	IT	CCNA V7: Switching, Routing& Wireless Essentials	-	43	Self Framed Course
6	CSE	CCNA V7: Switching, Routing& Wireless Essentials	-	43	Self Framed Course
7	EEE	SCI Lab	-	37	Self Framed Course
8	ECE	UAV Drone Modelling	-	31	Self Framed Course
9	ECE	IoT Using Arduino	IVA067	22	One Credit Value Added Course (Approved by Anna University)
10	Mech	Introduction to Multibody Dynamics	MVA022	29	One Credit Value Added Course (Approved by Anna University)
11	EEE	Lab View	-	16	Self Framed Course
12	EEE	Simulation of Electric Vehicle	-	6	Self Framed Course
13	EEE	Fundamentals of MAT LAB	-	16	Self Framed Course
14	EEE	Fundamentals of AutoCAD	-	19	Self Framed Course
15	Mech	3D Modelling Using CATIA	-	24	Self Framed Course
16	CSE	Advanced Python and Introduction to Machine Learning	IVA018	52	One Credit Value Added Course (Approved by Anna University)
17	Mech	CNC Programming		24	Self Framed Course

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

Recognized under UGC 12B & 2f Act

ISO 9001:2015
Certified by IRQS

NABCB
QM 006

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the number of students enrolled in subject related Certificate or Add-on programs during the academic year 2022-2023 is **405**

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

No:34, Rajiv Gandhi Road (OMR), IT Highway, Siruseri IT Park, Chennai - 603 103.

044-2747 0024   99400 04500   principal@msajce-edu.in   www.msajce-edu.in

MSAJCE

MSAJCE

From

The Head of Department

Department of Civil Engineering

Mohamed Sathak A.J College of Engineering

Chennai.

To

The Principal

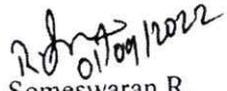Mohamed Sathak A.J College of Engineering

Chennai.

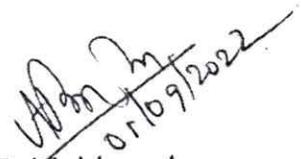Respected Sir,

Sub – Value added course registration – Reg.

We have selected the CADD as a value added course for this even semester for II Year students of the (AY 2022 – 2023). So I kindly request you to approve the same to update in the Anna University web portal.
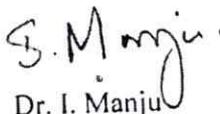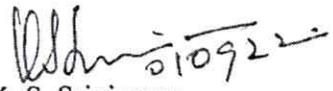
Thanking You

Yours Sincerely

Dr. Someswaran R.
HOD/CIVIL

Dr. I. Manju
Technology Centre Head

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Dr. Balakrishnan A.
Academic/Head

Dr. K. S. Srinivasan
Principal

DEPARTMENT OF CIVIL ENGINEERING

01-09-2022

MSAJCE

MSAJCE/CIVIL/004/ODD/2022-23

CIRCULAR

It is hereby informed to all the faculty members and second year civil engineering students that the VAC as CADD for this semester. This course will be handled by Mr.Navaneethakrishnan C. The venue of the course is BIM lab.

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

HoD/Civil

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

VAC - STUDENTS NAME LIST

Department of Civil Engineering

Academic Year: 2022-23

Name of the Value Added Course : CADD			
Yr / Sem : II / III		Faculty In-charge :	Mr. Navaneethakrishnan C.
Location : BIM Lab		Duration :	40 Periods
Sl.No	Name of the Student	Register No.	Status of Qualifying
1	A MOHAMED FAIZAL	311821103001	Completed
2	M MOHAMED HAROON	311821103002	Completed
3	K SANDESH KUMAR	311821103003	Completed
4	S SHANMUGAM	311821103004	Completed
5	M MOHAMED KAIF	311821103301	Completed
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

Head-Training

Signature of HoD with date

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
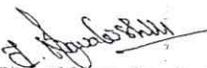Sipcot - IT Highway Egattur,
Chenai - 603103.

Format No.: TLP 20

Rev.No.: 01

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

VALUE ADDED COURSE - COURSE CONTENT

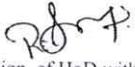### Department of Civil Deparment

Class : II Year   Academic Year: 2022-2023

Name of the Value Added Course	CADD	Name of the handling Faculty	Mr. Navaneethakrishnan C

Course Objective

The objective of this course is to teach users the basic commands and tools necessary for professional 2D drawing design and drafting using AutoCAD /

The objective of this course is to impart necessary and practical knowledge of Building Information Modeling (BIM) and to communicate a design idea , structural detailing ,concept graphically, visually.

Course Outcome

Students will able to work in interface of Autocad and create 2 dimensional drawings in Autocad.

Students will able to print out the drawing in Autocad in proper format.

Students will able to Autocad's plotter settings

Lesson Plan for VAC

Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	Basic about Autodesk and introduction to civil engineering , Usage of Autodesk, Component of Autocad ,	T1	3	CADD Software
2	Importance of drafting and designing , Basic about Auto CAD	T1	3	CADD Software
3	Types of drwaing , Views and Tools	T1	2	CADD Software
4	Different commands in Auto CAD	T1	2	CADD Software
5	Line command , Poly line command and Rectangle comman	T1	3	CADD Software
6	Move ,Rotate, Scale, copy, Mirror, erase, trim, extend	T1	2	CADD Software
7	Linear, Aligned, Radius ,Angular, Arc length	T1	2	CADD Software
8	Single line text ,Multiline text, Layer properties ,Insert blocks	T1	3	CADD Software
9	Geometric, Dimensional ,Manage	T2	2	CADD Software
10	Isometric top, left, right ,Isometric diagrams	T2	3	CADD Software
11	Isometric diagrams exercise	T2	2	CADD Software
12	Drawing units ,Sheet settings	T2	3	CADD Software
13	Save files ,Export pdf plot	T2	3	CADD Software
14	Drawing Area Setup ,Visual reference	T2	3	CADD Software
15	Grid snap mode	T2	2	CADD Software
16	Introduction to building drawing	T2	2	CADD Software

Quiz / Mini Projects / Model Develpoed if any

1. Drawing plan of G+2

2. Residential house public buildings

Text / Reference Books

1	Learn AutoCAD in a Easy Way Paperback – 1 January 2010 by Sunil K. Pandey
2	Civil Engineering Drawing & House Planning: A Text Book Paperback – 1 January 2006 by B. P. Verma
3	Latest House Designs Paperback – 1 January 2016 by Aditya Kamal

Website / URL References

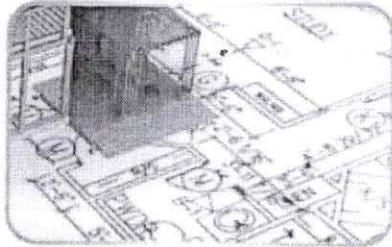| 1	https://youtu.be/pvKVy-eMDYc
2	https://youtu.be/s21KfdONMN8

Sign. of Course Coordinator

Sign. of HoD with date

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Format No.: TLP 21

Rev. No.: 1.0

Rev. Date:04.03.21

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Certificate of Completion

This is to certify that Mr. / Ms. _____ Mohamed Faizal _____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"Computed Aided Design & Drawing"** from

22nd August 2022 to 30th November 2022. Conducted by Centre for Building

Information Modeling, Department of Civil Engineering.

Course Duration: 45 Hours
Course: AutoCAD

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
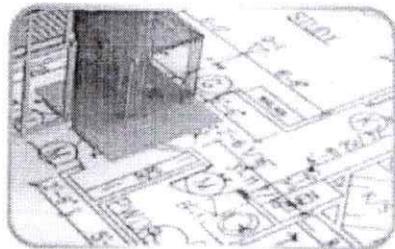Sipcot - IT Highway Egattur,
Chennai - 603103.

Mr.C.Navaneetha krishnan
Course Co-ordinator

Dr. I. Manju
Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Certificate of Completion

This is to certify that Mr. / Ms. _____Mohamed Haroon_____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"Computed Aided Design & Drawing"** from

22nd August 2022 to 30th November 2022. Conducted by Centre for Building

Information Modeling, Department of Civil Engineering.

Course Duration: 45 Hours
Course: AutoCAD

I. Manju

Mr.C.Navaneetha krishnan
Course Co - ordinator

Dr. I. Manju
Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Certificate of Completion

This is to certify that Mr. / Ms. _____Mohamed Kaif_____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on "Computed Aided Design & Drawing" from

22nd August 2022 to 30th November 2022. Conducted by Centre for Building

Information Modeling, Department of Civil Engineering.

Course Duration: 45 Hours

Course: AutoCAD

Mr.C.Navaneetha krishnan
Course Co-ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
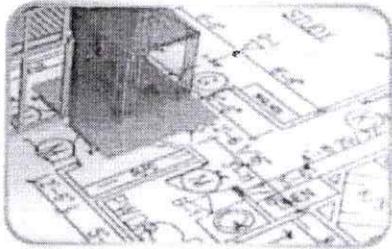Sipcot - IT Highway Egattur
Chennai - 603103.

Dr. I. Manju
Head, Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Certificate of Completion

This is to certify that Mr. / Ms. _____Shanmugam_____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"Computed Aided Design & Drawing"** from

22nd August 2022 to 30th November 2022. Conducted by Centre for Building

Information Modeling, Department of Civil Engineering.

Course Duration: 45 Hours

Course: AutoCAD

Mr.C.Navaneetha krishnan
Course Co-ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur
Chennai - 603103.

Dr. I. Manju
Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Certificate of Completion

This is to certify that Mr. / Ms. _____K Sandesh Kumar_____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"Computed Aided Design & Drawing"** from

22nd August 2022 to 30th November 2022. Conducted by Centre for Building

Information Modeling, Department of Civil Engineering.

Course Duration: 45 Hours
Course: AutoCAD

Mr.C.Navaneetha krishnan
Course Co-ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Dr. I. Manju
Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MSAJCE

From

The Head of Department

Department of Civil Engineering

Mohamed Sathak A.J College of Engineering

Chennai.

To

The Principal

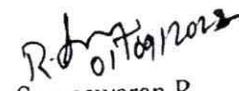Mohamed Sathak A.J College of Engineering
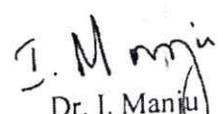
Chennai.

Respected Sir,

Sub – Value added course registration – Reg.

We have selected the STADD Pro. as a value added course for this even semester for IV Year students of the (AY 2022 – 2023). So I kindly request you to approve the same to update in the Anna University web portal.
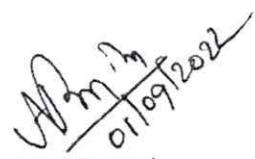
Thanking You

Yours Sincerely

R. 01/09/2022
Dr. Someswaran R.
HOD/CIVIL

01/09/2022
Dr. Balakrishnan A.
Academic/Head

I. Manju
Dr. I. Manju
Technology Centre Head

010922
Dr. K. S. Srinivasan
Principal

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

ISO 9001:2015
Certified by IRQS   QM 006

DEPARTMENT OF CIVIL ENGINEERING

01-09-2022

MSAJCE

MSAJCE/CIVIL/005/ODD/2022-23

CIRCULAR

It is hereby informed to all the faculty members and second year civil engineering students that the VAC as STADD Pro. for this semester. This course will be handled by Mr. Emilreyan M. The venue of the course is BIM lab.

HoD/Civil

COE STADD PRO ASSESSMENT

(ODD SEMESTER 2022)

ATTENDANCE LIST

YEAR & BRANCH: IV CIVIL

DATE & SESSION: 09.11.2022 (AN)

S.NO	REG.NO	NAME	SIGNATURE
1	311819103001	ANANDU ACHARRY M.S	
2	311819103004	MAHMOOD SHAFEEQ A	
3	311819103005	RIYAS AHAMED A	
4	311819103006	S SHAHITH ASLAM	
5	311819103301	MOHAMED KHAN S	
6	311819103302	MOHAMED NATHEEM MANSOOR N	
7	311819103303	THASRUDEEN R	
8	311819103304	VEERAKUMAR M	
9	311819103305	MOHAMED NOOHU ADHIL P R	

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
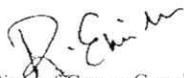Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

VALUE ADDED COURSE - COURSE CONTENT

Department of Civil Deparment

Academic Year: 2019-2020

Class : IV Year

Name of the Value	STAAD Pro.	Name of the handling	Mr. Emilrevan R.

Course Objective

The main aim of this course is to enhance the students' knowledge in structural analysis and design with the basic principles.

Course Outcome

Knowledge in analysis and design of structural elements.

Able to design concrete slabs, columns, footing liquid retaining structures, bridges.

Lesson Plan for VAC

Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	Basic about STAAD .Pro and Basics of STAAD.Pro ,	T1	3	STAAD.Pro Software
2	Importance of drafting and designing , STAAD.Pro	T1	3	STAAD.Pro Software
3	Introduction to menu bar , Tool bar , Grids in STAAD	T1	2	STAAD.Pro Software
4	Basic Features, Starting STAAD.ProV8i-Starting New	T1	2	STAAD.Pro Software
5	Working In User Interface Opening an Existing Project ,	T1	3	STAAD.Pro Software
6	Creating Nodes, Members, Plate Elements And Surface	T1	2	STAAD.Pro Software
7	Structural Modeling Using Staad Gui , Modeling Using	T1	2	STAAD.Pro Software
8	Adding Beam Using Tools, Creating Beams, Creating	T1	3	STAAD.Pro Software
9	Member Specifications	T2	2	STAAD.Pro Software
10	Plate Specification, Supports.	T2	3	STAAD.Pro Software
11	Primary Loads- Self Weight, Nodal Loads, Member	T2	2	STAAD.Pro Software
12	Floor Loads, Surface Loads, Solid Loads, Seismic Loads.	T2	3	STAAD.Pro Software
13	Pre Analysis Print, Performing Analysis	T2	3	STAAD.Pro Software
14	Post Analysis Print	T2	3	STAAD.Pro Software
15	Viewing Results	T2	2	STAAD.Pro Software
16	View Output File	T2	3	STAAD.Pro Software
17	Go To Post Process Mode.	T2	3	STAAD.Pro Software

Quiz / Mini Projects / Model Develpoed if any

1. Analysis & Design of Steel Truss

2. Deign of Bridge

3 .Design of Circular Water Tank

Text / Reference Books

1	Staad Pro v8i for beginners by T.S.Sarma
2	Structural Analysis: In Theory and Practice.

Website / URL References

1	https://youtu.be/HaVmD_QC-hI
2	https://youtu.be/hDQ_Fjaicpw

Sign.of Course Coordinator
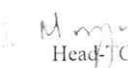
Sign. of HoD with date

Head-IC

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

CENTRE OF EXCELLENCE (BIM-STADDPRO)

NAME LIST OF STUDENTS (FINAL YEAR-CIVIL)

S.NO	NAME OF STUDENT	STUDENT SIGNATURE
1	M.S.Anandhu Acharry	
2	A.Mahmood Shafeeq	
3	A.Riyas Ahamed	
4	S.Shahith Aslam	
5	S.Mohamed Khan	
6	N.Mohamed Natheem Mansoor	
7	R.Thasrudeen	
8	M.Veerakumar	
9	P.R.Mohamed Noohu Adhil	

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973-2022

ISO 9001:2015 Certified byIRQS | NABOB QM 006 | CII AICTE CII SURVEY SILVER RANKING | Performer | INSTITUTION'S INNOVATION COUNCIL

Certificate of Completion

This is to certify that Mr. / Ms. ___ANANDU ACHARRY M.S___ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"Staad Pro"** from 22nd August 2022 to 30th

November 2022. Conducted by Centre for Building Information Modeling,

Department of Civil Engineering.
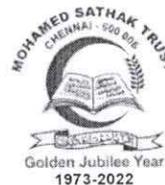
Mr.R.Emilreyan
Course Co - ordinator

Dr. I. Mabju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

MOHAMED SATHAK TRUST
CHENNAI - 600 006
Golden Jubilee Year
1973-2022

ISO 9001:2015
Certified byIRQS QM 006 NABOB

CII
AICTE CII SURVEY
SILVER RANKING

Performer

INSTITUTION'S
INNOVATION COUNCIL

Certificate of Completion

This is to certify that Mr. / Ms. _____ **MAHMOOD SHAFEEQ A** _____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"Staad Pro"** from 22nd August 2022 to 30th

November 2022. Conducted by Centre for Building Information Modeling,

Department of Civil Engineering.

Mr.R.Emilreyan
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot Highway Egattur,
Chenai - 603103.

Dr. I. Mabju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

Certificate of Completion

This is to certify that Mr. / Ms. MOHAMED NATHEEM MANSOOR N student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"Staad Pro"** from 22nd August 2022 to 30th

November 2022. Conducted by Centre for Building Information Modeling,

Department of Civil Engineering.

Mr.R.Emilreyan
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi St.,
Sipcot - IT Highway Egattur,
Chenai - 603103.

Dr. I. Mabju
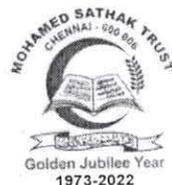Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973-2022

ISO 9001:2015 Certified byIRQS | NABOB QM 006 | CII AICTE CII SURVEY SILVER RANKING | Performer ARIIA | INSTITUTION'S INNOVATION COUNCIL

Certificate of Completion

This is to certify that Mr. / Ms. _____ THASRUDEEN R _____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"Staad Pro"** from 22nd August 2022 to 30th

November 2022. Conducted by Centre for Building Information Modeling,

Department of Civil Engineering.

Mr.R.Emilreyan
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A J College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot IT Highway Egattur,
Chennai - 603103.

Dr. I. Mabju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MSAJCE

From

> The Head of Department
>
> Department of Civil Engineering
>
> Mohamed Sathak A.J College of Engineering
>
> Chennai.

To

Permitted

03 01 23

> The Principal
>
> Mohamed Sathak A.J College of Engineering
>
> Chennai.

Respected Sir,

Sub – Value added course registration – Reg.

We have selected the CADD as a value added course for this even semester for III Year students of the (AY 2022 – 2023). So I kindly request you to approve the same to update in the Anna University web portal.

Thanking You

Yours Sincerely

R. 03/01/2023

Dr. Someswaran R.
HOD/CIVIL

Dr. Balakrishnan A.
Academic/Head

Dr. I. Manju
Technology Centre Head

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Dr. K. S. Srinivasan
Principal

DEPARTMENT OF CIVIL ENGINEERING

03-01-2023

MSAJCE

MSAJCE/CIVIL/009/ODD/2022-23

CIRCULAR

It is hereby informed to all the faculty members and Third year civil engineering students that the VAC as CADD for this semester. This course will be handled by Mr.Navaneethakrishnan C. The venue of the course is BIM lab.

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

HoD/Civil

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

VAC - STUDENTS NAME LIST

Department of Civil Engineering

Academic Year: 2022-23

Name of the Value Added Course : CADD			
Yr / Sem :III / U		Faculty In-charge :	Mr. Navaneethakrishnan C.
Location : BIM Lab		Duration :	40 Periods
Sl.No	Name of the Student	Register No.	Status of Qualifying
1	HABEEB MUSTHAFA M N	311820103001	Completed
2	MOHAMED FAHIM S	311820103002	Completed
3	RAJESH N	311820103003	Completed
4	YOGARAJ M	311820103004	Completed
5	ADIL SIRAJ C P	311820103301	Completed
6	AFSAR HAMEED H	311820103302	Completed
7	AHAMED RISWAN.M	311820103303	Completed
8	ISFAQ AHAMED B	311820103304	Completed
9	JAYASEELAN J	311820103305	Completed
10	LOGESHWARAN P	311820103306	Completed
11	MOHAMED JASSIM M	311820103307	Completed
12	MOHAMED YUSUF ARSHATH A	311820103308	Completed
13	MUSTHAQ J	311820103309	Completed
14	PRADEEP KUMAR K	311820103310	Completed
15	PRIYATHARSAN K	311820103311	Completed
16	RASEED AHAMED M	311820103312	Completed
17	SUDHARSAN A	311820103314	Completed
18			
19			
20			
21			
22			
23			
24			
25			

Head-Training

Signature of HoD with date

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
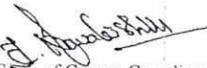Sipcot IT Highway Egattur,
Chennai - 603103.

Format No.: TLP 20

Rev.No.: 01

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

VALUE ADDED COURSE - COURSE CONTENT

Department of Civil Deparment

Class : III Year   Academic Year: 2022-2023

Name of the Value Added Course	CADD	Name of the handling Faculty	Mr. Navaneethakrishnan C

Course Objective

The objective of this course is to teach users the basic commands and tools necessary for professional 2D drawing, design and drafting using AutoCAD /

The objective of this course is to impart necessary and practical knowledge of Building Information Modeling (BIM) and Communicate a design idea , structural detailing ,concept graphically, visually.

Course Outcome

Students will able to work in interface of Autocad and create 2 dimensional drawings in Autocad.

Students will able to print out the drawing in Autocad in proper format.

Students will able to Autocad's plotter settings

Lesson Plan for VAC

Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	Basic about Autodesk and introduction to civil engineering , Usage of Autodesk, Component of Autocad ,	T1	3	CADD Software
2	Importance of drafting and designing , Basic about Auto CAD	T1	3	CADD Software
3	Types of drwaing , Views and Tools	T1	2	CADD Software
4	Different commands in Auto CAD	T1	2	CADD Software
5	Line command , Poly line command and Rectangle comman	T1	3	CADD Software
6	Move ,Rotate, Scale, copy, Mirror, erase, trim, extend	T1	2	CADD Software
7	Linear, Aligned, Radius ,Angular, Arc length	T1	2	CADD Software
8	Single line text ,Multiline text, Layer properties ,Insert blocks	T1	3	CADD Software
9	Geometric, Dimensional ,Manage	T2	2	CADD Software
10	Isometric top, left, right ,Isometric diagrams	T2	3	CADD Software
11	Isometric diagrams exercise	T2	2	CADD Software
12	Drawing units ,Sheet settings	T2	3	CADD Software
13	Save files ,Export pdf plot	T2	3	CADD Software
14	Drawing Area Setup ,Visual reference	T2	3	CADD Software
15	Grid snap mode	T2	2	CADD Software
16	Introduction to building drawing	T2	2	CADD Software

Quiz / Mini Projects / Model Develpoed if any

1. Drawing plan of G+2

2. Residential house public buildings

Text / Reference Books

1	Learn AutoCAD in a Easy Way Paperback – 1 January 2010 by Sunil K. Pandey
2	Civil Engineering Drawing & House Planning: A Text Book Paperback – 1 January 2006 by B. P. Verma
3	Latest House Designs Paperback – 1 January 2016 by Aditya Kamal

Website / URL References

1	https://youtu.be/pvKVy-eMDYc
2	https://youtu.be/s21KfdONMN8

Sign. of Course Coordinator

Sign. of HoD with date

Head-TC

Format No.: TLP 21

Rev. No.: 1.0

Rev. Date:04.01.21

Certificate of Completion

This is to certify that Mr. / Ms. _____Yogaraj_____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"Computed Aided Design & Drawing"** from

22nd August 2022 to 30th November 2022. Conducted by Centre for Building

Information Modeling, Department of Civil Engineering.

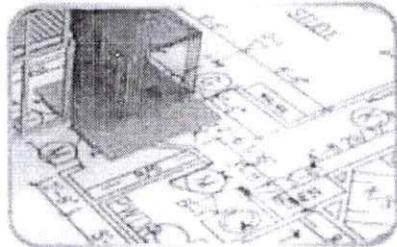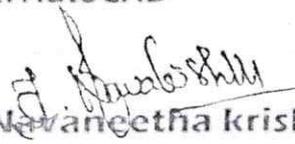Course Duration: 45 Hours
Course: AutoCAD

Mr.C.Navaneetha krishnan
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (SMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Dr. I. Manju
Head Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Certificate of Completion

This is to certify that Mr. / Ms. _____ Sudharsan _____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"Computed Aided Design & Drawing"** from

22nd August 2022 to 30th November 2022. Conducted by Centre for Building

Information Modeling, Department of Civil Engineering.

Course Duration: 45 Hours

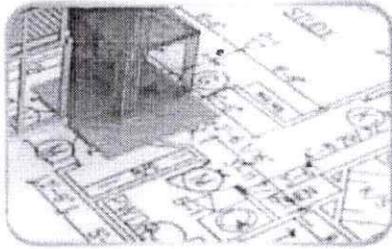Course: AutoCAD

Mr.C.Navaneetha krishnan
Course Co - ordinator

Dr. I. Manju
Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Certificate of Completion

This is to certify that Mr. / Ms. _____Logeswaran_____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"Computed Aided Design & Drawing"** from

22nd August 2022 to 30th November 2022. Conducted by Centre for Building

Information Modeling, Department of Civil Engineering.

Course Duration: 45 Hours
Course: AutoCAD

Mr.C.Navaneetha krishnan
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year 1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. _____Habeeb Musthafa_____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"Computed Aided Design & Drawing"** from

22nd August 2022 to 30th November 2022. Conducted by Centre for Building

Information Modeling, Department of Civil Engineering.

Course Duration: 45 Hours
Course: AutoCAD

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
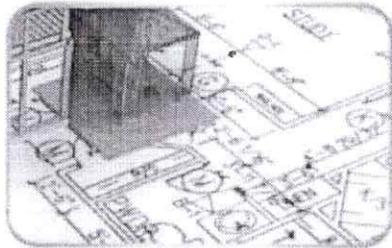Sipcot - IT Highway Egattur,
Chenai - 603103.

Mr.C.Navaneetha krishnan
Course Co-ordinator

Dr. I. Manju
Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MSAJCE

From

The Head of Department

Department of Civil Engineering

Mohamed Sathak A.J College of Engineering

Chennai.

To

The Principal

Mohamed Sathak A.J College of Engineering

Chennai.

Respected Sir,

Sub – Value added course registration – Reg.

We have selected the 3D Infrastructural Modelling (Lab integrated theory) as a value added course for this even semester for III Year students of the (AY 2022 – 2023). So I kindly request you to approve the same to update in the Anna University web portal.

Thanking You

Yours Sincerely

Dr. Someswaran R.
HOD/CIVIL

Dr. I. Manju
Technology Centre Head

Dr. Balakrishnan A.
Academic/Head

Dr. K. S. Srinivasan
Principal

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

DEPARTMENT OF CIVIL ENGINEERING

01-09-2022

MSAJCE

MSAJCE/CIVIL/006/ODD/2022-23

CIRCULAR

It is hereby informed to all the faculty members and Third year civil engineering students that the VAC as 3D Infrastructual Modeling for this semester. This course will be handled by Mrs. Janaki V. The venue of the course is BIM lab.

HoD/Civil

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

VAC - STUDENTS NAME LIST

Department of Civil Engineering

Academic Year: 2022-23

Name of the Value Added Course : 3D Infrastructural Modeling			
Yr / Sem : III		Faculty In-charge :	Mrs. Janaki V
Location : BIM Lab		Duration :	40 Periods
Sl.No	Name of the Student	Register No.	Status of Qualifying
1	HABEEB MUSTHAFA M N	311820103001	Completed
2	MOHAMED FAHIM S	311820103002	Completed
3	RAJESH N	311820103003	Completed
4	YOGARAJ M	311820103004	Completed
5	ADIL SIRAJ C P	311820103301	Completed
6	AFSAR HAMEED H	311820103302	Completed
7	AHAMED RISWAN.M	311820103303	Completed
8	ISFAQ AHAMED B	311820103304	Completed
9	JAYASEELAN J	311820103305	Completed
10	LOGESHWARAN P	311820103306	Completed
11	MOHAMED JASSIM M	311820103307	Completed
12	MOHAMED YUSUF ARSHATH A	311820103308	Completed
13	MUSTHAQ J	311820103309	Completed
14	PRADEEP KUMAR K	311820103310	Completed
15	PRIYATHARSAN K	311820103311	Completed
16	RASEED AHAMED M	311820103312	Completed
17	SUDHARSAN A	311820103314	Completed
18			
19			
20			
21			
22			
23			
24			
25			

Head-Training

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Signature of HoD with date

Format No.: TLP 20

Rev.No.: 01

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

VALUE ADDED COURSE - COURSE CONTENT

Department of Civil Engineering

Class : III Year

Academic Year: 2022 - 2023

Name of the Value Added Course	3D Infrastructural Modelling	Name of the handling Faculty	Mrs. V.Janaki

Course Objective
• The objective of this course is to impart necessary and practical knowledge of Building Information Modeling

Course Outcome
1. Understand basic concepts of Infrastructure construction planing and able to create new project .
2. To get exposure to 2D & 3D drawings and infrastructure design towards to our country development program
3. Predict and assess the impact of Infrastructure projects and planning of various industrial components
4. Know the requirements of various industries
5. To develop graphical skills for communicating concepts, innovative design, structural detailing and products

Lesson Plan for VAC				
Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	Introduction to 3D Infrastructural Modeling and Revit -	TB	1	Software
2	Creating a project	TB	1	Software
3	co-ordinate systems- reference planes.	TB	1	Software
4	Commands: Initial settings	RB	1	Software
5	Drawing aids	TB	1	Software
6	Drawing basic entities	TB	1	Software
7	Modify commands- Layers	TB	1	Software
8	Text and Dimensioning- Blocks	RB	1	Software
9	Drawing presentation norms and standards.	TB	1	Software
10	Introduction	RB	1	Software
11	Creating walls	RB	1	Software
12	Level	TB	1	Software
13	Girds	RB	1	Software
14	Creating Terrain	RB	1	Software
15	Adding exterior walls	TB	1	Software
16	Adding a roof	TB	1	Software
17	Adding floor	TB	1	Software
18	Adding interior walls.	TB	1	Software
19	Adding door, Adding windows	RB	1	Software
20	Adding components - Structural members	TB	1	Software
21	Using Model Builder in Infraworks	TB	1	Software
22	Creating a proposed street style	TB	1	Software
23	Creating a sketch road	RB	1	Software
24	Converting a sketch road to a design road	TB	1	Software
25	Creating a new design proposal and design road	TB	1	Software
26	Opening an Infraworks model in REVIT Civil 3D	TB	1	Software
27	Adding survey field data to the model.	TB	1	Software
28	Introduction of Creating Documenting	RB	1	Software

29	Documenting the Project	RB	1	Software
30	Continuation of Documenting the Project	RB	1	Software
31	Excersice of Documenting the Project	RB	1	Software
32	Sheets	RB	1	Software
33	Print	RB	1	Software
34	Schedules	RB	1	Software
35	Rooms	RB	1	Software
36	Areas and Legend	RB	1	Software
37	Adding a curtain wall	TB	1	Software
38	Attaching walls to the roof	TB	1	Software
39	Solar study	TB	1	Software
40	Walkthrough –Lights	TB	1	Software
41	Creating elevation	TB	1	Software
42	Modifying the entry deck	TB	1	Software
43	Adding a sloped floor	TB	1	Software
44	Adding stairs and railings	TB	1	Software
45	Modifying the roof	TB	1	Software
Quiz / Mini Projects / Model Develpoed if any				
Quiz And Model				
Text / Reference Books				
1	Malik R.S., Meo, G.S. (2009) Civil Engineering Drawing, Computech Publication Ltd New Asian.			
2	Sikka, V.B. (2013), A Course in Civil Engineering Drawing, S.K.Kataria& Sons			
Website / URL References				
1	Autodesk Revit 2017 MEP Fundamentals - SDC Publications.			
2	Mastering Autodesk Revit MEP 2016. Autodesk Official Press, Simon Whitbread			

Sign. of Course Coordinator

Sign. of HoD with date

I. M
Head-TC

Format No.: TLP 21

Rev. No.: 1.0

Rev. Date:04.01.21

Mohamed Sathak A J College of Engineering
Rajiv Gandhi Salai (OMR),Sipcot IT Park, Chennai - 603103.
WEB PORTAL - I & II
Academic year 2022-2023   Form 3 : Webportal Entry Sheet.
III YEAR - CIVIL ENGINEERING.

S. No	Reg No	Name of the Students	VALUE ADDED COURSE-3D INFRASTRUCTURE MODELLING			
			ATT (20)	MARK (50)	ATT (25)	MARK (50)
1	311820103001	HABEEB MUSTHAFA M N	18	45	23	50
2	311820103002	MOHAMED FAHIM S	19	50	24	50
3	311820103003	RAJESH N	19	45	24	50
4	311820103004	YOGARAJ M	20	48	24	50
5	311820103301	ADIL SIRAJ	18	50	23	50
6	311820103302	AFSAR HAMEED H	18	46	22	50
7	311820103303	AHAMED RISWAN.M	18	45	22	50
8	311820103304	ISFAQ AHAMED B	19	49	23	50
9	311820103305	JAYASEELAN	18	45	21	50
10	311820103306	LOGESHWARAN P	20	48	22	50
11	311820103307	MOHAMED JASSIM	20	50	24	50
12	311820103308	MOHAMED YUSUF ARSHATH A	20	45	25	50
13	311820103309	MUSTHAQ	17	40	20	45
14	311820103310	PRADEEP KUMAR K	20	50	24	50
15	311820103311	PRIYATHARSAN	20	50	24	50
16	311820103312	RASEED AHAMED M	17	48	21	50
17	311820103314	SUDHARSAN	18	45	22	50
SUBJECT FACULTY NAME			Mrs V. Janaki			
SUBJECT FACULTY SIGN.						

CLASS COORDINATOR

HOD

MOHAMED SATHAK

A.J. COLLEGE OF ENGINEERING

Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year 1973-2022

ISO 9001:2015 Certified byIRQS QM 006 — NABCB

CII AICTE CII SURVEY SILVER RANKING

Performer ARIIA

INSTITUTION'S INNOVATION COUNCIL

Certificate of Completion

This is to certify that Mr. / Ms. **RASEED AHAMED M** student of Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training program on **"3D Infrastructure Modeling"** from 3rd oct to 31st Oct 2022 . Conducted by Centre for Building Information Modeling, Department of Civil Engineering.

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Mrs. Janaki V.
Course Co - ordinator

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

MOHAMED SATHAK TRUST
CHENNAI - 600 006
Golden Jubilee Year
1973-2022

ISO 9001:2015
Certified byIRQS
NABCB
QM 006

CII
AICTE CII SURVEY
SILVER RANKING

Performer

INSTITUTION'S
INNOVATION COUNCIL

Certificate of Completion

This is to certify that Mr. / Ms. _____ **MOHAMED FAHIM S** _____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"3D Infrastructure Modeling"** from 3rd oct

to 31st Oct 2022 . Conducted by Centre for Building Information Modeling,
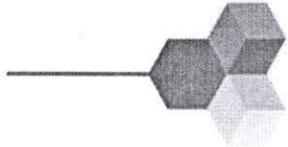
Department of Civil Engineering.

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Mrs. Janaki V.
Course Co - ordinator

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603 103.

MOHAMED SATHAK TRUST
CHENNAI - 600 006
Golden Jubilee Year
1973-2022

ISO 9001:2015 Certified byIRQS — NABCB QM 006

CII AICTE CII SURVEY SILVER RANKING

Performer

INSTITUTION'S INNOVATION COUNCIL

Certificate of Completion

This is to certify that Mr. / Ms. **RAJESH N** student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"3D Infrastructure Modeling"** from 3rd oct

to 31st Oct 2022 . Conducted by Centre for Building Information Modeling,

Department of Civil Engineering.

PRINCIPAL
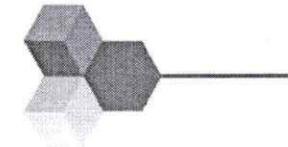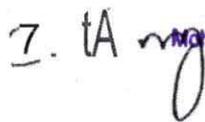Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103

Mrs. Janaki V.
Course Co - ordinator

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973-2022
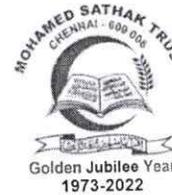
Certificate of Completion

This is to certify that Mr. / Ms. _____ **LOGESHWARAN P** _____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"3D Infrastructure Modeling"** from 3rd oct

to 31st Oct 2022 . Conducted by Centre for Building Information Modeling,
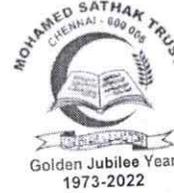
Department of Civil Engineering.

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103,

Mrs. Janaki V.
Course Co - ordinator
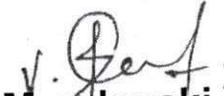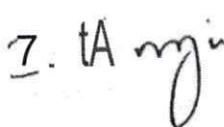
Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

ANNA UNIVERSITY :: CHENNAI - 600025.
OFFICE OF THE CONTROLLER OF EXAMINATIONS
Provisional Results of Nov. / Dec. Examination,2022.

Page 5/8

Inst.Code/Name : 3118 - MOHAMMED SATHAK A.J.COLLEGE OF ENGINEERING   Semester No. : 05   DATE OF PUBLICATION :DD-MM-YYYY
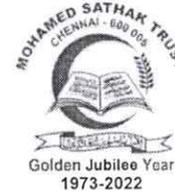
Branch : 103-B.E. Civil Engineering

Reg. Number	Subject Code -> Stud. Name	CE8501 Grade	CE8502 Grade	CE8511 Grade	CE8512 Grade	CE8513 Grade	CE8591 Grade	CVA034 Grade	EN8491 Grade	GE8071 Grade	ORO551 Grade	SB8001 Grade	SB8002 Grade
311820103001	HABEEB MUSTHAFA M N	U	B	A+	A+	A	B+	O	U	B	U	A+	
311820103002	MOHAMED FAHIM S	B	B	A+	O	O	B+	O	U	B	B	O	
311820103003	RAJESH N	B	B	O	O	O	A	O	U	B	U	O	
311820103004	YOGARAJ M	B	U	O	O	O	B+	O	U	B	B		O
311820103301	ADIL SIRAJ	B	U	O	A+	O	B+	O	U	B	B	A+	
311820103302	AFSAR HAMEED H	B	U	A+	A+	A+	B	O	U	B	B		O
311820103303	AHAMED RISWAN M	U	U	A	A+	A+	B+	A+	U	U	B	A+	
311820103304	ISFAQ AHAMED B	U	UA	A	A+	A	B	O	U	B	U	A+	
311820103305	JAYASEELAN J	U	U	A	A	A	U	O	U	U	U		A+
311820103306	LOGESHWARAN P	B	B+	O	O	A+	A	O	B	B	B+		O
311820103307	MOHAMED JASSIM M	B	B	A+	O	A+	A+	O	B	B	A		A+
311820103308	MOHAMED YUSUF ARSHATH A	B	U	A+	A+	A+	U	O	B	U	U		A+
311820103309	MUSTHAQ J	U	U	A	A	A	U	A+	U	U	U	B	
311820103310	PRADEEP KUMAR K	U	U	O	A+	O	B	O	B	U	B		O
311820103311	PRIYATHARSAN K	U	B	O	O	O	B	O	U	B	U		O
311820103312	RASEED AHAMED M	U	UA	A	A+	A+	U	O	U	U	B	A+	
311820103314	SUDHARSAN A	U	U	A	A+	A+	U	A+	U	B	B+	A+	

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

W - Withdrawal   I - Inadequate Attendance

WH1 - Withheld for Suspected Malpractice   WH(others) - Withheld for want of Clarification,approval,etc.

14-03-2023

Anna University - COE

Date:10/01/2023
MSAJCE

From

    Head of the Department,

    Department of Information Technology,

    MSAJCE.

TO

    The Principal,

    MSAJCE.

Permitted.

10 01 23

Respected Sir,

    Sub: Conducting CCNAV7:Switching , Routing , and Wireless

    Essentials -Reg.

    We have selected the following subject Add on course CCNAV7:

Switching , Routing , and Wireless Essentials for the upcoming semester (EVEN

SEM) (AY:2022-2023). So, I kindly request you to approve the same.

III –Year IT(R-2017).

1. CCNAV7:Switching , Routing , and Wireless Essentials

Thanking You

Yours faithfully

Date:06/08/2022

Department of Information Technology

Circular

It is here by to inform for all the students of, Information Technology, III year (2020-2024), there will be planned to conduct a Add on Course on "CCNA V7: Switching, Routing and Wireless Essentials" for the academic year 2022-2023 from the period 12.08.2022 to 14.10.2022 for the following students.

HOD/IT

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

SYLLABUS

CCNAV7:Switching , Routing , and Wireless Essentials

OBJECTIVE

The Students will be able to understand
- The architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI and TCP layered models to examine the nature, roles of protocols and services at the application, network, data link, and physical layers.
- The principles and structure of IP addressing and fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Labs use a "model Internet" to allow students to analyze real data without affecting production networks.
- Packet Tracer (PT) activities help students analyze protocol and network operation and build small networks in a simulated environment.

OUTCOME

The students will be able to
- Build simple LANs, perform basic configurations for routers, switches, and implement IP addressing schemes.
- Configure and troubleshoot routers, switches and resolve common VLAN routing issues in both IPv4 and IPv6 networks.
- Configure WAN technologies and network services required by converged applications in a complex network.
- Acquire the knowledge to use simulation tool to design an enterprise network and evaluate design alternatives.
- Finish a design of an enterprise network to support applications such as electronic mails, centralized database access, and client-server applications.
- Address various issues such as IP addresses assignment, choice of internetworking equipment and network performance will be considered in the network design.

CONTENT

Networking Today
Networks Affect Our Lives-Network Components - Network Representations and Typologies - Common Types of Networks - Internet Connections - Reliable Networks - Network Trends - Network Security - The IT Professional

Basic Switch and End Device Configuration
Cisco IOS Access IOS Navigation - The Command Structure - Basic Device Configuration - Save Configurations - Ports and Addresses - Configure IP Addressing - Verify Connectivity.

Protocol and Models

The Rules – Protocols Suites - Standards Organizations - Reference Models - Data Encapsulation - Data Access

Physical Layer

Purpose of the Physical Layer - Physical Layer Characteristics - Copper Cabling - UTP Cabling- Fiber-Optic Cabling - Wireless Media

Number Systems

Binary Number System - Hexadecimal Number System

Data Link Layer

Purpose of the Data Link Layer – Topologies - Data Link Frame

Ethernet Switching

Ethernet Frame - Ethernet MAC Address - The MAC Address Table - Switch Speeds and Forwarding Methods

Network Layer

Network Layer Characteristics - IPv4 & IPv6 Packet – Router Routing Table

Address Resolution

MAC and IP - ARP - Neighbor Discover

Basic Router Configuration

Configure Initial Router Settings - Configure Interfaces - Configure the Default Gateway

IPv4 Addressing

IPv4 Address Structure - IPv4 Unicast, Broadcast, and Multicast - Types of IPv4 Addresses - Network Segmentation - Subnet an IPv4 Network - Subnet a /16 and /8 Prefix - Subnet to Meet Requirements - Variable Length Subnet Masking - Structured Design

IPv6 Addressing

IPv6 Addressing - IPv6 Address Types - GUA and LLA Static Configuration - Dynamic Addressing for IPv6 GUAs - Dynamic Addressing for IPv6 LLAs - IPv6 Multicast Addresses - Subnet an IPv6 Network

ICMP

ICMP Messages - Ping and Trace route Testing

Transport Layer

Transportation of Data - TCP Overview - UDP Overview - Port Numbers - TCP Communication Process - Reliability and Flow Control - UDP Communication

Application Layer

Application, Presentation, and Session - Peer-to-Peer - Web and Email Protocols - IP Addressing Services - File Sharing Services

Network Security Fundamentals

Security Threats and Vulnerabilities - Network Attacks - Network Attack Mitigation - Device Security

Build a Small Network

Devices in a Small Network- Small Network Applications and Protocols - Scale to Larger Networks - Verify Connectivity - Host and IOS Commands - Troubleshooting Methodologies - Troubleshooting Scenarios

*Labs	24 hands-on and paper-based labs. Using Packet Tracer Tool, Cisco 4221 routers and 2960 switches

Total Hours: 70

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

Academic Year:2022-2023
Attendance Sheet(CCNA V7:Switching,Routing and Wireless Essentials)

Department: IT

S.No.	Reg. No.	Name of the Students	12/8	19/8	25/8	26/8	9/9	16/9	23/9	30/9	7/10	14/10
1	311820205001	ABDULLAH	a	P	P	a	P	P	P	P	P	a
3	311820205003	ABIRAMI V	P	P	P	P	a	P	P	P	a	a
4	311820205005	AISHWARYA. R	P	P	P	P	a	P	P	a	P	P
5	311820205006	ANAS AHAMED. A	P	P	P	P	P	a	a	P	P	P
7	311820205008	BOOBALAN V	P	P	P	P	P	P	P	P	P	P
8	311820205010	IMAAM JAFFAR J	P	P	P	a	P	P	P	P	P	P
9	311820205011	JAASIR AHAMED AJ	a	P	P	a	a	P	P	P	P	P
10	311820205012	JAMEERUDEEN .F	P	P	a	P	a	a	P	P	P	P
12	311820205015	LAVANYA.S	P	P	P	a	P	a	P	P	P	P
14	311820205017	MOHAMED AFSAR.M	P	a	a	a	P	P	P	P	P	P
15	311820205018	MOHAMED ASIF. H	P	P	P	P	a	P	a	a	P	P
16	311820205019	MOHAMED GHAZALI. P	P	P	P	P	a	P	P	a	P	a
18	311820205021	MOHAMMED AFRITH .R	a	P	a	a	P	P	P	P	P	P
19	311820205022	MOHAMMED FARHAN S M	P	P	P	P	a	P	a	P	P	P
20	311820205023	MOHAMMED FUYUJUR RAHMAN	a	a	a	P	P	P	P	P	P	P
21	311820205024	MOHAMMED HASHIR HASAN K	P	P	P	P	P	P	P	a	a	a
23	311820205026	MUHAMMED MIDLAJ A.C	P	P	P	P	P	a	a	P	P	a
24	311820205027	NANDHINI.R	P	P	a	P	a	P	P	P	P	P
26	311820205029	PAVITHRAA S	P	P	a	a	a	P	P	P	P	P
28	311820205031	PRABHA. M	P	P	P	P	P	P	P	a	a	a
29	311820205032	PRAMOTH M	a	a	P	P	P	P	P	P	P	a
30	311820205033	PUNNIYAKOTTI. S	a	a	P	P	a	P	P	P	P	P
31	311820205034	RAFIQ SHERIFF S	P	P	P	P	P	a	P	a	P	a
32	311820205035	RAHIMUNNISA S	a	P	P	a	P	P	a	P	P	P
33	311820205036	RAJESH. R	P	P	a	P	P	a	P	P	P	a
34	311820205037	REVATHI.U	P	P	a	P	P	a	P	P	P	P
36	311820205041	SEYED MOHAMED BUHARY M.H	P	a	a	a	P	P	P	P	P	P
37	311820205042	SHALINI.M	P	a	a	a	P	P	P	P	P	P
38	311820205043	SIVAPRAKASAM. N	P	P	P	a	P	a	a	P	P	P
39	311820205044	SUPRAJA V	a	a	P	P	P	P	P	P	P	a
40	311820205045	SYED ABBAS AFRID.M	P	P	a	a	P	P	P	P	P	a
41	311820205046	SYED ABBAS ALI	a	a	P	P	a	P	P	P	P	P
42	311820205047	SYED ALI. S	P	P	P	P	a	P	P	P	a	a
43	311820205048	SYED ANEES A	P	a	a	a	P	P	P	P	P	P
44	311820205050	VISHAL A	a	P	P	P	a	P	P	P	a	a
46	311820205301	ABUL AZEES SHAHIB	P	P	a	P	a	a	P	P	P	P
47	311820205302	ABDUL HASSAN HACHKANI SAHIB	a	a	a	P	P	P	P	P	P	P
48	311820205304	DHAKSHAN K	P	P	P	P	P	P	a	a	a	P
49	311820205305	HARISH.B	a	P	P	a	P	P	P	P	a	P
50	311820205306	KRISHNA KUMAR	a	a	a	P	P	P	P	P	P	P
52	311820205308	SANTHOSH	P	P	P	a	a	a	P	P	P	P
53	311820205311	THEMOTHEYU . S	P	P	P	a	P	P	a	P	P	a
54	311820205312	VINEETH	a	P	P	a	P	P	a	P	P	P

Faculty In-Charge

HOD/IT

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

Department of Information Technology

CCNAv7 CERTIFICATION - Switching, Routing and Wireless Essentials under Network Academy
Supported by CISCO

Academic Year - 2022 -2023

S.no	Reg. No.	Name of the Students
1	311820205001	Abdullah
2	311820205003	Abirami V
3	311820205005	Aishwarya. R
4	311820205006	Anas Ahamed. A
5	311820205008	Boobalan V
6	311820205010	Imaam Jaffar J
7	311820205011	Jaasir Ahamed Aj
8	311820205012	Jameerudeen .F
9	311820205015	Lavanya.S
10	311820205017	Mohamed Afsar.M
11	311820205018	Mohamed Asif. H
12	311820205019	Mohamed Ghazali. P
13	311820205021	Mohammed Afrith .R
14	311820205022	Mohammed Farhan S M
15	311820205023	Mohammed Fuyujur Rahman
16	311820205024	Mohammed Hashir Hasan K
17	311820205026	Muhammed Midlaj A.C
18	311820205027	Nandhini.R
19	311820205029	Pavithraa S
20	311820205031	Prabha. M
21	311820205032	Pramoth M
22	311820205033	Punniyakotti. S
23	311820205034	Rafiq Sheriff S
24	311820205036	Rajesh. R

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

23	311820205034	Rafiq Sheriff S
24	311820205036	Rajesh. R
25	311820205037	Revathi.U
26	311820205041	Seyed Mohamed Buhary M.H
27	311820205042	Shalini.M
28	311820205043	Sivaprakasam. N
29	311820205044	Supraja V
30	311820205045	Syed Abbas Afrid.M
31	311820205046	Syed Abbas Ali
32	311820205047	Syed Ali. S
33	311820205048	Syed Anees A
34	311820205049	Vasanth Kumar S
35	311820205050	Vishal A
36	311820205301	Abul Azees Sahib
37	311820205302	Abdul Hassan Hackain Sahib
38	311820205304	Dhakshan k
39	311820205305	Harish B
40	311820205306	Krishna Kumar
41	311820205308	Santhosh
42	311820205311	Themotheyu S
43	311820205312	Vineeth Baba

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

VALUE ADDED COURSE - COURSE CONTENT

Department of Information Technology

Class :III/V   Academic Year: 2022-23

Name of the Value Added Course	CCNA V7:Switching,Routing and Wireless Essentials	Name of the handling Faculty	HAMER SHIELD JM

Course Objective
1.The architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI and TCP layered models to examine the nature, roles of protocols and services at the application, network, data link, and physical layers.
2.The principles and structure of IP addressing and fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Labs use a "model Internet" to allow students to analyze real data without affecting production networks.
3.Packet Tracer (PT) activities help students analyze protocol and network operation and build small networks in a simulated environment.

Course Outcome
1. Build simple LANs, perform basic configurations for routers, switches, and implement IP addressing schemes.
2.Configure and troubleshoot routers, switches and resolve common VLAN routing issues in both IPv4 and IPv6 networks.
3.Configure WAN technologies and network services required by converged applications in a complex network.
4. Acquire the knowledge to use simulation tool to design an enterprise network and evaluate design alternatives.

Lesson Plan for VAC

Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
	Networking Today			
1	Networks Affect Our Lives-Network Components	T1	1	PPT
2	Network Representations and Topologies	T1	1	PPT
3	Common Types of Networks	T1	1	PPT
4	Internet Connections	T1	1	PPT
5	Reliable Networks	T1	1	PPT
6	Network Trends - Network Security - The IT Professional	T1	1	PPT

	Basic Switch and End Device Configuration			
7	Cisco IOS Access IOS Navigation - The Command Structure	T1	1	PPT
8	Basic Device Configuration	T1	1	PPT
9	Save Configurations - Ports and Addresses	T1	1	PPT
10	Configure IP Addressing	T1	1	PPT
11	Verify Connectivity	T1	1	PPT
	Protocol and Models			
12	The Rules – Protocols Suites	T1	1	PPT
13	Standards Organizations - Reference Models	T1	1	PPT
14	Data Encapsulation	T1	1	PPT
15	Data Access	T1	1	PPT
	Physical Layer			
16	Purpose of the Physical Layer	T1	1	PPT
17	Physical Layer Characteristics	T1	1	PPT
18	Copper Cabling - UTP Cabling	T1	1	PPT
19	Fiber-Optic Cabling	T1	1	PPT
20	Wireless Media	T1	1	PPT
	Number Systems			
21	Binary Number System - Hexadecimal Number System	T1	1	PPT
	Data Link Layer	T1		
22	Purpose of the Data Link Layer	T1	1	PPT
23	Topologies	T1	1	PPT
24	Data Link Frame	T1	1	PPT
	Ethernet Switching			
25	Ethernet Frame	T1	1	PPT
26	Ethernet MAC Address	T1	1	PPT
27	The MAC Address Table	T1	1	PPT
28	Switch Speeds and Forwarding Methods	T1	1	PPT

	Network Layer			
29	Network Layer Characteristics	T1	1	PPT
30	IPv4 & IPv6 Packet	T1	1	PPT
31	Router Routing Table	T1	1	PPT
	Address Resolution	T1	1	PPT
32	MAC and IP - ARP - Neighbor Discover	T1	1	PPT
	Basic Router Configuration			
33	Configure Initial Router Settings	T1	1	PPT
34	Configure Interfaces	T1	1	PPT
35	Configure the Default Gateway	T1	1	PPT
	IPv4 Addressing			PPT
36	IPv4 Address Structure	T1	1	PPT
37	IPv4 Unicast, Broadcast, and Multicast	T1	1	PPT
38	Types of IPv4 Addresses - Network Segmentation	T1	1	PPT
39	Subnet an IPv4 Network	T1	1	PPT
40	Subnet a /16 and /8 Prefix - Subnet to Meet Requirements	T1	1	PPT
41	Variable Length Subnet Masking - Structured Design	T1	1	PPT
	IPv6 Addressing			
42	IPv6 Addressing - IPv6 Address Types	T1	1	PPT
43	GUA and LLA Static Configuration	T1	1	PPT
44	Dynamic Addressing for IPv6 GUAs	T1	1	PPT
45	Dynamic Addressing for IPv6 LLAs	T1	1	PPT
46	IPv6 Multicast Addresses - Subnet an IPv6 Network	T1	1	PPT

	ICMP			
47	ICMP Messages - Ping and Trace route Testing	T1	1	PPT
48	Transport Layer	T1	1	PPT
49	Transportation of Data - TCP Overview	T1	1	PPT
50	UDP Overview - Port Numbers	T1	1	PPT
51	TCP Communication Process - Reliability and Flow Control	T1	1	PPT
52	UDP Communication	T1	1	PPT
	Application Layer		1	
53	Application, Presentation, and Session	T1	1	PPT
54	Peer-to-Peer - Web and Email Protocols	T1	1	PPT
55	IP Addressing Services - File Sharing Services	T1	1	PPT
	Network Security Fundamentals			
56	Security Threats and Vulnerabilities	T1	1	PPT
57	Network Attacks - Network Attack Mitigation	T1	1	PPT
58	Device Security	T1	1	PPT
	Build a Small Network			
59	Devices in a Small Network- Small Network Applications and Protocols	T1	1	PPT
60	Scale to Larger Networks	T1	1	PPT
61	Verify Connectivity	T1	1	PPT
62	Host and IOS Commands	T1	1	PPT
63	Troubleshooting Methodologies - Troubleshooting Scenarios	T1	1	PPT
	Text / Reference Books			
1	Networks : An Introduction, Mark Neuman, OUX Oxford Publications, 2018.			

Sign. of Course Coordinator

Sign. of HoD with date

ılıılı Corporate
        Social
CISCO   Responsibility

Cisco Networking Academy

Certificate of Course Completion

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Vishal A

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

17 Nov 2022

Location

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Vasanth kumar.S

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location
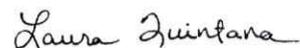
Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

17 Nov 2022

Date

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

Corporate
Social
Responsibility

CISCO

Certificate of Course Completion

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Themotheyu .S

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
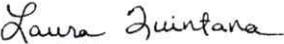- Configure IPv4 and IPv6 static routing on routers.

Syed Abbas ali

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering (OMR)
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Syed Anees Anees

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

supraja v

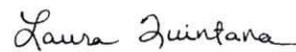Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

S.Syed Ali

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CISCO

Corporate
Social
Responsibility

Certificate of Course Completion

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.
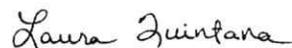
sivaprakasam N

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 600 103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
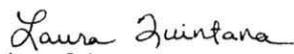- Configure IPv4 and IPv6 static routing on routers.

Seyed Mohamed Buhary

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Santhosh .R

Student

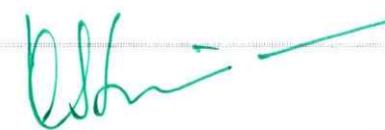**Mohamed Sathak A.J. College of Engineering**

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

s.abul hassan hackani sahib
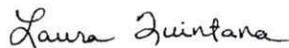
Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103,

ıı|ıı|ıı.
CISCO.
Corporate
Social
Responsibility

Certificate of Course Completion

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

S. Punniyakotti S. Harish

Student

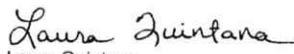**Mohamed Sathak A.J. College of Engineering**

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
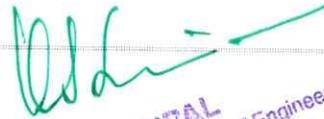Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

R RAJESH

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
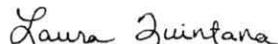- Configure IPv4 and IPv6 static routing on routers.

Revathi U

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

RAFIQ SHERIFF S

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Pramoth M

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

···|···|···
CISCO

Corporate
Social
Responsibility

Cisco Networking Academy

Certificate of Course Completion

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Prabha Moorthy

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Pavithraa S

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR),
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Nandhini R

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
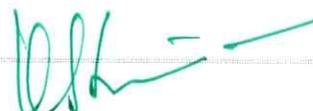Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

MUHAMMED MIDLAJ AC

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

M.shalini Munusamy

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Mohammed Farhan

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CISCO

Corporate
Social
Responsibility

Cisco Networking Academy

Certificate of Course Completion

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Mohammed Fuyujur Rahman

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CISCO. Corporate
Social
Responsibility

Certificate of Course Completion

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Mohammed Afrith R

Student

Mohamed Sathak A.J. College of Engineering
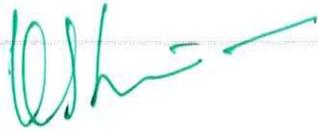
Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering.
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103,

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Mohamed Ghazali

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering (OMR)
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Mohamed Asif

Student

Mohamed Sathak A.J. College of Engineering
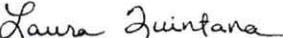
Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No 34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

┌───┐

·I|I·II|I· Corporate
 Social
CISCO. Responsibility

Certificate of Course Completion

Cisco Networking Academy

───

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Mohamed afsar. M

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CISCO Corporate Social Responsibility

Certificate of Course Completion

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
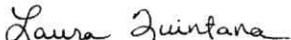- Configure IPv4 and IPv6 static routing on routers.

Lavanya Sudhakar

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

krishna kumar k

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

keerthana selvaganesh
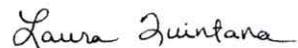
Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

K B vineeth baba

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

JAMEERUDEEN F

Student

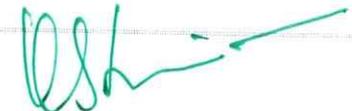**Mohamed Sathak A.J. College of Engineering**

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

··|··|··
CISCO

Corporate
Social
Responsibility

Cisco Networking Academy

Certificate of Course Completion

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Jaasir Ahamed

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Imaam Jaffar.J

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Hashir Hasan

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Harish B

Student
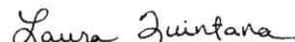
Mohamed Sathak A.J. College of Engineering
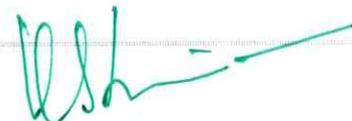
Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No 34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Dhakshan k

Student

Mohamed Sathak A.J. College of Engineering
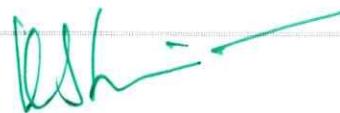
Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Boobalan.V Boobalan.V
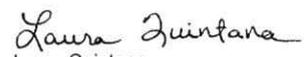
Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CISCO
Corporate Social Responsibility

Certificate of Course Completion

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Anas Ahamed

Student
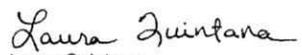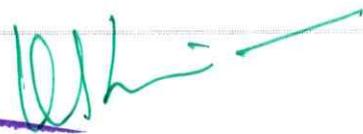
Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Aishwarya R

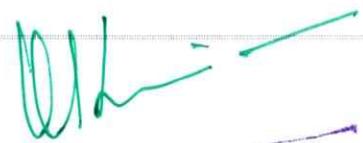Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

abdul azees sahib

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur
Chenai - 603103.

·ı|ı·ı|ı·
CISCO.
Corporate
Social
Responsibility

Cisco Networking Academy

Certificate of Course Completion

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Abbas Afrid

Student
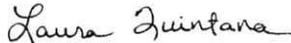
Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Abdullah .S

Student

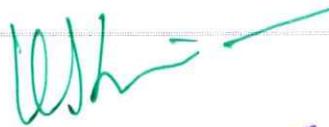**Mohamed Sathak A.J. College of Engineering**

Academy Name

India

Location

15 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

ıı|ıı.ı|ıı. Corporate
CISCO . Social
Responsibility

Certificate of Course Completion

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
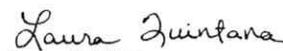- Configure IPv4 and IPv6 static routing on routers.

Abirami. V

Student
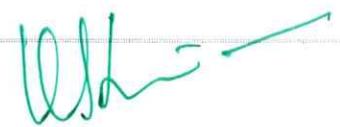
Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

17 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engin
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

CCNA CERTIFICATES SUPPORTED BY CISCO

STUDENT CERTIFICATION DETAILS

Department of Computer Science and Engineering

S.NO	COURSE NAME	ACADEMIC YEAR	TOTAL NUMBER OF STUDENTS CERTIFIED
1	CCNA V7-Switching, Routing and Wireless Essentials	2022-2023	43

HOD/CSE

Head of the Department

DEPARTMENT OF CSE

Mohamed Sathak A.J.College of Engineering

Date:10/01/2023
MSAJCE

From

Head of the Department,

Department of Computer Science and Engineering,

MSAJCE.

TO

The Principal,

MSAJCE.

Permitted

Respected Sir,

Sub: Conducting CCNAV7:Switching , Routing , and Wireless Essentials -Reg.

We have selected the following subject Add on course CCNAV7: Switching , Routing , and Wireless Essentials for the upcoming semester (EVEN SEM) (AY:2022-2023). So, I kindly request you to approve the same.

III –Year CSE (R-2017)

1. CCNAV7:Switching , Routing , and Wireless Essentials

PRINCIPAL
...ak A.J. College of ...
...ajiv Gandhi Sala...
...ot - IT Highway ...attur,
Chenai - 603105.

Thanking You

Yours faithfully

Date:06/08/2022

Department of Computer Science and Engineering

Circular

It is here by to informed to all the students of , Computer Science and Engineering, III year (2020-2024) we have planned to conduct a Add on Course on "CCNAV7:Switching , Routing , and Wireless Essentials" for the academic year 2022-2023 from the period 12.08.2022 to 14.10.2022 for the following students.

HOD/CSE

PRINCIPAL
Mohamed Sathak A.J. College of
No.34, Rajiv Gandhi Salai
Sipcot - IT Highway Egattur,
Chenai - 603103.

SYLLABUS

CCNAV7:Switching , Routing , and Wireless Essentials

OBJECTIVE

The Students will be able to understand

- The architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI and TCP layered models to examine the nature, roles of protocols and services at the application, network, data link, and physical layers.
- The principles and structure of IP addressing and fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Labs use a "model Internet" to allow students to analyze real data without affecting production networks.
- Packet Tracer (PT) activities help students analyze protocol and network operation and build small networks in a simulated environment.

OUTCOME

The students will be able to

- Build simple LANs, perform basic configurations for routers, switches, and implement IP addressing schemes.
- Configure and troubleshoot routers, switches and resolve common VLAN routing issues in both IPv4 and IPv6 networks.
- Configure WAN technologies and network services required by converged applications in a complex network.
- Acquire the knowledge to use simulation tool to design an enterprise network and evaluate design alternatives.
- Finish a design of an enterprise network to support applications such as electronic mails, centralized database access, and client-server applications.
- Address various issues such as IP addresses assignment, choice of internetworking equipment and network performance will be considered in the network design.

CONTENT

Networking Today
Networks Affect Our Lives - Network Components - Network Representations and Typologies - Common Types of Networks - Internet Connections - Reliable Networks - Network Trends - Network Security - The IT Professional

Basic Switch and End Device Configuration
Cisco IOS Access IOS Navigation - The Command Structure - Basic Device Configuration - Save Configurations - Ports and Addresses - Configure IP Addressing - Verify Connectivity.

Protocol and Models
The Rules – Protocols Suites - Standards Organizations - Reference Models - Data Encapsulation - Data Access

Physical Layer
Purpose of the Physical Layer - Physical Layer Characteristics - Copper Cabling - UTP Cabling- Fiber-Optic Cabling - Wireless Media

Number Systems
Binary Number System - Hexadecimal Number System

Data Link Layer
Purpose of the Data Link Layer – Topologies - Data Link Frame

Ethernet Switching
Ethernet Frame - Ethernet MAC Address - The MAC Address Table - Switch Speeds and Forwarding Methods

Network Layer
Network Layer Characteristics - IPv4 & IPv6 Packet – Router Routing Table

Address Resolution
MAC and IP - ARP - Neighbor Discover

Basic Router Configuration
Configure Initial Router Settings - Configure Interfaces - Configure the Default Gateway

IPv4 Addressing
IPv4 Address Structure - IPv4 Unicast, Broadcast, and Multicast - Types of IPv4 Addresses - Network Segmentation - Subnet an IPv4 Network - Subnet a /16 and /8 Prefix - Subnet to Meet Requirements - Variable Length Subnet Masking - Structured Design

IPv6 Addressing
IPv6 Addressing - IPv6 Address Types - GUA and LLA Static Configuration - Dynamic Addressing for IPv6 GUAs - Dynamic Addressing for IPv6 LLAs - IPv6 Multicast Addresses - Subnet an IPv6 Network

ICMP
ICMP Messages - Ping and Trace route Testing

Transport Layer
Transportation of Data - TCP Overview - UDP Overview - Port Numbers - TCP Communication Process - Reliability and Flow Control - UDP Communication

Application Layer
Application, Presentation, and Session - Peer-to-Peer - Web and Email Protocols - IP Addressing Services - File Sharing Services

Network Security Fundamentals
Security Threats and Vulnerabilities - Network Attacks - Network Attack Mitigation - Device Security

Build a Small Network
Devices in a Small Network- Small Network Applications and Protocols - Scale to Larger Networks - Verify Connectivity - Host and IOS Commands - Troubleshooting Methodologies - Troubleshooting Scenarios

*Labs	24 hands-on and paper-based labs. Using Packet Tracer Tool, Cisco 4221 routers and 2960 switches

Total Hours:70

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai – 603103

VALUE ADDED COURSE - COURSE CONTENT

Department of Computer Science and Engineering

Class : III/V   Academic Year: 2022-23

Name of the Value Added Course	CCNAV7:Switching , Routing , and Wireless Essentials	Name of the handling Faculty	HAMER SHIELD JM

Course Objective
1.The architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI and TCP layered models to examine the nature, roles of protocols and services at the application, network, data link, and physical layers.
2.The principles and structure of IP addressing and fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Labs use a "model Internet" to allow students to analyze real data without affecting production networks.
3.Packet Tracer (PT) activities help students analyze protocol and network operation and build small networks in a simulated environment.

Course Outcome
1. Build simple LANs, perform basic configurations for routers, switches, and implement IP addressing schemes.
2.Configure and troubleshoot routers, switches and resolve common VLAN routing issues in both IPv4 and IPv6 networks.
3.Configure WAN technologies and network services required by converged applications in a complex network.
4. Acquire the knowledge to use simulation tool to design an enterprise network and evaluate design alternatives.

	Lesson Plan for VAC			
Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
	Networking Today			
1	Networks Affect Our Lives-Network Components	T1	1	PPT
2	Network Representations and Topologies	T1	1	PPT
3	Common Types of Networks	T1	1	PPT
4	Internet Connections	T1	1	PPT
5	Reliable Networks	T1	1	PPT
6	Network Trends - Network Security - The IT Professional	T1	1	PPT
	Basic Switch and End Device Configuration			
7	Cisco IOS Access IOS Navigation - The Command Structure	T1	1	PPT
8	Basic Device Configuration	T1	1	PPT
9	Save Configurations - Ports and Addresses	T1	1	PPT
10	Configure IP Addressing	T1	1	PPT
11	Verify Connectivity	T1	1	PPT
	Protocol and Models			
12	The Rules – Protocols Suites	T1	1	PPT
13	Standards Organizations - Reference Models	T1	1	PPT
14	Data Encapsulation	T1	1	PPT

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

15	Data Access	T1	1	PPT
	Physical Layer			
16	Purpose of the Physical Layer	T1	1	PPT
17	Physical Layer Characteristics	T1	1	PPT
18	Copper Cabling - UTP Cabling	T1	1	PPT
19	Fiber-Optic Cabling	T1	1	PPT
20	Wireless Media	T1	1	PPT
	Number Systems			
21	Binary Number System - Hexadecimal Number System	T1	1	PPT
	Data Link Layer	T1		
22	Purpose of the Data Link Layer	T1	1	PPT
23	Topologies	T1	1	PPT
24	Data Link Frame	T1	1	PPT
	Ethernet Switching			
25	Ethernet Frame	T1	1	PPT
26	Ethernet MAC Address	T1	1	PPT
27	The MAC Address Table	T1	1	PPT
28	Switch Speeds and Forwarding Methods	T1	1	PPT
	Network Layer			
29	Network Layer Characteristics	T1	1	PPT

30	IPv4 & IPv6 Packet	T1	1	PPT
31	Router Routing Table	T1	1	PPT
	Address Resolution	T1	1	PPT
32	MAC and IP - ARP - Neighbor Discover	T1	1	PPT
	Basic Router Configuration			
33	Configure Initial Router Settings	T1	1	PPT
34	Configure Interfaces	T1	1	PPT
35	Configure the Default Gateway	T1	1	PPT
	IPv4 Addressing			PPT
36	IPv4 Address Structure	T1	1	PPT
37	IPv4 Unicast, Broadcast, and Multicast	T1	1	PPT
38	Types of IPv4 Addresses - Network Segmentation	T1	1	PPT
39	Subnet an IPv4 Network	T1	1	PPT
40	Subnet a /16 and /8 Prefix - Subnet to Meet Requirements	T1	1	PPT
41	Variable Length Subnet Masking - Structured Design	T1	1	PPT
	IPv6 Addressing			
42	IPv6 Addressing - IPv6 Address Types	T1	1	PPT
43	GUA and LLA Static Configuration	T1	1	PPT

44	Dynamic Addressing for IPv6 GUAs	T1	1	PPT
45	Dynamic Addressing for IPv6 LLAs	T1	1	PPT
46	IPv6 Multicast Addresses - Subnet an IPv6 Network	T1	1	PPT
	ICMP			
47	ICMP Messages - Ping and Trace route Testing	T1	1	PPT
48	Transport Layer	T1	1	PPT
49	Transportation of Data - TCP Overview	T1	1	PPT
50	UDP Overview - Port Numbers	T1	1	PPT
51	TCP Communication Process - Reliability and Flow Control	T1	1	PPT
52	UDP Communication	T1	1	PPT
	Application Layer		1	
53	Application, Presentation, and Session	T1	1	PPT
54	Peer-to-Peer - Web and Email Protocols	T1	1	PPT
55	IP Addressing Services - File Sharing Services	T1	1	PPT
	Network Security Fundamentals			
56	Security Threats and Vulnerabilities	T1	1	PPT
57	Network Attacks - Network Attack Mitigation	T1	1	PPT

58	Device Security	T1	1	PPT
	Build a Small Network			
59	Devices in a Small Network- Small Network Applications and Protocols	T1	1	PPT
60	Scale to Larger Networks	T1	1	PPT
61	Verify Connectivity	T1	1	PPT
62	Host and IOS Commands	T1	1	PPT
63	Troubleshooting Methodologies - Troubleshooting Scenarios	T1	1	PPT
	Text / Reference Books			
1	Networks : An Introduction, Mark Neuman, OUX Oxford Publications, 2018.			

Sign. of Course Coordinator

Sign. of HoD with date

Head-TC

Format No.: TLP 21

Rev. No.: 1.0

Rev. Date:04.01.21

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

Department of Computer Science and Engineering
CCNAV7:Switching , Routing , and Wireless Essentials
STUDENTS NAME LIST

Academic Year:2022-23
Year/Sem:III/V

Faculty In-Charge: Hamer shierd

Name of the Value Added Course : CCNAV7:Switching , Routing , and Wireless Essentials

Sl.No	Name of the Student	Register No.	Status of Qualifying	Sign of Student
1	ABINAYA BHARATHI. M	311820104002	YES	
2	ABISH K	311820104003	YES	
3	ABRAR MUSHARAF P	311820104004	YES	
4	ALTHAF. J	311820104005	YES	
5	ARSATH KHAN. A	311820104006	YES	
6	ARUN. G	311820104008	YES	
7	AYSHA THASLIM. A	311820104009	YES	
8	DILIPAN.D.G	311820104010	YES	
9	ELANGO. V	311820104011	YES	
10	ELANGOVAN. G	311820104012	YES	
11	IMRAAN. H	311820104013	YES	
12	JALEEL AHAMED K	311820104014	YES	
13	KARAN R	311820104015	YES	
14	LALITH ADITHYAN. H	311820104016	YES	
15	MOHAMED ABDUL KALAM S	311820104017	YES	
16	MOHAMED ASIQ ALI A	311820104018	YES	
17	MOHAMED HANIFA HARISH	311820104019	YES	
18	MOHAMED JASHIM. A	311820104020	YES	
19	MOHAMED NABEEL. A	311820104021	YES	
20	MOHAMED NOWFEES. A	311820104022	YES	
21	MOHAMED SALMAN. A	311820104023	YES	
22	MOHAMMED HASEEB RAKSHAN. P	311820104024	YES	
23	MOHAMED KHAJA NAWAZ. A	311820104025	YES	
24	MOHAMMED RIZWAN K.R	311820104026	YES	
25	MOHAMED SIDDIQUE. C	311820104027	YES	
26	MUSHARAF MUBEEN. A	311820104028	YES	
27	NAVEEN KUMAR	311820104029	YES	
28	NITHISH KUMAR S	311820104030	YES	
29	SHAIKH ZAITH. R	311820104035	YES	

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103,

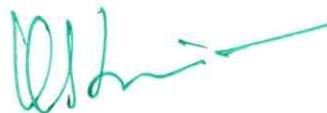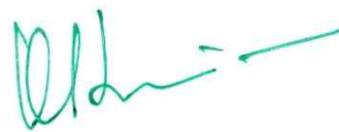# MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

Department of Computer Science and Engineering
CCNAV7:Switching , Routing , and Wireless Essentials- STUDENTS NAME LIST
Academic Year:2022-23

Year/Sem:III/V

Faculty In-Charge: Hamer shierd

Name of the Value Added Course : CCNAV7:Switching , Routing , and Wireless Essentials

Yr / Sem :III/V

Sl.No	Name of the Student	Register No.	12/1	19/1	20/1	9/2	9/2	16/2	23/2	17/2	20/2	24/2	27/2	28/2	27/2	27/2	28/2
			1	✓	1	a	l	l	l	l	l	l	l	l	l	l	l
1	ABINAYA BHARATHI. M	311820104002	/	/	/	/	/	/	a	/	/	a	/	/	/	/	/
2	ABISH K	311820104003	/	/	/	a	/	/	/	/	/	a	/	/	/	/	/
3	ABRAR MUSHARAF P	311820104004	/	?	/	/	/	/	/	/	/	/	/	a	/	/	/
4	ALTHAF. J	311820104005	a	/	/	/	a	/	/	/	/	/	/	a	/	/	a
5	ARSATH KHAN. A	311820104006	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/
6	ARUN. G	311820104008	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/
7	AYSHA THASLIM. A	311820104009	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
8	DILIPAN.D.G	311820104010	/	/	/	/	/	a	/	/	/	a	/	/	/	/	/
9	ELANGO. V	311820104011	a	a	/	/	/	/	/	/	/	/	/	/	/	/	/
10	ELANGOVAN. G	311820104012	/	/	/	/	a	/	/	/	/	/	/	/	/	a	/
11	IMRAAN. H	311820104013	/	/	/	/	/	/	/	a	/	/	/	/	/	/	/
12	JALEEL AHAMED K	311820104014	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
13	KARAN R	311820104015	/	/	/	/	/	/	/	/	/	/	a	/	/	/	/
14	LALITH ADITHYAN. H	311820104016	a	/	/	/	/	/	/	a	/	/	/	/	/	/	/
15	MOHAMED ABDUL KALAM S	311820104017	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
16	MOHAMED ASIQ ALI A	311820104018	/	/	/	/	/	/	a	/	/	/	/	a	/	/	/
17	MOHAMED HANIFA HARISH	311820104019	/	/	a	/	/	/	/	/	/	/	/	/	/	a	/
18	MOHAMED JASHIM. A	311820104020	/	/	/	/	/	/	/	/	/	/	/	/	/	a	/
19	MOHAMED NABEEL. A	311820104021	a	a	/	/	/	/	/	/	/	/	/	/	/	/	/
20	MOHAMED NOWFEES. A	311820104022	/	/	/	/	a	/	/	/	a	/	/	/	a	/	/
21	MOHAMED SALMAN. A	311820104023	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/

S.No	Name	Reg. No															
22	RAKSHAN. P	311820104024	/	/	/	a	/	/	/	/	/	/	/	/	a	/	/
23	MOHAMED KHAJA NAWAZ. A	311820104025	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/
24	MOHAMMED RIZWAN K.R	311820104026	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/
25	MOHAMED SIDDIQUE. C	311820104027	a	/	/	/	/	/	/	/	/	/	/	a	/	/	/
26	MUSHARAF MUBEEN. A	311820104028	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/
27	NAVEEN KUMAR	311820104029	/	/	/	/	/	/	/	/	/	/	/	/	/	/	a
28	NITHISH KUMAR S	311820104030	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
29	SHAIKH ZAITH. R	311820104035	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/
30	SULTHAN NIFAN. S	311820104036	a	/	/	/	/	/	/	a	/	/	/	/	/	/	/
31	VINITH. D	311820104038	/	/	/	/	/	/	/	/	/	a	/	/	/	/	/
32	VINITHA. M	311820104039	/	/	/	/	a	/	/	/	/	/	/	/	/	/	a
33	YOGARAJ. S	311820104040	/	/	/	/	/	/	/	/	a	/	/	/	/	/	/
34	YUVAN.R.K	311820104041	/	/	/	/	/	/	/	/	/	a	a	a	/	/	/
35	ASHAR.A	311820104301	/	/	/	/	/	/	a	/	/	/	/	/	/	/	/
36	BARATHWAJ.M	311820104302	/	/	/	/	a	/	/	/	a	/	/	/	/	/	/
37	HUDA.F	311820104305	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/
38	MANISH PRASAD.V	311820104306	/	/	/	/	/	/	/	a	/	/	/	/	/	a	/
39	MOHAMMED THAYYAB.A.R	311820104307	a	/	/	/	/	/	/	/	/	/	a	/	a	/	/
40	ARUNACHALAM .B	311820104308	/	/	a	a	/	/	/	/	/	/	/	/	/	/	/
41	SURYA.S	311820104309	a	/	/	/	/	/	/	/	/	/	/	/	/	a	/
42	SURYA KANTH.S	311820104310	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
43	RABIDUDEN	311820104701	/	/	/	/	/	/	/	/	/	/	/	/	/	/	a

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

M Abinaya bharathi

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR),
Sipcot - IT Highway Egattur,
Chenai - 603103. Networking Academy

K. Abish

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Arsath khan. A

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

ARUN G

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Elango v

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engin...
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

G ELANGOVAN

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

.¡|¡.¡|¡. Corporate
            Social
CISCO. Responsibility
Certificate of Course Completion

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Karan R

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

.¡|¡.¡|¡. Corporate
            Social
CISCO. Responsibility
Certificate of Course Completion

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Lalith Adithyan

Student

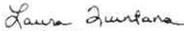**Mohamed Sathak A.J. College of Engineering**

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Mohamed Hanifa Harish

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. Cisco Networking Academy
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Mohamed Jashim. A

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Mohamed Salman
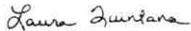
Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana.
Laura Quintana
VP & General Manager, Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

MOHAMMED HASEEB RAKSHAN P

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Mohammed Siddique
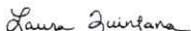
Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

MUSHARAF MUBEEN .A
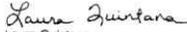
Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

ılıılı. Corporate
CISCO. Social
Responsibility
Certificate of Course Completion

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Riswan M
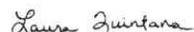
Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India   **16 Nov 2022**

Location   Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway, Egattur,
Chenai - 603103.

ılıılı. Corporate
CISCO. Social
Responsibility
Certificate of Course Completion

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Sakthivel Hariharan
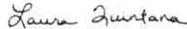
Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India   **16 Nov 2022**

Location   Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

SULTHAN NIFAN.S
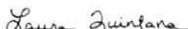
Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Cisco Networking Academy
Mohamed Sathak A.J.
No.34, Rajiv Gandhi
Sipcot - IT High
Chenai - 60

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

VINITH. D D

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Yuvan R K
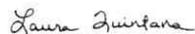
Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi
Sipcot - IT Highway
Chennai - 603 103.

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

BARATHWAJ M

Student
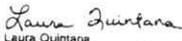
Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Mohamme Thayyab A R
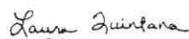
Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur
Chenai - 603103.

Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

MONISHWARAN ARUNACHALAM B

Student

Mohamed Sathak A.J. College of Engineering

Academy Name

India

Location

16 Nov 2022

Date

Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

CCNAv7: Switching, Routing, and Wireless Essentials

The student has successfully achieved student level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.

- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Seyed Ahamed Rabiudeen N

Student

Mohamed Sathak A.J. College of Engineering
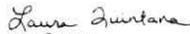
Academy Name

India

Location

16 Nov 2022

Date
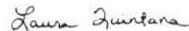
Laura Quintana
Laura Quintana
VP & General Manager, Cisco Networking Academy

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (......),
Sipcot - IT Highway Eg......,
Chenai - 603103.

From

Dr.M.Shivakumar

Head/ECE

Department of Electronics and Communication Engineering

Mohamed Sathak AJ College of Engineering College,

Siruseri (IT Park), Chennai- 603103.

To

The Principal,

Mohamed Sathak AJ College of Engineering College,

Siruseri (IT Park), Chennai- 603103.

Respected sir,

Sub:

Sub: Permission for conducting ADD on course – reg.

With reference to the above cited subject, we have proposed to conduct ADD on courses for the students of ECE department in the Academic Year 2022-2023 (Odd Semester) under Technology Centre. The selected courses are useful to the students for learning the emerging technical fields.

Kindly provide the permission for the same.

Year/Sem	Title	Duration
IIECE	SCI Lab	30 Hrs

Thanking you

Place: Chennai

Date:

Your's faithfully

(Dr.M.SIVAKUMAR)

DEPARTMENT OF ECE

Date:10/8/2022

Ref:01/MSAJCE/ECE/ODD/2022-2023

CIRCULAR

We the department of Electronics and communication Engineering, planned to conduct the Add on/Value added course for the below mentioned students for this Academic Year 2022-2023. (Odd sem).

Year/Sem	Title	Duration	Course Coordinator
II ECE	SCI LAB	30 Hrs	Ms.S.Anusuya AP/ECE

Venue: Computer Lab II (Room No: 202)

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.
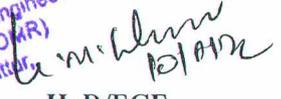
HoD/ECE

Copy To:

Department of ECE.

IQAC

Notice Board

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

TIMETABLE

Academic year	2022-2023	Department	ECE
Semester	III	Lab Name	SCI LAB
Lab In-charge	Mrs.S.Anusuya AP/ECE	Lab Assistant	
Location of the lab	204 -DSP LAB		

Period/Day	1 8.00-8.45 AM	2 8.45-09.30 AM	3 09.30-10.15 AM	10.15-10.30 AM	4 10.30-11.15 AM	5 11.15-12.00 PM	6 12.00-12.45 PM	12.45-1.30 PM	7 1.30-2.30 PM	8 2.30-3.30 PM
MON				TEA BREAK				LUNCH BREAK		
TUE										
WED									SCI LAB	
THU										
FRI										
SAT										

THEORY& LABORATORY DETAILS:

S.No	Subject Code	Name of the Subject	Name of the Faculty	Dept	No. of Hours per Week
1		SCI LAB	Mrs.S.Anusuya AP/ECE	ECE	2

Timetable Coordinator
(Name & Sign)
[JAYANTHI·E
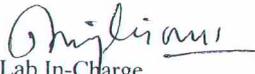
Lab In-Charge
(Name & Sign)
[S.Priyadharshini]
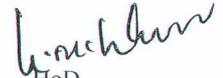
HoD
(Name & Sign)
(DR.M.SIVAKUMAR)

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

COE - COURSE CONTENT

Department of ECE

Class :II ECE   Academic Year: 2022 - 2023

Name of the Course	SCI lab	Name of the handling Faculty	S.Anusuya

Course Objective
1) To expose student and gain knowledge about Sci Lab
2) To program and construct applications using Sci Lab

Course Outcome	
CO1	Understand basic concepts(instructions) of Sci lab
CO2	write and execute application(Signals and systems, Electonic circuits etc) based program using Scilab

Lesson Plan

Sl. No.	Topic	Periods Required	Mode of Teaching
1	Introduction about Sci Lab	2	PPT
2	Study of basic Scilab Commands	2	LAB
3	Relational and bitwise operations	2	LAB
4	Control Structures (If-Else, If-elseif –else, Select)	2	LAB
5	Control Structures (If-Else, If-elseif –else, Select)	2	LAB
6	Graphics- 2D plots	2	LAB
7	Signal generation (fourier Series)	2	LAB
8	Signals operations (Time scaling)9	2	LAB
9	I and V calculation of self bias circuits	2	LAB
10	Circuits applications- KCL	2	LAB
11	Control system application 1	3	LAB
12	Control system application 2	3	LAB
13	Assignment program-Any application	2	LAB
14	Assesment 1	2	LAB

Quiz / Mini Projects / Model Develpoed if any
Assignment - program execution (Application based)

Reference Material	
1	LAB MANUAL

Website / URL References	
1	https://www.youtube.com/watch?v=bHVOPECO8-o
2	https://www.scilab.org/tutorials

Sign. of Course Coordinator

Sign. of HoD
with date

Head-I'C

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

VAC - STUDENTS NAME LIST

Department of ......ECE.........

Academic Year: 2022-2023

Name of the Value Added Course : SCI LAB				
Yr / Sem :II/III		Faculty In-charge : Ms.P.Anusuya ,AP/ECE		
Location : ONLINE	Duration :45 Hrs			
Sl.No	Name of the Student	Register No.	Status of Qualifying	Sign of Student
1	ABDUL BAASIT.A	311821106001	YES	AbdulBasit
2	ABINAYA V	311821106002	YES	Abinaya
3	ANISH KUMAR K	311821106003	YES	Anishkumar
4	ARIHARAN	311821106004	YES	Ariharan
5	ASMA FATHIMA F T	311821106005	YES	Fathima
6	BHAVANI H	311821106006	YES	Bhavani
7	CHITHRA S	311821106007	YES	Chithra
8	DHINESH C	311821106008	YES	Dinesh
9	GAJENDIRAN R	311821106009	YES	Gajendiran
10	GOPI K	311821106010	YES	Gopi
11	HAARISTHAMEEM ANSARI	311821106011	YES	Ansari
12	HALITH UMAR R	311821106012	YES	Halith Umar
13	HUMAIRA NUSRATH	311821106013	YES	Halith Umar
14	JAYASUDHAN J	311821106014	YES	JayaSudhan
15	KISHORE D	311821106015	YES	kishore
16	MAHESWARAN R	311821106016	YES	
17	MAJITHUL HIKKUM	311821106017	YES	
18	MOHAMED FARAJKHAN R	311821106018	YES	Yahya
19	MOHAMED YAHYA N I	311821106019	YES	Farajkn
20	MOHAMMED AATHIF M	311821106020	YES	Aathif
21	MOHAMMED IBRAHIM	311821106021	YES	Ibrahim
22	NANDHINI A	311821106023	YES	Nandhini A
23	NANDHINI K	311821106024	YES	Nandhini K
24	PAVITHRA S	311821106025	YES	pavithra
25	PUSHPA P	311821106026	YES	Pushpa
26	SAFIA FARHEEN Z R	311821106027	YES	Safia
27	SANJAY V	311821106028	YES	Sanjay
28	SIBY C	311821106030	YES	Siby
29	SOWNDHARYA G	311821106031	YES	Sow
30	SUHAIL K	311821106032	YES	Suhail
31	SURYA T	311821106033	YES	Surya.T
32	SUVAN KUMAR R	311821106034	YES	Suvankuma
33	SYED AFRID I	311821106035	YES	SyedAfrid
34	VENKATESH S	311821106036	YES	Venkatesh
35	SAHULHAMEED T		YES	
36	DHINESH K N		YES	Dinesh
37	KARTHIKEYAN S		YES	Karthi

Head Training

Format No.: TLP 20

Rev.No.: 01

Signature of HoD with date

(Dr. M.Sundar)

Rev.Date: 04.01.21

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

Department of ECE
II YEAR ECE SCI LAB ATTENDANCE SHEET

| S.NO	REG NO	NAME OF THE STUDENT	YEAR	10.08.2022	17.08.2022	24.08.2022	07.09.2022	21.09.2022	28.09.2023	05.10.2022	12.10.2022	19.10.2022	26.10.2022	02.11.2022	09.11.2022
1	311821106001	ABDUL BAASIT.A	II	Baasit	Baasit	Baasit	Baasit	Baasit	Baasit	Baasit	Baasit	Baasit	Baasit	Baasit	Baasit
2	311821106002	ABINAYA V	II	Abinaya	Abinaya	Abinaya	Abinaya	Abinaya	Abinaya	Abinaya	Abinaya	Abinaya	Abinaya	Abinaya	Abinaya
3	311821106003	ANISH KUMAR K	II	Anish	Anish	Anish	Anish	Anish	Anish	Anish	Anish	Anish	Anish	Anish	Anish
4	311821106004	ARIHARAN	II	Ariharan	Ariharan	Arihan	AB	Ariharan	Ariharan	Ariharan	AB	Ariharan	Ariharan	Ariharan	Ariharan
5	311821106005	ASMA FATHIMA F T	II	Asma	Asma	Asma	AB	AB	AB	AB	Asma	Asma	Asma	Asma	AB
6	311821106006	BHAVANI H	II	Bavani	Bavani	Bavani	Bavani	Bavani	Bavani	Bavani	Bavani	Bavani	Bavani	Bavani	Bavani
7	311821106007	CHITHRA S	II	Chithra	Chithra	Chithra	Chithra	Chithra	Chithra	Chithra	Chithra	Chithra	Chithra	Chithra	Chithra
8	311821106008	DHINESH C	II	C.Dinesh	C.Dinesh	C.Dinesh	C.Dinesh	C.Dinesh	C.Dinesh	C.Dinesh	C.Dinesh	C.Dinesh	C.Dinesh	C.Dinesh	C.Dinesh
9	311821106009	GAJENDIRAN R	II	Gaj	Gaj	Gaj	Gaj	Gaj	Gaj	Gaj	Gaj	Gaj	Gaj	Gaj	AB
10	311821106010	GOPI K	II	Gopi	Gopi	Gopi	Gopi	Gopi	Gopi	Gopi	Gopi	Gopi	Gopi	Gopi	Gopi
11	311821106011	HAARISTHAMEEM ANSARI	II	Affer	Affer	Affer	Affer	Affer	Affer	Affer	Affer	AB	AB	Affer	Affer
12	311821106012	HALITH UMAR R	II	Umar	Umar	Umar	Umar	Umar	Umar	Umar	Umar	Umar	Umar	Umar	Umar
13	311821106013	HUMAIRA NUSRATH	II	Humaira	Humaira	Humaira	Humaira	Humaira	Humaira	Humaira	Humaira	Humaira	Humaira	Humaira	Humaira
14	311821106014	JAYASUDHAN J	II												
15	311821106015	KISHORE D	II	DKim	DKim	DKim	DKim	DKim	DKim	DKim	DKim	DKim	DKim	DKim	DKim
16	311821106016	MAHESWARAN R	II	AB	Mahes	Mahes	Mahes	Mahes	Ab	Mahes	Mahes	Mahes	Mahes	Mahes	Mahes
17	311821106017	MAJITHUL HIKKUM	II	Hikku	Hikku	Hikku	Hikku	Hikku	Hikku	Hikku	Hikku	Hikku	Hikku	Hikku	Hikku
18	311821106018	MOHAMED FARAJKHAN R	II	faraj	faraj	AB	faraj	faraj	faraj	AB	faraj	faraj	AB	faraj	faraj
19	311821106019	MOHAMED YAHYA N I	II	Ab	Ab	Ab	Yahya	Yahya	Yahya	Yahya	Yahya	AB	Yahya	Yahya	Yahya
20	311821106020	MOHAMMED AATHIF M	II	Mathif	Mathif	Mathif	Mathif	Mathif	Mathif	Mathif	Mathif	Mathif	Mathif	Mathif	Mathif
21	311821106021	MOHAMMED IBRAHIM	II	Ibro	Ibro	Ibro	Ibro	Ibro	Ibro	AB	Ibro	Ibro	Ibro	AB	Ibro
22	311821106023	NANDHINI A	II	M.Jaan	AB	M.Jaan	M.Jaan	M.Jaan	M.Jaan	M.Jaan	M.Jaan	M.Jaan	M.Jaan	M.Jaan	M.Jaan
23	311821106024	NANDHINI K	II	K.Nan	K.Nan	K.Nan	K.Nan	K.Nan	K.Nan	K.Nan	K.Nan	K.Nan	K.Nan	K.Nan	K.Nan
24	311821106025	PAVITHRA S	II	AB	Pavithra	AB	Pavithra	Pavithra	Pavithra	Pavithra	Pavithra	Pavithra	Pavithra	Pavithra	Pavithra
25	311821106026	PUSHPA P	II	P.Pus	P.Pus	P.Pus	P.Pus	P.Pus	P.Pus	P.Pus	P.Pus	P.Pus	P.Pus	P.Pus	P.Pus
26	311821106027	SAFIA FARHEEN Z R	II	AB	Safi	Safi	Safi	AB	Safi	Safi	Safi	Safi	Safi	Safi	Safi
27	311821106028	SANJAY V	II	S	S	S	AB	S	S	S	S	AB	S	AB	S
28	311821106030	SIBY C	II	Siby	Siby	Siby	Siby	Siby	Siby	Siby	Siby	Siby	Siby	Siby	Siby

LIST OF EXPERIMENTS & SCHEDULE

Course Code:

Course Title: SCI LAB Programming Lab

Exp. No.	Title	Week No.
1	STUDY OF BASIC SCILAB COMMANDS	
2	MATRIX CONSTRUCTORS AND OPERATIONS	
3	MATRIX BITWISE, RELATIONAL & LOGICAL OPERATIONS	
4	CONTROL STRUCTURES (If-Else, If-elseif –else, Select)	
5	CONTROL STRUCTURES (for, while, break and continue)	
6	GRAPHICS - 2D PLOTS	
7	SCILAB – SIGNALS GENERATION AND OPERATIONS ON SIGNALS PROGRAM (FS generation and time shifting operation)	
8	SCILAB – I & V CALCULATION FOR SELFBIAS CIRCUIT PROGRAM	
9	SCILAB – ELECTRONICS APPLICATION PROGRAM (KCL)	
10	SCILAB – ELECTRONICS APPLICATION PROGRAM (Control System application)	
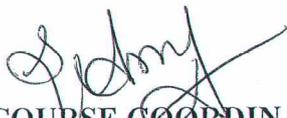
PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

COURSE COORDINATOR

HOD
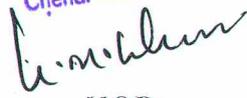
ûdemy

CERTIFICATE OF COMPLETION

SCILAB: The Open Source Alternative of MATLAB

Instructors Dr. Sourabh Sahu

Halith umar

Date Oct. 13, 2022

Length 4.5 total hours

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot IT Highway Egattur,
Chennai - 603103.

ûdemy

CERTIFICATE OF COMPLETION

SCILAB: The Open Source Alternative of MATLAB

Instructors **Dr. Sourabh Sahu**

Dineshkn

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Date **Dec. 13, 2022**

Length **4.5 total hours**

ûdemy

CERTIFICATE OF COMPLETION

SCILAB: The Open Source Alternative of MATLAB

Instructors   **Dr. Sourabh Sahu**

Safia Farheen Z.R

Date   **Dec. 14, 2022**

Length   **4.5 total hours**

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

ûdemy

CERTIFICATE OF COMPLETION

SCILAB: The Open Source Alternative of MATLAB

Instructors **Dr. Sourabh Sahu**

Dhinesh.C

Date Dec. 13, 2022

Length 4.5 total hours

ûdemy

CERTIFICATE OF COMPLETION

SCILAB: The Open Source Alternative of MATLAB

Instructors Dr. Sourabh Sahu

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.
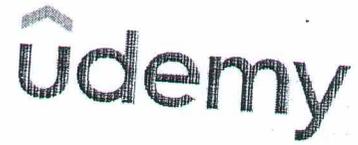
Sanjay

Date Dec. 13, 2022

Length 4.5 total hours

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

UAV/DRONE MODELLING

(Students)

ACADEMIC YEAR :2022-2023

09.08.2022

MSAJCE

From

Dr.M.Sivakumar
Head/ECE
Mohamed Sathak A.J College of Engineering
Chennai.

To

The Principal
Mohamed Sathak A.J College of Engineering
Chennai.

Respected Sir,

Sub – Permission for conducting ADD on Course – Reg.

With reference to the above cited subject, we have proposed to conduct ADD on courses for the students of ECE department in the Academic Year 2022-2023 (Odd Semester) under UAV/Drone Technology Centre. The selected courses are useful to the students for learning the emerging technical fields.

Kindly provide the permission for the same.

Year/Sem	Course Name	Duration
III / V	UAV/Drone Modelling	30 Hrs

Thanking You

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Yours Sincerely

Dr.M.Sivakumar
HOD/ECE

Place: Siruseri

Date: 09.08.2022

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

ISO 9001:2015
Certified by IRCS   QM 006

DEPARTMENT OF ECE

Date:10/8/2022

Ref:01/MSAJCE/ECE/ODD/2022-2023

CIRCULAR

We the department of Electronics and communication Engineering, planned to conduct the Add on/Value added course for the below mentioned students for this Academic Year 2022-2023. (Odd sem).

Year/Sem	Title	Duration	Course Coordinator
III ECE	UAV/Drone Modelling	30 Hrs	Mr.M.Asohk Kumar

Venue:UAV/Drone Lab (Room No: 114)

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.
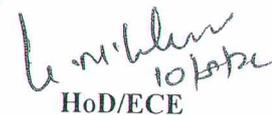
HoD/ECE

Copy To:

Department of ECE.

IQAC

Notice Board

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai

ELECTRONICS AND COMMUNICATION ENGINEERING

III YEAR (2022-2023)

UAV/ DRONE MODELLING

Sl.No	Register No.	Name of the Student
1	311820106001	ABINAYA
2	311820106002	ABITHA. B
3	311820106003	AFLAL AHMED
4	311820106004	AHAMED SYED SAMAR
5	311820106005	AMUDESHWARAN. S
6	311820106006	BASHARATHULLA
7	311820106007	CAROL PERSY. N
8	311820106008	JANANI. E
9	311820106009	JASEEM MOHAMED. P
10	311820106011	KISHORE. S
11	311820106013	MATHIVANAN. R
12	311820106014	MOHAMED MUKSHITH
13	311820106015	MUTHU AKMAL
14	311820106016	NIRMAL. K
15	311820106017	POOSATHISH KUMAR
16	311820106018	SAFRIN. S
17	311820106020	SATHISH KUMAR. V
18	311820106021	SHAHRUKH FAKRUDEEN. K
19	311820106022	SHAIK ABDULLAH
20	311820106023	SUBASH
21	311820106025	THANVEER SHERIFF. A
22	311820106026	VAMSI KRISHNA G.V
23	311820106301	BALA KRISHNAN.S
24	311820106302	FOUZIA JABEEN S P
25	311820106303	GIRISH .R
26	311820106304	HARIHARAN.S
27	311820106305	KAMALI.D
28	311820106306	MOHAMED NAYEEM B
29	311820106307	NARESH .M
30	311820106701	KAINRAJ
31	311820106702	KISHORE. S

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Syllabus

UAV SYSTEMS & APPLICATION SENSORS

OBJECTIVE: To enhance the student's knowledge in Advanced concepts of UAV/UAS systems.

UNIT I UAV/UAS -SYSTEMS (Theory)

What is UAV/UAS, UAV Integrated System, UAV Signals and controls, Ground Control Systems, UAV Launching Systems, Image Processing & GIS, Remote Sensing

UNIT II CONTROLS AND CALIBRATION (Theory + Practical)

Stealth Properties, Principal Stealth Technology, Increase Thrust Techniques, Controls & control Mixing, Motor Calibration, ESC Calibration, Signal Binding & Resetting

UNIT III UAV TESTINGS (Theory + Practical)

CG Balancing, Roll Balancing, Weight Checking, Propeller Balancing, Battery Maintenance and Checking, Gimbal Testing, Vibration Testing, Range Testing, Controls Testing & Trim

UNIT IV BASIC SENSORS (Theory + 3 Sensors Practical)

Flight Controllers, Sensor Boards, Relay - Controls – (Servo, Motor, SMD/Lights/RGB Sensor, Buzzer, Etc,..), Weather Monitoring - (Temperature, Humidity)

UNIT V UAV APPLICATION SENSORS (Theory + 4 Sensors Practical)

Inspection – (Ultra sonic Sensor, Flame Sensor, Smoke Sensor, Light Sensor, Hart Beat Sensor, Lesser Sensor), Stability-(Gyro Sensor, Obstacle, Touch sensor, Linear hall, GPS)

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

UAV DRONE MODELLING - TIMETABLE

Department of ECE

Name of the Faculty with designation: M.ASHOKKUMAR, AP/ECE

Period/Day	1 8.15-9.00 AM	2 9.00-9.45 AM	3 09.45-10.30 AM	10.30-10.45 AM	4 10.45-11.30 AM	5 11.30-12.15 PM	6 12.15-1.00 PM	1.00-1.30 PM	7 1.30-2.30 PM	8 2.30-3.30 PM
MON				TEA BREAK				LUNCH BREAK		
TUE										
WED										
THU									DRONE	
FRI										
SAT										

Sl. No	Branch/Year/Sem	Subject Code	Subject Name	No. of Hours
1	ECE/III/V	COE	UAV /DRONE MODELLING	2

*Kindly sign with date

Timetable Coordinator
(Name & Sign)

HoD
(Name & Sign)

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Format No.: TLP 08   Rev.No.: 01   Rev.Date: 04.01.21

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103
VAC - STUDENTS NAME LIST
Department of ECE

Academic Year: 2022-2023

Name of the Value Added Course : UAV/Drone Modelling				
Yr / Sem : III/V		Faculty In-charge :	Mr.M.Ashokkumar,AP/ECE	
Location : Room No.114 - Drone Lab		Duration :	30 Hrs	
Sl.No	Name of the Student	Register No.	Status of Qualifying	Sign of Student
1	ABINAYA K	311820106001	Yes	
2	ABITHA B	311820106002	Yes	
3	AFLAL AHAMED M	311820106003	Yes	
4	AHMAD SYED SEMAR	311820106004	Yes	
5	AMUDESHWARAN S	311820106005	Yes	
6	BASHARATHULLA A	311820106006	Yes	
7	CAROL PERSY N	311820106007	Yes	
8	JANANI E	311820106009	Yes	
9	JASEEM MOHAMED P	311820106010	Yes	
10	KISHORE S	311820106011	Yes	
11	MADHIVANAN R.	311820106013	Yes	
12	MOHAMED MUKSHITH N	311820106014	Yes	
13	MUTHU AKMAL M	311820106015	Yes	
14	NIRMAL K	311820106016	Yes	
15	POOSATHISHKUMAR M	311820106017	Yes	
16	SAFRIN S	311820106018	Yes	
17	SATHESH KUMAR V	311820106020	Yes	
18	SHAHRUKH FAKRUDEEN K	311820106021	Yes	
19	SHAIK ABDULLA A	311820106022	Yes	
20	SUBHASH B	311820106023	Yes	
21	THANVEER SHERIFF	311820106025	Yes	
22	VAMSI KRISHNA K	311820106026	Yes	
23	BALA KRISHNAN.S	311820106301	Yes	
24	FOUZIA JABEEN S P	311820106302	Yes	
25	GIRISH .R	311820106303	Yes	
26	HARIHARAN.S	311820106304	Yes	
27	KAMALI.D	311820106305	Yes	
28	MOHAMED NAYEEM B	311820106306	Yes	
29	NARESHKUMAR .M	311820106307	Yes	
30	KAVINRAJ S	311820106701	Yes	
31	KISHORE S	311820106702	Yes	

Head-Training

[Dr.m.sivakumar]
Signature of HoD with date

Format No.: TLP 20

Rev.No.: 01

Rev.Date: 04.01.21

ATTENDANCE

Roll No.	Register No.	Name	Month: August/Sept/Oct												Oct/Nov		
			Date 18	01	22	29	6	6	13	13	20	20	27		27	3	
			Period 7,8	7,8	7,8	7,8	7,8	7	8	7	8	7	8	7		8	7	8
1	311520101001	ARINAYA K	a	/	/	/		/	/	/	/	/	/		/	/
2	02	ARITHA B	/	/	/	a	/	a	a	/	/	a	/	/	/	/	/
3	03	AFLAL AHAMED M	a	a	/	/	a	/	/	/	/	/	/		/	/	/
4	04	AHMED SYED SINAB	/	a	/		/	/	/	/	/	/	/		/	/	/
5	05	AMUDESHWARAN S	/	/	/	/	/	/	/	/	/	/	/		/	/	/
6	06	BASHARATHULLA A	/	/	/	/	/	/	/	/	/	/	/		/	/	/
7	07	CAROL PERSY N	a	/	/	/	/	/	/	/	/	/	/		/	/	/
8	09	JANANI F	/	/	/	/	/	/	/	/	/	/	/		a	/	/
9	10	JASSIM MUHAMED P	a	a	a	/	a	a	/	/	a	a	a	/	/	/	/
10	11	KISHORE S	/	a	a	/	/	/	/	/	/	/	/		/	/	/
11	13	MADHIVANAN R	/	/	/	/	/	/	/	/	/	/	/		/	/	/
12	14	MOHAMED MUKSHITH N	/	/	a	/	/	/	/	/	/	/	/		/	/	/
13	15	MUTHU AKMAL M	a	a	a	/	a	a	a	/	/	a	a	/	/	/	/
14	16	NIRMAL K	/	a	/	/	a	/	/	a	a	/	/		/	/	/
15	17	PROSATISH KUMAR M	/	a	/	/	/	/	/	/	a	/	/		/	/	/
16	18	SAFRIN S	/	/	/	/	/	a	a	/	/	/	/		/	/	/
17	20	SATHESH KUMAR V	/	a	/	/	/	/	/	/	/	/	/		/	/	/
18	21	SHAHRUKH LAKRUDEEN K	/	a	/	/	/	a	a	a	/	/	a	a	/	/	/
19	22	SHAIK ABDULLA A	a	/	/	/	a	a	a	/	/	a	a		/	/	/
20	23	SURHASH B	a	a	/	a	/	/	/	a	a	/	/		/	/	/
21	25	THANVEER SHERIFF	a	a	/	/	a	/	/	/	/	/	/	/	/	/	/
22	26	VAMSI KRISHNA K	a	a	a	/	/	/	/	/	/	/	/		/	/	/
23	302	FUIZIA TABEEN SP	a	a	/	/	/	a	/	/	/	/	/		/	/	/
24	303	GIRISH R	/	/	/	a	/	/	/	/	/	/	/		/	/	/
25	304	HARIHARAN S	a	a	a	/	/	/	a	a	/	/	/		/	/	/
26	305	KAMALI D	/	/	a	a	/	/	a	a	/	/	/		/	/	/
27	306	MOHAMED NAYEEM B	a	a	/	/	/	/	/	/	/	/	/		/	/	/
28	307	NARESH KUMAR M	a	a	a	/	/	/	/	/	/	/	/		/	/	/
29	301	BALA KRISHNAN S	a	a	a	/	/	/	/	/	/	/	/		/	/	/
		No. of Absentees	14	17	8	3	8	5	4	4	3						
		Initial of the Faculty															

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

VALUE ADDED COURSE - COURSE CONTENT

Department of ECE

Class : III Year /V Sem   Academic Year: 2022-2023

Name of the Value Added Course	Drone Modelling	Name of the handling Faculty	Mr.M.Ashokkumar		
Course Objective					
To Enhance the students knowledge in advance concepts of UAV/UAS systems					
Course Outcome					
Enhancing students' knowledge in advanced UAV/UAS system concepts, aiming to equip them with comprehensive skills and understanding in this specialized field.					
Lesson Plan for VAC					

Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	What is UAV/UAS, UAV Integrated System	T1,R1	1	PPT
2	UAV Signals and controls	T1,R1	1	PPT
3	Ground Control Systems	T1,R1	1	PPT
4	UAV Launching Systems	T1,R1	1	PPT
5	Image Processing & GIS, Remote Sensing	T1,R1	1	PPT
6	Stealth Properties, Principal Stealth Technology	T2,R3	1	PPT/Hands -On
7	Increase Thrust Techniques	T2,R3	1	PPT/Hands -On
8	Controls & control Mixing	T2,R3	1	PPT/Hands -On
9	Motor Calibration	T2,R3	1	PPT/Hands -On
10	ESC Calibration	T2,R3	1	PPT/Hands -On
11	Signal Binding & Resetting	T2,R3	1	PPT/Hands -On
12	CG Balancing, Roll Balancing	R1,R2	1	PPT/Hands -On
13	Weight Checking	R1,R2	1	PPT/Hands -On
14	Propeller Balancing	R1,R2	1	PPT/Hands -On
15	Battery Maintenance and Checking	R1,R2	1	PPT/Hands -On
16	Gimbal Testing, Vibration Testing	R1,R2	1	PPT/Hands -On
17	Range Testing, Controls Testing & Trim	R1,R2	1	PPT/Hands -On
18	Flight Controllers	R2,R3	1	PPT/Hands -On
19	Sensor Boards	R2,R3	1	PPT/Hands -On
20	Relay - Controls – (Servo, Motor, SMD/Lights/RGB Sensor, Buzzer)	R2,R3	1	PPT/Hands -On
21	Weather Monitoring - (Temperature, Humidity)	R2,R3	1	PPT/Hands -On

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

UAV/DRONE MODELLING

STUDENT CERTIFICATION DETAILS

S.NO	COURSE NAME	YEAR	NO OF STUDENTS CERTIFIED
1	DRONE MODELLING	III	31

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year 1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. __**ABINAYA K III ECE**__ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Dr. I. Manju
Head Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

ISO 9001:2015 Certified by IRQS · NABCB QM 006 · CII AICTE-CII SURVEY SILVER RANKING · Performer · INSTITUTION'S INNOVATION COUNCIL

Certificate of Completion

This is to certify that Mr. / Ms. __**ABITHA B III ECE**__ student of Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training program on **"UAV/Drone Modelling"** from 10th August 2022 to 29th October 2022. Conducted by UAV/Drone Technology Center, Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai, IT Highway
Chennai

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. __AFLAL AHAMED M III ECE__ student of Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training program on **"UAV/Drone Modelling"** from 10th August 2022 to 29th October 2022. Conducted by UAV/Drone Technology Center, Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Post, IT Highway Egattur,
Chennai 603103.

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Certificate of Completion

This is to certify that Mr. / Ms. **AHMAD SYED SEMAR III ECE** student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot IT Highway Egattur,
Chennai 603 103.

Dr. I. Manju
Head Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

Certificate of Completion

This is to certify that Mr. / Ms. **AMUDESHWARAN S   III ECE** student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

ISO 9001:2015 Certified by IRQS | NABCB QM 006 | CII AICTE CII SURVEY SILVER RANKING | Performer | INSTITUTIONS INNOVATION COUNCIL

Certificate of Completion

This is to certify that Mr. / Ms. **BASHARATHULLA A III ECE** student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

I. Manju

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Head, Egattur
Chenai - 603103.

Mr.M.Ashokkumar
Course Co - ordinator

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. __CAROL PERSY N   III ECE__ student of Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training program on **"UAV/Drone Modelling"** from 10th August 2022 to 29th October 2022. Conducted by UAV/Drone Technology Center, Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
A.J. College of Engineering
Mohamed Sathak Trust (OMR)
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year 1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. **JANANI E III ECE** student of Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training program on **"UAV/Drone Modelling"** from 10th August 2022 to 29th October 2022. Conducted by UAV/Drone Technology Center, Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
- 1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. **JASEEM MOHAMED P III ECE** student of Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training program on **"UAV/Drone Modelling"** from 10th August 2022 to 29th October 2022. Conducted by UAV/Drone Technology Center, Department of Electronics and Communication Engineering.

Mr. M. Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot Egattur,
Chennai - 603103

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

Golden Jubilee Year
1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. **KISHORE S   III ECE** student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

I. Manju

Mr.M.Ashokkumar
Course Co - ordinator

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
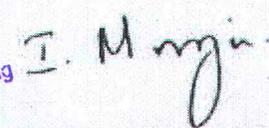## A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year 1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. **MADHIVANAN R   III ECE** student of Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training program on **"UAV/Drone Modelling"** from 10th August 2022 to 29th October 2022. Conducted by UAV/Drone Technology Center, Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot IT Highway Egattur,
603 103.

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year 1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. **MOHAMED MUKSHITH N III ECE** student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Maxy Gandhi Salai (OMR)
Sipcot - IT Highway, Egattur,
Chennai - 603103.

Dr. I. Manju
Head Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. **MUTHU AKMAL M III ECE** student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
JT Highway Egattur,
Chennai

Mr.M.Ashokkumar
Course Co - ordinator

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

ISO 9001:2015 Certified by IRQS QM 006 NABCB CII AICTE CII SURVEY SILVER RANKING Performer INSTITUTIONS INNOVATION COUNCIL

Certificate of Completion

This is to certify that Mr. / Ms. _____ **NIRMAL K   III ECE** _____ student of Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training program on **"UAV/Drone Modelling"** from 10th August 2022 to 29th October 2022. Conducted by UAV/Drone Technology Center, Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sholinganallur Highway Egattur,
Chennai - 603103.

Dr. I. Manju
Head Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. **POOSATHISHKUMAR M III ECE** student of Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training program on **"UAV/Drone Modelling"** from 10th August 2022 to 29th October 2022. Conducted by UAV/Drone Technology Center, Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot IT Highway Egattur,
Chennai - 603103.

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. **SAFRIN S III ECE** student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

PRINCIPAL
Mohamed Sathak A.J. College of Engineering

Mr.M.Ashokkumar
Course Co - ordinator

Dr. I. Manju
Head – Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Certificate of Completion

This is to certify that Mr. / Ms. **SATHESH KUMAR V III ECE** student of Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training program on **"UAV/Drone Modelling"** from 10th August 2022 to 29th October 2022. Conducted by UAV/Drone Technology Center, Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, ... Gandhi Salai (OMR)
Sipcot IT Highway
Chennai - 603103.

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

ISO 9001:2015 Certified by IRQS | NABCB QM 006 | CII AICTE-CII SURVEY SILVER RANKING | Performer | INSTITUTIONS INNOVATION COUNCIL

Certificate of Completion

This is to certify that Mr. / Ms. **SHAHRUKH FAKRUDEEN K III ECE** student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Mr.M.Ashokkumar
Course Co - ordinator

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. __**SHAIK ABDULLA A III ECE**__ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Mr.M.Ashokkumar
Course Co - ordinator

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

ISO 9001:2015
Certified by IRQS QM 006

NABCB

CII
AICTE-CII SURVEY
SILVER RANKING

Performer

INSTITUTION'S
INNOVATION COUNCIL

Certificate of Completion

This is to certify that Mr. / Ms. _____ **SUBHASH B   III ECE** _____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

Mr.M.Ashokkumar
Course Co - ordinator

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. ___THANVEER SHERIFF   III ECE___ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Mr.M.Ashokkumar
Course Co - ordinator

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Certificate of Completion

This is to certify that Mr. / Ms. ___VAMSI KRISHNA K III ECE___ student of Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training program on **"UAV/Drone Modelling"** from 10th August 2022 to 29th October 2022. Conducted by UAV/Drone Technology Center, Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. **BALA KRISHNAN S III ECE** student of Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training program on **"UAV/Drone Modelling"** from 10th August 2022 to 29th October 2022. Conducted by UAV/Drone Technology Center, Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No 34, Rajiv Gandhi Salai (OMR)
Highway Egattur,
Chennai

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

Certificate of Completion

This is to certify that Mr. / Ms. _____ **FOUZIA JABEEN S P III ECE** _____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No 34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

Mr.M.Ashokkumar
Course Co - ordinator

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. ___**GIRISH   R   III ECE**___ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No 34 Rajiv Gandhi Salai (OMR)
Sipcot I Highway Egattur,
Chennai 603103.
Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Certificate of Completion

This is to certify that Mr. / Ms. **HARIHARAN S   III ECE** student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No 3A Rajiv Gandhi Salai (OMR)
Siruseri IT Highway
Chennai - 603103.

Dr. I. Manju
Head Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Certificate of Completion

This is to certify that Mr. / Ms. **KAMALI D III ECE** student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai 103

Dr. I. Manju
Head Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. __MOHAMED NAYEEM B   III ECE__ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No 34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

Mr.M.Ashokkumar
Course Co - ordinator

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. **NARESHKUMAR M   III ECE** student of

Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training program on **"UAV/Drone Modelling"** from 10th August 2022 to 29th October 2022. Conducted by UAV/Drone Technology Center, Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No 34 Rajiv Gandhi Salai (OMR)
Chennai - 603103

Dr. I. Manju
Head Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

Certificate of Completion

This is to certify that Mr. / Ms. **KISHORE R III ECE** student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"UAV/Drone Modelling"** from 10th August

2022 to 29th October 2022. Conducted by UAV/Drone Technology Center,

Department of Electronics and Communication Engineering.

PRINCIPAL

Mr.M.Ashokkumar Mohamed Sathak A.J. College of Engineering

Course Co - ordinator

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Certificate of Completion

This is to certify that Mr. / Ms. _____ **KAVINRAJ   III ECE** _____ student of Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training program on **"UAV/Drone Modelling"** from 10th August 2022 to 29th October 2022. Conducted by UAV/Drone Technology Center, Department of Electronics and Communication Engineering.

Mr.M.Ashokkumar
Course Co - ordinator

PRINCIPAL
Mohamed Sathak College of Engineering
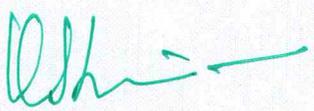
Dr. I. Manju
Head Technology Centre & Industry Relations
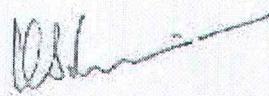
Dr. K.S. Srinivasan
Principal

IOT USING ARDUINO
ACADEMIC YEAR
2022-2023

APPLICATION FOR CONDUCTING VALUE ADDED COURSES

1. Name of the Department: B.E ELECTRONICS &COMMUNICATION ENGINEERING (REGULATIONS 2017)

2. UG programme   :   B.E

3. **Details of the Value Added Courses:**

a. Name of the Value Added Courses: IOT USING ARDUINO(Course Code IVA067)

b. Type of Value Added Courses   :   (Lab integrated theory)

c. Short Description   :   Enclosure 1 enclosed

d. Syllabus including Reference   :   Enclosure 2 enclosed - YES

4. **Target audience:**

Semester (indicate if more than one)   :   VIIth Semester only

   Others

5. **Details of Faculty handling the course:**

a. Name of the Faculty handling the Value Added Course   :   Mr.S.Piriyadharshini

b. Details including designation and expertise   :   Enclosure 3 enclosed - YES

c. Contact details

        Email ID   :   ece.priyadharshini@msajce-edu.in

        Phone No   :   9489019459

6. **Tentative Time Table** including dates of internal assessments   :   Enclosure 4 enclosed - YES

7. Number of students opting for the course   :   22

8. Department Consultative Committee - Minutes   :   Enclosure 5 enclosed - YES

9. Name and Designation of the Coordinator   Mr.M.Kamarajan,
Assistant Professor.
Department of ECE
Mohamed Sathak A J College of Engg.

Head of the Department
(With date & seal)
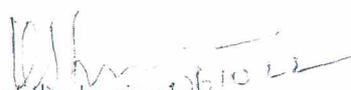
Head of the Institution
(With date & seal)

Director, Academic Courses

Additional Controller of Examinations

B.E ELECTRONICS AND COMMUNICATION ENGINEERING (REGULATIONS 2017)

VALUE ADDED COURSE

DEPARTMENT CONSULTATIVE COMMITTEE – MINUTES OF THE MEETING

Date: 07/09/22

As per the Regulations 2017, a department consultative committee is constituted to offer value added course for the 7th semester, B.EElectronics and communicationengineering students pursuing their studies at Mohamed Sathak A J College of Engineering (MSAJCE), Siruseri, Chennai. The following members were present for the meeting held on 06/08/2022 at Department of B.E Electronics and Communication Engineering, MSAJCE.

S.No.	Name & Designation	Member of Bodies	Signature
1.	Dr.I.Manju, Head of the Technology Center & Professor, MSAJCE	Monitor the progress of the course	
2.	Dr .M.Sivakumar, Associate Professor/ECE,MSAJCE	Senior Faculty Member	
3.	Mr.M.Kamarajan /ECE,MSAJCE	Coordinator	
4.	Mr.S.Piriyadharshini/ECE,MASJCE	Faculty handling the course	
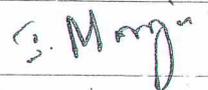
The consultative committee has decided to offer IOT USING ARDUINO for the students since it is essential for them to acquire knowledge and work in core Industry. The committee recommends Mrs.S.Piriyadharshini, Assistant Professor handle the course and train the students in IOT USING ARDUINO. The curriculum & syllabus, internal assessment pattern and awarding of grades are discussed and passed on the meeting for approval. The consultative committee constituted for value added course has recommended to conduct the course as lab integrated theory and approved the same.
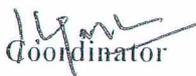
Coordinator

Committee Chairperson
(Dr. M. Sivakumar)
(Senior Faculty Member)

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

HoD/ ECE
(Dr. M. Sivakumar)

From

> The Head of Department
>
> Department of ECE
>
> Mohamed Sathak A.J College of Engineering
>
> Chennai.

To

> The Principal
>
> Mohamed Sathak A.J College of Engineering
>
> Chennai.

Respected Sir,

> Sub – Value added course registration – Reg.

We have selected the **IVA067 IOT Using Arduino** as a value added course for this Odd semester for IV Year students of the (AY 2022–2023). So I kindly request you to approve the same to update in the Anna University web portal.

<div align="center">Thanking You</div>

Yours Sincerely

Mr.M.Kamarajan

Coordinator

(Dr.M.Sivakumar)

HOD/ECE
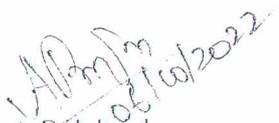
Dr.A.Balakrishnan

Academic/Head

Dr. I. Manju

Technology Centre Head

Dr. K.S. Srinivasan

Principal

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

ISO 5001:2015
Certified by IRQS   QM 006

DEPARTMENT OF ECE

Date:10/8/2022

Ref:01/MSAJCE/ECE/ODD/2022-2023

CIRCULAR

We the department of Electronics and communication Engineering, planned to conduct the Add on/Value added course for the below mentioned students for this Academic Year 2022-2023. (Odd sem).

Year/Sem	Title	Duration	Course Coordinator
IV ECE	IoT Using Arduino	45 Hrs	Ms.S.Piriyadharshini AP/ECE

Venue: UAV/Drone Lab (Room No: 114)

HoD/ECE

Copy To:

Department of ECE.

IQAC

Notice Board

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Value Added Course

VII Semester 2022-2023 (ODD Semester)

Course Curriculum

Sl.NO	Course Code	Course Title	Category	Contact Periods	L	T	P	C
1.	IVAO67	IOT using ARDUINO	Value Added	10 days	1	0	0	2
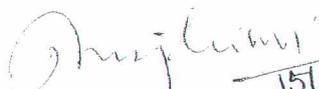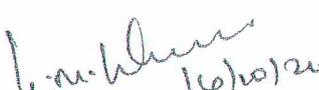
COURSE CORDINATOR 15/9/22

HOD/ECE

(Dr. M. Sivakumar)

Semester -6	Value Added Course on **IOT USING ARDUINO**	L	T	P	C
		1	0	2	2

Objectives:

* To expose student and gain knowledge about Arduino technology with IOT
* To Program and construct applications using Arduino using a number of different sensors and IOT

Unit – I Introduction to Arduino

Embedded processing portfolio, Architecture and hardware organization of Arduino, Configuring GPIO and Clock systems, Real time applications using GPIO configuration, LCD interfacing, Technical explanation ADC, Configuring ADC, Real time applications using Sensors

Unit – II Interfacing with Zigbee

Bluetooth Interfacing, Android mobile based device control ,GSM interfacing and send SMS, Real time Application Development with GSM ,Zigbee Interfacing, Data transmission using zigbee, Real time applications interfacing with sensors and Zigbee

Unit – III Real Time applications

DC Motor Interfacing, H-bridge concept and design and ultrasonic interfacing, Clockwise and anticlockwise control, Real time applications interfacing with robotic vehicle model, Real time applications interfacing with sensors and Robot

Unit – IV Li-Fi with Ardino

Introduction, Li-Fi based Data communication, Interfacing Li-Fi with Arduino, Application Development with Li-Fi.

Unit – V IOT –Configuration & Integration

Introduction to IoT & Scope of IoT, Web page creation, Data transmission from sensors, Configuration webpage ,Sensor data monitoring , Wireless Interfacing, Android mobile based device control, GSM interfacing and send SMS, Real time Application Development with GSM, Zigbee Interfacing Data transmission using zigbee, Real time applications interfacing with robotic vehicle.

Outcomes:

The students will be outfitted with hands on knowledge in IOT using ARDUINO. .

Upon completion of the program, the students will be able to

C01	Understand features of the Arduino
C02	Application development-Integrate With IOT
C03	Study and execute real time applications
C04	Application development -Li-Fi with Ardino
C05	Execute coding to gather and process data on the Arduino via the cloud.

Total Hours: 45

DEPARTMENT OF B.E ELECTRONICS AND COMMUNICATION ENGINEERING
(REGULATIONS 2017)

VALUE ADDED COURSE

IOT USING ARDUNIO

TIMETABLE

The value-added course can be conducted in theregular academic days covering 45 hours to earn 2 credits by the students.

Week	Hrs Wednesday (1.45 to 3.45) and Thursday (1.45 to 3.45)	Topic	Assessment
Week 1	5 Hrs	Unit I	-
Week 2	5 Hrs	Unit I	-
Week 3	5 Hrs	Unit II	
Week 4	5 Hrs	Unit II	-
Week 5	5 Hrs	Unit III	Assessment Test – I
Week 6	5 Hrs	Unit III	-
Week 7	5 Hrs	Unit IV	-
Week 8	5 Hrs	Unit IV	Assessment Test – II
Week 9	5 Hrs	Unit V	-
Week 10	3Hrs	Unit V	Model Exam
Week 10	2 Hrs	Project	Project Review

ASSESSMENT I& II -PATTERN

Test Duration: 1 Hour

QUESTION PAPER PATTERN:

Part A (20*1 = 20 Marks) Objective Type Questions

Part B (5*8 = 40 Marks) Descriptive Type Questions

Part C (2*20 = 40 Marks) Design, Drawing & Programming

AWARD OF GRADES:

Letter Grade	Grade Points	Marks Range
O	10	91-100
A+	9	81-90
A	8	71-80
B+	7	61-70
B	6	50-60

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

IoT Using ARDUINO

IV YEAR ECE- NAME LIST

S.NO	REGISTER NO	NAME OF THE STUDENTS	SIGNATURE
1	311819106001	AHAMED ALI. H	
2	311819106002	AKSHAYA.K	
3	311819106003	ASHWINI. A	
4	311819106004	ASSIFA.A	
5	311819106005	AVULA SUNEEL	
6	311819106006	BHEULAH .G.L	
7	311819106007	CHEMUDUGUNTA AJAY KUMAR	
8	311819106008	HASHIM ASLAM	
9	311819106009	JAHANGEER NADIR KHAN. P	
10	311819106010	MOHAMED ABDULLAH M	
11	311819106011	MOHAMED SALAUDEEN. R	
12	311819106012	MOHAMMED ASIF. A	
13	311819106013	MOHAMMED TAHEER	
14	311819106014	MOHSIN KHAN. M	
15	311819106015	PATTAPU PRATHYUSHA	
16	311819106016	POTU GANGA MANOJ KUMAR	
17	311819106017	RESMA .G	
18	311819106018	RIZWAN AHAMED. M	
19	311819106022	SYED AAKHIB MOHAMED I	
20	311819106301	S.NAVINASH	
21	311819106302	S.A.SAHAZATHSUFIYAN	
22	311819106303	S.SALMAN	

Faculty Incharge 14/10/22

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai 603103.

HOD

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

TIMETABLE

Academic year	2022-2023	Department	ECE
Semester	VII	Lab Name	VAC-IoT Using Arduino
Lab In-charge	Mrs.S.PIRIYADHARSHINI AP/ECE	Lab Assistant	
Location of the lab	Embedded and IoT Lab		

Period /Day	1 8.00-8.45 AM	2 8.45-09.30 AM	3 09.30-10.15 AM	10.15-10.30 AM	4 10.30-11.15 AM	5 11.15-12.00 PM	6 12.00-12.45 PM	12.45-1.30 PM	7 1.30-2.30 PM	8 2.30-3.30 PM
MON				T E A B R E A K				L U N C H B R E A K		
TUE									VAC(B)	
WED									VAC(A)	
THU									VAC	
FRI										
SAT										

THEORY& LABORATORY DETAILS:

S.No	Subject Code	Name of the Subject	Name of the Faculty	Dept	No. of Hours per Week
1	IVA067	VAC-IoT Using Arduino	Mrs.S.PIRIYADHARSHINI AP/ECE	ECE	6
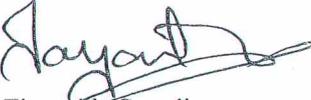
Timetable Coordinator
(Name & Sign)
(JAYANTH I.E)
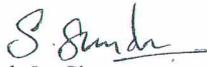
Lab In-Charge
(Name & Sign)
[S SonaDevi]

HoD
(Name & Sign)
(Dr.M.Swornn)

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

VALUE ADDED COURSE - COURSE CONTENT

Department of ECE

Class : IV ECE

Academic Year: 2022 TO 2023

Name of the Value Added Course	IVA067- IoT using Arduino	Name of the handling Faculty	S Piriyadharshini

Course Objective

1) To expose student and gain knowledge about Arduino Technology wit IOT

2) To program and construct applications using Arduino using a number of different sensors and IOT

Course Outcome

CO1	Understand features of Arduino Platform
CO2	Application Development - Integerate with Zigbee
CO3	Study and execute real time applications
CO4	Application Development - LiFi with Arduino
CO5	Execute coding to gether and process dataon the Ardunio via the cloud

Lesson Plan for VAC

Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
	UNIT 1 - Introduction to Arduino			
1	Embedded processing portfolio	T /R	1	PPT
2	Architecture and hardware organization of Arduino	T /R	1	PPT
3	Configuring GPIO and Clock Systems	T /R	1	PPT
4	Real Time Applications using GPIO configuration	T /R	1	PPT
5	LCD Interfacing	T /R	1	PPT
6	Technical explanation ADC	T /R	1	PPT
7	Configuring ADC	T /R	1	PPT
8	Real time applications using sensors	T /R	1	PPT
	UNIT II - Interfacing with Zigbee			
9	Bluetooth Interfacing	T /R	1	PPT
12	Android mobile based device control	T /R	1	PPT
13	GSM Interfacing and send SMS	T /R	1	PPT
14	Real time Application Development with GSM	T /R	1	PPT
15	Zigbee Interfacing	T /R	1	PPT
16	Data transmission using zigbee	T /R	1	PPT
17	Real time application interfacing with sensors and Zigbee	T /R	2	PPT
18				
19	**UNIT III - Real Time Applications**			
20	DC Motor Interfacing	T /R	2	PPT/TOOL
21	H Bridge Concept and design and ultrasonic interfacing	T /R	1	PPT/TOOL
22	Clockwise and Anticlockwise control	T /R	1	PPT/TOOL
23	Real time Application interfacing with Robotic vehicle model	T /R	1	PPT/TOOL
24	Real time applications interfacing with sensors and Robot	T /R	1	PPT/TOOL

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
Rajiv Gandhi Salai
I Highway, Egattur,
631 603103.

No	Topic			
26	**UNIT IV - Li-Fi with Arduino**			
27	Introduction	T /R	2	PPT
28	Li-Fi based data communication	T /R	2	PPT
29	Interfacing Li Fi with Arduino	T /R	2	PPT
30	Application development with LiFi	T /R	2	PPT
31				
32	**UNIT V - IOT- Configuration & Integration**			
33	Introduction to IOT and Scope of IOT	T /R	2	PPT
34	Webpage Creation	T /R	1	PPT
35	Data Transmission from Sensors	T /R	1	PPT
36	Configuration Webpage,Sensor data monitoring	T /R	1	PPT
37	Wireless Interfacing,Android mobile based device control	T /R	1	PPT
38	GSM Interfacing and send SMS	T /R	1	PPT
39	Real time application Development with GSM	T /R	1	PPT
40	Zigbee Interfacing data transmission using Zigbee	T /R	1	PPT
41	Real time applications interfacing with Robotic vehicle	T /R	2	PPT
42	Assesment 1		2	PPT
43	Project Review		2	PPT

Quiz / Mini Projects / Model Develpoed if any
Mini projects

Text / Reference Books	
1	Building Internet of Things with the Arduino by Charalampos Doukas (Author)Createspace Independent Pub (19 March 2012)

Website / URL References	
1	https://create.arduino.cc/projecthub/projects/tags/iot
2	https://iotdesignpro.com/iot-arduino-projects
3	https://www.tinkercad.com/

Sign of Course Coordinator 10/8/22

Sign of HoD with date
(Dr. M.Sivakumar)

I. Manju
Head-TC
[Dr. I. Manju]

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot IT Highway Egattur,
Chennai - 603103.

IoT Using ARDUINO

IV YEAR ECE- ASSESMENT 1 MARKS

S.NO	REGISTER NO	NAME OF THE STUDENTS	AASESMENT 1 (Marks:50)
1	311819106001	AHAMED ALI. H	50
2	311819106002	AKSHAYA.K	46.
3	311819106003	ASHWINI. A	50
4	311819106004	ASSIFA.A	48
5	311819106005	AVULA SUNEEL	50.
6	311819106006	BHEULAH .G.L	44.
7	311819106007	CHEMUDUGUNTA AJAY KUMAR	48
8	311819106008	HASHIM ASLAM	48
9	311819106009	JAHANGEER NADIR KHAN. P	44
10	311819106010	MOHAMED ABDULLAH M	46
11	311819106011	MOHAMED SALAUDEEN. R	48
12	311819106012	MOHAMMED ASIF. A	46
13	311819106013	MOHAMMED TAHEER	AB
14	311819106014	MOHSIN KHAN. M	16
15	311819106015	PATTAPU PRATHYUSHA	46.
16	311819106016	POTU GANGA MANOJ KUMAR	46
17	311819106017	RESMA .G	48
18	311819106018	RIZWAN AHAMED. M	48
19	311819106022	SYED AAKHIB MOHAMED I	AB.
20	311819106301	S.NAVINASH	48
21	311819106302	S.A.SAHAZATHSUFIYAN	AB.
22	311819106303	S.SALMAN	50.

Faculty Incharge 13/10/22

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
jiv Gandhi Salai (...3)
...ighway (...attur,

HOD 14/10/22
(Dr. M. Sivakeni).

IoT Using ARDUINO

IV YEAR ECE

S.NO	REGISTER NO	NAME OF THE STUDENTS	ASSIGNMENT 1
1	311819106001	AHAMED ALI. H	9
2	311819106002	AKSHAYA.K	9
3	311819106003	ASHWINI. A	9
4	311819106004	ASSIFA.A	8
5	311819106005	AVULA SUNEEL	7
6	311819106006	BHEULAH .G.L	10
7	311819106007	CHEMUDUGUNTA AJAY KUMAR	AB
8	311819106008	HASHIM ASLAM	9
9	311819106009	JAHANGEER NADIR KHAN. P	9
10	311819106010	MOHAMED ABDULLAH M	8
11	311819106011	MOHAMED SALAUDEEN. R	
12	311819106012	MOHAMMED ASIF. A	7
13	311819106013	MOHAMMED TAHEER	AB
14	311819106014	MOHSIN KHAN. M	9
15	311819106015	PATTAPU PRATHYUSHA	9
16	311819106016	POTU GANGA MANOJ KUMAR	8
17	311819106017	RESMA .G	10
18	311819106018	RIZWAN AHAMED. M	9
19	311819106022	SYED AAKHIB MOHAMED I	9
20	311819106301	S.NAVINASH	8
21	311819106302	S.A.SAHAZATHSUFIYAN	AB
22	311819106303	S.SALMAN	AB

Faculty Incharge
28/9/22

PRINCIPAL
Mohamed Sathak A.J. College of Engineering

HOD 14/10/22
(Dr M.Sivakumar).

MINI PROJECT NAME LIST

Batch-1 → plant communicator
1. Assifa . A
2. Akshaya . K
3. Pattapu parathyusha .

Batch-2 → Rainwater detection using IOT
1. Bheulah . G . L
2. Rebhma . G
3. Ashwini . A .

Batch-3 → Antisleep alarm function for drivers .
1. Ahamed Ali . H .
2. Rizwan ahamed . M .
3. Abdulla .
4. Salaudeen .

Batch-4 → ESP32 door status monitor with telegram notification
1. Avula Suheel .
2. Manoj kumar .
3. Hasim Asdam .
4. Ajay kumar .

Batch-5
1. Asif
2. Sufiyan
3. Thaheer
4. Akib .

Mohamed Sathak A J College of Engineering

WEB PORTAL - VAC

Academic year 2022-2023   Form 3 : Webportal Entry Sheet.

IV YEAR - ECE

S. No	Reg No	Name of the Students	ATT (20)	ATT (25)	MARK (100)	MARK (100)
1	311819106001	AHAMED ALI. H	18	25	100	97
2	311819106002	AKSHAYA.K	20	25	92	100
3	311819106003	ASHWINI. A	19	24	100	96
4	311819106004	ASSIFA.A	20	25	96	100
5	311819106005	AVULA SUNEEL	20	25	100	100
6	311819106006	BHEULAH .G.L .	20	25	88	100
7	311819106007	CHEMUDUGUNTA AJAY KUMAR	18	25	96	96
8	311819106008	HASHIM ASLAM	20	25	96	97
9	311819106009	JAHANGEER NADIR KHAN. P	20	25	88	97
10	311819106010	MOHAMED ABDULLAH M	19	24	92	96
11	311819106011	MOHAMED SALAUDEEN. R	19	24	96	96
12	311819106012	MOHAMMED ASIF. A	20	25	92	96
13	311819106013	MOHAMMED TAHEER	18	25	80	95
14	311819106014	MOHSIN KHAN. M	19	24	85	95
15	311819106015	PATTAPU PRATHYUSHA	20	25	92	100
16	311819106016	POTU GANGA MANOJ KUMAR	20	25	92	100
17	311819106017	RESMA .G	20	25	96	98
18	311819106018	RIZWAN AHAMED. M	19	24	96	96
19	311819106022	SYED AAKHIB MOHAMED I	19	24	85	96
20	311819106301	NAVANISH S	19	24	90	95
21	311819106302	SAHATH SUFIYAN S.A	19	24	80	96
22	311819106303	SALMAN S		25	95	100
SUBJECT FACULTY NAME			S. Priyadharshin			
SUBJECT FACULTY SIGN.						
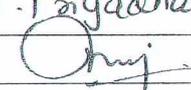
CLASS COORDINATOR

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

VAC - STUDENTS NAME LIST

Department of ......ECE.........

Academic Year:2022-2023

Name of the Value Added Course : IOT Using ARDUINO (ANNA UNIVERSITY APPROVED)				
Yr / Sem :IV/VII		Faculty In-charge : Ms.S.Piriyadharshini ,AP/ECE		
Location : Embedded and IOT Lab	Duration :45 Hrs			
Sl.No	Name of the Student	Register No.	Status of Qualifying	Sign of Student
1	AHAMED ALI. H	311819106001	YES	
2	AKSHAYA.K	311819106002	YES	
3	ASHWINI. A	311819106003	YES	
4	ASSIFA.A	311819106004	YES	
5	AVULA SUNEEL	311819106005	YES	
6	BHEULAH .G.L	311819106006	YES	
7	CHEMUDUGUNTA AJAY KUM	311819106007	YES	
8	HASHIM ASLAM	311819106008	YES	
9	JAHANGEER NADIR KHAN. P	311819106009	YES	
10	MOHAMED ABDULLAH M	311819106010	YES	
11	MOHAMED SALAUDEEN. R	311819106011	YES	
12	MOHAMMED ASIF. A	311819106012	YES	
13	MOHAMMED TAHEER	311819106013	YES	
14	MOHSIN KHAN. M	311819106014	YES	
15	PATTAPU PRATHYUSHA	311819106015	YES	
16	POTU GANGA MANOJ KUMAR	311819106016	YES	
17	RESMA .G	311819106017	YES	
18	RIZWAN AHAMED. M	311819106018	YES	
19	SYED AAKHIB MOHAMED I	311819106022	YES	
20	NAVANISH S	311819106301	YES	
21	SAHATH SUFIYAN S A	311819106302	YES	
22	SALMAN S	311819106303	YES	

Head-Training

Signature of HoD with date

ANNA UNIVERSITY :: CHENNAI - 600025.
OFFICE OF THE CONTROLLER OF EXAMINATIONS
Provisional Results of Nov. / Dec. Examination,2022.

Page 8/9

Inst.Code/Name : 3118 - MOHAMMED SATHAK A.J.COLLEGE OF ENGINEERING   Semester No. : 07   DATE OF PUBLICATION :DD-MM-YYYY

Branch : 106-B.E. Electronics and Communication Engineering

Reg. Number	Subject Code -> Stud. Name	EC8701 Grade	EC8702 Grade	EC8711 Grade	EC8751 Grade	EC8761 Grade	EC8791 Grade	HX8001 Grade	IVA067 Grade	OMF751 Grade
311819106001	AHAMED ALI H	B	U	B+	U	B+	U	O	O	U
311819106002	AKSHAYA K	A	B+	A	A	A+	B+	O	O	B+
311819106003	ASHWINI A	B+	A	A	B+	A	B+	O	O	B+
311819106004	ASSIFA A	A	A+	A	A+	O	A+	O	O	B+
311819106005	AVULA SUNEEL	B	B+	A+	B	A	B	O	O	B
311819106006	BHEULAH G L	A	A+	A	A+	A+	A+	O	O	A+
311819106007	CHEMUDUGUNTA AJAY KUMAR	B	B	B+	B	A	B	A+	O	B+
311819106008	HASHIM ASLAM T	B+	B+	A	B+	O	B+	O	O	B+
311819106009	JAHANGEER NADIR KHAN P	B+	B+	B+	B+	A	B+	O	O	B+
311819106010	MOHAMED ABDULLAH M	A	A	A	B	A	A	O	O	B+
311819106011	MOHAMED SALAHUDEEN R	B	B	B+	B	B+	B	O	O	B
311819106012	MOHAMMED ASIF A	B+	B	A	B	B+	U	A+	O	B
311819106013	MOHAMMED TAHEER R	U	U	B+	U	B+	U	A+	A+	B
311819106014	MOHSIN KHAN M	B	U	B+	U	B	U	A+	A+	B
311819106015	PATTAPU PRATHYUSHA	A	A	A+	B	O	B+	O	O	U
311819106016	POTU GANGA MANOJ KUMAR	A	A	O	B+	O	B	O	O	B+
311819106017	RESMA G	A	A	A	A	A+	B+	O	O	B+
311819106018	RIZWAN AHAMED M	B	U	B+	B	B	B	O	O	B+
311819106022	SYED AAKHIB MOHAMMED	U	U	B+	U	B	B	A+	A+	B+
311819106301	NAVINA S	U	UA	A	U	A	UA	A+	O	UA
311819106302	SAHAZATH SUFFIYAN S A	A	B	B+	B	B	B+	O	A+	B+
311819106303	SALMAN	B	U	A	U	A+	B	O	O	U

W - Withdrawal   I - Inadequate Attendance

WH1 - Withheld for Suspected Malpractice   WH(others) - Withheld for want of Clarification,approval,etc.

14-03-2023

Anna University - COE

ATTENDANCE

Roll No.	Register No. 31181910	Name	Month: August / Sep											October / November										
			Date: 10	11	16	17	18	23	24	30	1	6	9	20	27 28 27 28 27	11	12	13 27	1	2	3 thur			
			Period																					
1.	6001	Assifa . A		a	/	/	/		/		/			/	/			/		/	.	.		
2	6002	Akshaya . K			a	/				a			/	/		/	/	/	/				
3	6015	Pattapu Prathyusha			a	/	/		/		/			/	/		/	/	/	/				
4	6017	Reshma . G	OD	OD	OD	OD	OD		OD		/		/		/	/	/	.					
5	6003	Ashurni . A		a	a				/		/		/		/	/	/	/					
6	6006	Bheulah . G	/	a	/	a	/		/		/		a		/	/	/	.					
7	6001	Ahmed Ali . H	a	a	/	/			/		a		/		/	/	/	.					
8	6018	Rizwan Ahamed . M			a	a	a		a		/		/		/	/	/	.					
9	6010	Mohamed Abdullah . M		a	a	/			a		/		/		/	/	/	/					
10	6011	Mohamed Salaudeen . R		a	a	/			a		/		/		/	/							
11	6005	Avula Suneel		a	a	/	/	a	a	/		/		/		/	/	/	/				
12	6016	Petu Ganga Manoj Kumar	OD	OD	OD	OD	OD	OD	a		a		a		/	/	/						
13	6008	Hashim Aslam	OD	OD	OD	OD	OD	OD	/		/		/		/	/	/	0					
14	6007	Chemudugunta Ajaykumar		a	a	a	a	a	a		/		a		/	/	/	.					
15	6012	Mohammed Asif . A	OD	OD	OD	OD	OD	a	a		a		a		a	a	.	.					
16	6302	Sahazath Sufiyan S.A	OD	OD	OD	OD	OD	OD	a		/		a		a	/	.	.					
17	6013	Mohammed Taheer		a	a	a		/	a		a		a		a	.	/						
18	6022	Syed Aakhil . I	a	a	a	a	a	a	a		a		OD	OD	.	/							
19	6009	Jahangeer Nadir Khan.P	OD	OD	OD	OD	OD	OD	a		/		OD	OD	/	.							
20	6303	Salman . S	OD	OD	OD	OD	OD	OD	/		a		/	OD	/	/							
21	6301	Navinash . S	OD	OD	OD	OD	OD	OD	/		a		a	OD	/	.							
22	6014	Mohsin Khan . M	OD	OD	OD	OD	OD	OD	a		/		a	a	.	.							

| No. of Absentees | | | 9 | 13 | 6 | 6 | 9 | 3 | 2 | 4 | 8 | 9 | 1 | 6 | | 1 | 8 | 6 — 4 | | | | | | |
| Initial of the Faculty | | | aj | aj | aj | aj | aj | aj | aj | aj | aj | aj | aj | aj | | aj | aj | aj aj aj | | | | | | |

From

Date: 08-08-2022

Dr. Prasath S

Associate Professor and Head,

Department of Mechanical Engineering,

Mohamed Sathak AJ College of Engineering,

Siruseri (IT Park), Chennai -603 103.

To

Permitted

The Principal

Mohamed Sathak AJ College of Engineering,

Siruseri (IT Park), Chennai -603 103.

Respected Sir,

Sub: Permission for conducting Value Added course-reg.

With reference to the above cited subject, we have to conduct Add on/ Value Added Course for the students of Mechanical department in the academic year 2022-23(Odd Sem) through Offline. The selected course is offered for IV-year Mechanical students in Anna University Web portal and useful to the students for learning the emerging technical fields. Kindly grant me the permission.

S. No	Title of the course	Year/Branch	Durations
1.	MVA022-Introduction to Multibody dynamics	IV/Mech	30 Hrs

Thanking You

Yours faithfully

8\8\22

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot IT Highway Egattur,
Chennai - 603103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING

Chennai-603103

DEPARTMENT OF MECHANICAL ENGINEERING

Ref: MSAJCE/MECH/CIR/02   Date: 10-08-2022

CIRCULAR

We the department of Mechanical Engineering, planned to conduct the Value-added course for the below mentioned students in the academic year of 2022-23. Kindly follow the below schedule to complete the course successfully.

S.No	Title of the Course	Year/Branch	Course Co-ordinator
1	MVA022-Introduction to Multibody dynamics	IV/Mech	Mr. Mohan S R

Head of the Department

Head of the Department
Department of Mechinical Engineering
Mohamed Sathak A.J.College of Engineering
Egattur, Chennai - 603 103.

Copy to

Principal Office

Class Coordinator

Dept File

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

CENTRE FOR ACADEMIC COURSES
ANNA UNIVERSITY
CHENNAI – 600 025

Dr. S. HOSIMIN THILAGAR
DIRECTOR
Letter No.387/AU/VA/CAC/2021

22.03.2021

To
The Controller of Examinations
Anna University
Chennai - 25.

Sir/Madam,

Sub: A.U. - CAC - Affiliated Institutions - Value Added Course - Reg.
Ref : Letter No.MSAJCE/PO/021/2020-21, dated 09.02.2021.
******

With reference to the letter cited, the following Value Added Course offered by Mohammed Sathak A.J. College of Engineering, Chennai, Affiliated Institutions is allotted the Course Code as detailed below.

SL. No.	Code Allotted	Title	Credits			
			L	T	P	C
1.	MVA022	Introduction to Multi Body Dynamics	2	0	0	2

This is for your kind information and necessary action at your end.

Yours faithfully.
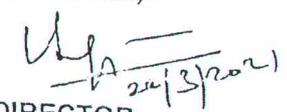
DIRECTOR

Copy to:
1. The Chairperson, Faculty of Mechanical Engineering, A.U., Ch -25.
2. The Principal, Mohamed Sathak A.J. College of Engineering, No:34, Rajiv Gandhi Road(OMR), IT Highway, Inside SIPCOT IT Park, Siruseri, Chennai – 603 103.
3. The Stock File – CAC.

Dr. Manju - Head TC

250321

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No 34, Rajiv Gandhi Salai (OMR)
Sipcot IT Highway Egattur,
Chennai - 603103.

SL. NO.	CODE ALLOTTED	TITLE	CREDITS
1.	MVA001	Small Unmanned Aerial Vehicle (sUAV) - Drone	2 credit
2.	MVA002	3D Printing	2 credit
3.	MVA003	Elements of Automation and Process Control	1 credit
4.	MVA004	Geometric Dimensioning and Tolerancing	2 credit
5.	MVA005	Smart Materials and Structures	2 credit
6.	MVA006	Green Energy Technologies and Management	2 credit
7.	MVA007	Automation Suite for Smart Systems	2 credit
8.	MVA008	Internet of Things Applications in Mechanical Engineering	1 credit
9.	MVA009	Surface Coating Technology	2 credit
10.	MVA010	Energy Resources and Management	2 0 0 2
11.	MVA011	Modeling for Design Engineers	2 0 0 2
12.	MVA012	Basic Concept of HVAC Designing and Drafting	2 0 0 2
13.	MVA013	Robotics Process Automation	2 0 0 2
14.	MVA014	Welding and Inspection Techniques	2 0 0 2
15.	MVA015	Modern Trends in Refrigeration and Air Conditioning	2 0 0 2
16.	MVA016	Finite Element Meshing Techniques	2 0 0 2
17.	MVA017	Nanoscience and Technology	2 0 0 2
18.	MVA018	Plant Design Management System	2 0 0 2
19.	MVA019	Technology for Energy Storage	2 0 0 2
20.	MVA020	Modeling Practice for Automotive Assemblies	2 0 0 2
21.	MVA021	Modeling and Machining Practice for CNC Machines	2 0 0 2
22.	MVA022	Introduction to Multi Body Dynamics	2 0 0 2
23.	MVA023	IoT and Augmented Reality Applications in Mechanical Engineering	1 0 2 2

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No 34, Rajiv Gandhi Salai (OMR)
Siroot - IT Highway Egattur,
Chennai 603103.
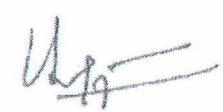
DIRECTOR
CENTRE FOR ACADEMIC COURSES

HOD/MECH
Head of the Department
DEPARTMENT OF MECHANICAL
Mohamed Sathak A.J.College of Engineering
Siruseri IT Park, Chennai - 603 103

B.E MECHANICAL ENGINEERING (REGULATIONS 2017)

VALUE ADDED COURSE

MVA022 INTRODUCTION TO MULTI BODY DYNAMICS

L T P C
2 0 0 2

OBJECTIVES:

- To present the basic theoretical knowledge of the Foundations of Multibody Dynamics
- To apply the knowledge of the applications to machine and structural dynamics.
- To analyze the static and dynamic behavior of the multibody dynamics.
- To derive the motion equation of the bodies.
- To gain the concept of motion mechanics related to applications of MBD.

Unit I : Introduction   6

The method of constraints for planar kinematic analysis. Revolute, prismatic, gear and cam pairs are considered together with other 2 degrees-of-freedom types of constraints.

Unit II : Basic principles for analysis of multi-body systems   6

The automatic assembly of the systems of equations for position, velocity and acceleration analysis. Iterative solution of systems of nonlinear equations. Geometry of masses. The principle of virtual work and Lagrange's equations.

Unit III : Dynamics of Planar Systems   6

Dynamics of planar systems. Systematic computation and assembly of mass matrix. Computation of planar generalized forces for external forces and for actuator-spring-damper element. Simple applications of inverse and forward dynamic analysis. Numerical integration of first-order initial value problems. The method of Baumgarte for the solution of mixed differential-algebraic equations of motion. The use of coordinates partitioning, QR and SVD decomposition for the orthogonalization of constraints.

Unit IV : Kinematics of rigid bodies in space   6

Reference frames for the location of a body in space. Euler angles and Euler parameters. The formula of Rodrigues. Screw motion in space. Velocity, acceleration and angular velocity. Relationship between the angular velocity vector and the time derivatives of Euler parameters.

Unit V : Kinematic analysis of spatial systems   6

Basic kinematic constraints. Joint definition frames. The constraints required for the description in space of common kinematic pairs (revolute, prismatic, cylindrical, spherical). Equations of motion of constrained spatial systems.

TOTAL: 30 HOURS

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
Rajiv Gandhi Salai (OMR)
Highway Egattur,
603103.

Head of the Department
HOD/MECH
DEPARTMENT OF MECHANICAL
Mohamed Sathak A.J.College of Engineering
Siruseri IT Park, Chennai - 603 103

OUTCOMES:

Upon completion of the course,

1. Write programs to solve constrained differential equations for analyzing multi-body systems.
2. Simulate and analyze all types of static behaviors of the multi-body systems including the kineto- static analysis.
3. Simulate and analyze all types of dynamic behaviors of the multi-body systems including the kineto-static analysis.
4. To derive equations of motion for interconnected bodies in multi-body systems with three-dimensional motion.
5. To Implement and analyze methods of formulating equations of motion for interconnected bodies.

TEXT BOOKS:

1. De Jalo n, J.C., Bayo, E., "Kinematic and Dynamic Simulation of Multibody Systems", Springer- Verlag, 1994.
2. Shabana, A.A., "Computational Dynamics", John Wiley and Sons, 1994
3. Kane, T.R, Levinson, D.A., "Dynamics: Theory and Applications", McGraw-Hill Book Co., 1985.

REFERENCES:

1. Rajiv Rampalli, Gabriele Ferrarotti and Michael Hoffmann, "Why Do Multi-Body System Simulation?", NAFEMS Publications, 2012.
2. Donald T. Greenwood, "Principles of Dynamics", 2nd edition, Prentice Hall, 1988.
3. Nikravesh, P.E., Computer Aided Analysis of Mechanical Systems, Prentice-Hall Inc., Englewood Cliffs, NJ, 1988

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
Rajiv Gandhi Salai (OMR)
Egattur,

MOHAMED SATHAK A J COLLEGE OF ENGINEERING
B.E./B.Tech. DEGREE EXAMINATIONS, NOV./DEC.-2022
Regulation – 2017
Seventh Semester – B.E Mechanical Engineering
Assessment - I
MVA022 Introduction to Multi Body Dynamics
(Value Added Course)

Marks : 100

Time : 3 Hrs

Answer All Questions

Part A (20×1=20 marks)

1. If we place some coins over the paper strip and pull it with a jerk, then coins don't fall off because of

   A. friction
   B. inertia
   C. resistance
   D. force

2. As weight is a force so it is a

   A. scalar quantity
   B. fixed quantity
   C. variable quantity
   D. vector quantity

3. The ratio of the force of limiting friction to normal reaction is

   A. zero
   B. constant
   C. greater than 1
   D. less than 2

4. The force that produces an acceleration of 1 ms^{-2} in a body of the mass of 1 kg is called
   A. slow newton
   B. zero newton
   C. one newton
   D. two newtons

5. When a net force act on a body, it produces acceleration in the body in the direction of the net force which is directly proportional to the net force acting on the body and inversely proportional to its mass. This statement is called

   A. newton's 2nd law of motion
   B. newton's 1st law of motion

1

C. newton's 3rd law of motion

D. law of momentum

6. Mass of a body (m) into acceleration (a) is equal to

   A. inertia
   B. displacement
   C. momentum
   D. force

7. Scalar quantities are completely described by their

   A. unit
   B. area
   C. direction
   D. magnitude

8. Radial distance between the pitch circle and the top of the tooth is known as

   A. Pitch
   B. Addendum
   C. base circle
   D. none of the mentioned

9. The circle from which an involute curve is generated is known as

   A. Pitch
   B. Addendum
   C. base circle
   D. none of the mentioned

10. Length of the arc of the pitch circle between the centers or other corresponding points of adjacent teeth is known as

    A. Pitch
    B. circular pitch
    C. base circle
    D. none of the mentioned

11. The angle between a tooth profile and a radial line at its pitch point is known as

    A. pressure angle
    B. dedendum angle
    C. spiral angle
    D. none of the mentioned

2

12. The total number of instantaneous centers for a mechanism consisting of n links are

    A. n/2
    B. n
    C. n-1
    D. n(n-1)/2

13. Which of the following property of the instantaneous center is correct?

    A. A rigid link rotates instantaneously relative to another link at the instantaneous centre for the configuration of the mechanism considered.
    B. The two rigid links have no linear velocity relative to each other at the instantaneous centre.
    C. The velocity of the instantaneous centre relative to any third link is same whether the instantaneous centre is regarded as a point on the first link or on the second rigid link.
    D. all of the mentioned

14. The instantaneous centers which vary with the configuration of mechanism, are called

    A. permanent instantaneous centers
    B. fixed instantaneous centers
    C. neither fixed nor permanent instantaneous centers
    D. none of the mentioned

15. When two links are connected by a pin joint, their instantaneous centre lies

    A. on their point of contact
    B. at the centre of curvature
    C. at the centre of circle
    D. at the pin joint

16. A slider moving on a fixed link having constant radius of curvature will have its instantaneous centre at the center of the circle.

    A. True
    B. False

17. When the two elements of a pair have _____ when in motion, it is said to a lower pair.

    A. line or point contact
    B. surface contact
    C. permit relative motion
    D. none of the mentioned

3

18. The two elements of a pair are said to form a higher pair, when they

   A. have a surface contact when in motion
   B. have a line or point contact when in motion
   C. are kept in contact by the action of external forces, when in motion
   D. permit relative motion

19. The given figure is a velocity time diagram for which of the follower motion?
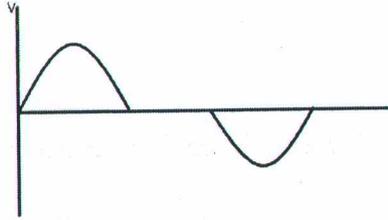
   A. Simple harmonic
   B. Uniform acceleration
   C. Uniform velocity
   D. Uniform retardation

20. To transmit power from one rotating shaft to another whose axes are neither parallel nor intersecting, use

   A. spur gear
   B. spiral gear
   C. bevel gear
   D. worm gear

Answer All Questions

Part B (5×8=40 marks)

21. Draw the Displacement, Velocity and Acceleration Diagrams when the follower moves with Simple Harmonic Motion and derive the expression for the maximum velocity during lift and the return stroke.

22. Derive the expression for velocity and acceleration of the slider of a simple slider crank mechanism.

23. Derive the expression for the minimum teeth required in a spur gear to avoid interference.

24. Derive the one-dimensional Euler Lagrange equation.

25. Derive the mass matrix for a prismatic finite element bar.

4

Answer All Questions

Part C (2×20=40 marks)

26. Draw the assembly of spur gears;

Driven gear teeth:120 and dia 12 in.

Driving gear teeth: 40 and dia 4 in.

Pitch angle: 20

Thickness: 1.5 in.

speed: 150 rpm

27. Trace the path for the following link mechanism.
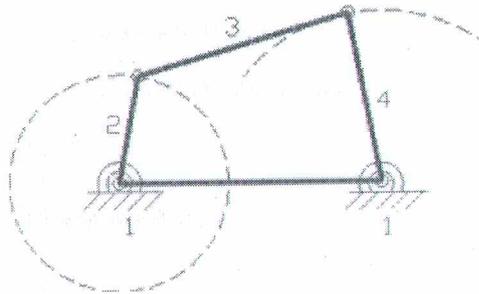
L1 = 800 mm

L2 = 200 mm

L3 = 480 mm

L4 = 560 mm

5

MOHAMED SATHAK A J COLLEGE OF ENGINEERING
B.E./B.Tech. DEGREE EXAMINATIONS, NOV./DEC.-2022
Regulation – 2017
Seventh Semester – B.E Mechanical Engineering
Assessment - II
MVA022 Introduction to Multi Body Dynamics
(Value Added Course)

Marks : 100   Time : 3 Hrs

Answer All Questions

Part A (20×1=20 marks)

1. The two elements of a pair are said to form a _____ when they permit relative motion between them.

   a) open pair
   b) kinematic pair
   c) higher pair
   d) lower pair

2. A combination of kinematic pairs, joined in such a way that the relative motion between the links is completely constrained, is called a

   a) structure
   b) mechanism
   c) kinematic chain
   d) inversion

3. The relation between number of pairs(p) forming a kinematic chain and the number of links(l) is

   a) $l = 2p - 2$
   b) $l = 2p - 3$
   c) $l = 2p - 4$
   d) $l = 2p - 5$

4. The relation between number of links(l) and number of joints(j) in a kinematic chain is

   a) $l = 1/2 \ (j+2)$
   b) $l = 2/3 \ (j+2)$
   c) $l = 3/4 \ (j+2)$
   d) $l = j+4$

5. The relation $l = 2/3(j+2)$ apply to kinematic chains in which lower pairs are used. This may be used to kinematic chains in which higher pairs are used, but each higher pair may be taken as equivalent to

a) one lower pair and two additional links
b) two lower pairs and one additional link
c) two lower pairs and two additional links
d) all of the mentioned

6. The acceleration of a particle at any instant moving along a circular path in a direction tangential to that instant, is known

   a) tangential component
   b) normal component
   c) parallel component
   d) none of the mentioned

7. The size of a cam depends upon

   a) base circle
   b) pitch circle
   c) prime circle
   d) pitch curve

8. The cam follower generally used in automobile engines is

   a) knife edge follower
   b) flat faced follower
   c) spherical faced follower
   d) roller follower

9. A radial follower is one

   a) that reciprocates in the guides
   b) that oscillates
   c) in which the follower translates along an axis passing through the cam centre of rotation.
   d) none of the mentioned

10. Offset is provided to a cam follower mechanism to

    a) minimize the side thrust
    b) accelerate
    c) avoid jerk
    d) none of the mentioned

11. The given figure is a velocity time diagram for which of the follower motion?
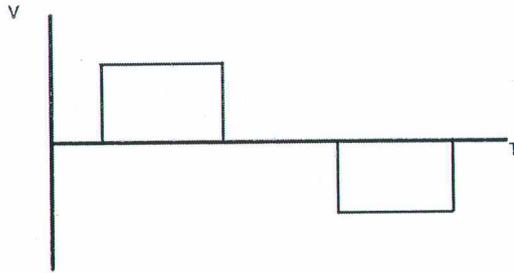
    a) Simple harmonic
    b) Uniform acceleration
    c) Uniform velocity
    d) Uniform retardation

12. If a follower is undergoing simple harmonic motion, then at what value of angle of ascent the acceleration is maximum?

    a) 0
    b) 30
    c) 45
    d) 60

13. If all the masses are in one plane, then what is the maximum no. of masses which can be placed in the same plane?

    a) 3
    b) 4
    c) 6
    d) No limitation

14. If the rotation speed of the shaft increases then the balancing mass must also increase.

    a) True
    b) False

15. The type of pair formed by two elements which are so connected that one is constrained to turn or revolve about a fixed axis of another element is known as

    a) turning pair
    b) rolling pair
    c) sliding pair
    d) spherical pair

16. Which of the following is a lower pair

    a) ball and socket i

8

b) piston and cylinder
c) cam and follower
d) (a) and (b) above

17. The example of spherical pair is

    a) bolt and nut
    b) lead screw of a lathe
    c) ball and socket joint
    d) ball bearing and roller bearing

18. If there are L number of links in a mechanism then number of possible inversions is equal to

    a) L + 1
    b) L – 1
    c) L
    d) L + 2

19. Rectangular bar in a rectangular hole is the following type of Pair

    a) completely constrained motion
    b) partially constrained motion
    c) incompletely constrained motion
    d) freely constrained motion

20. When a ship travels in a sea, which of the effect is more dangerous

    a) steering
    b) pitching
    c) rolling
    d) all of the above

Answer All Questions

Part B (5×8=40 marks)

21. Explain the Baumgarte method for the solution of mixed differential algebraic equations of motion.

22. Explain the Euler parameters when the rigid body in space.

23. Explain the kinematic following pairs a) revolute b) prismatic c) cylindrical d) spherical

24. Explain Screw motion in space.

25. Explain the applications of inverse and forward dynamic analysis.

9

Part C (2×20=40 marks)

26. Draw the assembly of spur gears;
    Driven gear teeth:40 and dia 10cm.
    Driving gear teeth: 40 and dia 10cm.
    Pitch angle: 20
    Thickness: 2cm.
    speed: 55 rpm

27. Draw the cam follower mechanism in multibody dynamic software.
    (Use suitable dimensions)

VALUE ADDED COURSE - COURSE CONTENT

Department of Mechanical Engineering

Class : IV Year/ VII Semester   Academic Year: 2022-23

Name of the Value Added Course	MVA022 Introduction to Multibody Dynamics	Name of the handling Faculty	Mr. Mohan S R

Course Objective

The Students will acquire to
• To present the basic theoretical knowledge of the Foundations of Multi body dynamics
• To apply the knowledge of the applications to machine and structural dynamics.
• To analyze the static and dynamic behaviour of the multi body dynamics.
• To derive the motion equation of the bodies.
• To gain the concept of motion mechanics related to applications of MBD.

Course Outcome

Upon completion of the course,
1. Write programs to solve constrained differential equations for systems analyzing multi-body
2. Simulate and analyze all types of static behaviours of the multi-body systems including the kineto- static analysis.
3. Simulate and analyze all types of dynamic behaviours of the multi-body systems including the kineto-static analysis.
4. To derive equations of motion for interconnected bodies in multi-body systems with three-dimensional motion.
5. To Implement and analyze methods of formulating equations of motion for Inter-connected bodies.

Lesson Plan for VAC				

Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	The method of constraints for planar kinematic analysis	T	1	PPT & BB
2	Revolute, prismatic, gear and cam pairs are considered together with other 2 DOF	T	2	PPT & BB
3	Introduction to Basic principles for analysis of multi-body systems	T	1	PPT & BB
4	The automatic assembly of the systems of equations for position	T	2	PPT & BB
5	The principle of virtual work and Lagrange's equations	T	1	PPT & BB
6	Introduction to Dynamics of Planar Systems	T	1	PPT & BB
7	Systematic computation and assembly of mass matrix	T	2	PPT & BB
8	Computation of planar generalized forces for external forces and for actuator-spring-damper element	T	1	PPT & BB
9	Simple applications of inverse and forward dynamic analysis	T	2	PPT & BB
10	Numerical integration of first-order initial value problems	T	1	PPT & BB

11	The method of Baumgarte for the solution of mixed differential-algebraic equations of motion	T	2	PPT & BB
12	The use of coordinates partitioning, QR and SVD decomposition for the orthogonalization of constraints	T	2	PPT & BB
13	Reference frames for the location of a body in space	T	1	PPT & BB
14	Euler angles and Euler parameters	T	2	PPT & BB
15	Kinematic analysis of spatial systems	T	2	PPT & BB
16	Equations of motion of constrained spatial systems	T	2	PPT & BB
17	Exercise	T	5	PPT & BB

Quiz / Mini Projects / Model Develpoed if any
NIL

Text / Reference Books	
1	De Jalo n, J.C., Bayo, E.,"Kinematic and Dynamic Simulation of Multibody Systems", Springer- Verlag,1994.
2	Kane, T.R, Levinson, D.A., "Dynamics: Theory and Applications", McGraw-Hill Book Co., 1985.

Website / URL References	
1	https://www.youtube.com/watch?v=1Tyxgv7RUdk

Sign. of Course Coordinator

Mohan. S.R.

Sign. of HoD with date

Head of the Department

DEPARTMENT OF MECHANICAL

Mohamed Sathak A.J.College of Engineering

Siruseri IT Park, Chennai - 603 103

Head-TC

PRINCIPAL

Mohamed Sathak A.J. College of Engineering

No.34, Rajiv Gandhi Salai (OMR)

Sipcot - IT Highway Egattur,

Chenai - 603103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING
Anna University - Value Added Course
MVA022 Introduction to Multibody Dynamics

NAME LIST

S.No	Reg.No	Student Name	Signature
1	311819114001	AAYATHUL MUFARAK. A	
2	311819114002	ABDULLAH B	
3	311819114003	ATEF JAMALUDEEN N	
4	311819114004	BALAJI J	
5	311819114005	GOKUL M	
6	311819114006	GUNAL. S	
7	311819114007	HELAL AHAMED M	
8	311819114008	JAHETH SALMAN. B	
9	311819114009	KABIR MOHAMED. A	
10	311819114010	LAXSHAN M	
11	311819114011	MOHAMED ARSATH M	
12	311819114013	MOHAMED SHAJITH. M	
13	311819114014	MOHAMED TOWFIC A	
14	311819114015	MOHAMMED IRFAAN P	
15	311819114016	MOHAMMED ISMAIL M	
16	311819114017	MOHAMMED KURSHITH ALI. M	
17	311819114018	MUSHARRAF ALI. S	
18	311819114019	NAJUBUDEEN K	
19	311819114020	SHEIK HUSSAIN. A	
20	311819114021	UMAR MUBARAK M	

21	311819114301	ARSATH A	A. Arsath
22	311819114303	P MANIKANDAN	P.
23	311819114304	MOHAMMED AASHIK M	M
24	311819114305	RAMKUMAR.C	C.
25	311819114306	SALAUDEEN BADUSHA	S. Salau
26	311819114307	SANJAY KUMAR.C	—
27	311819114308	SYED SUFFIYAN	Sufain
28	311819114309	UMASHANKAR. V .	V.
29	311819114310	VIJAYA SARATHI. V	V. Vyaysaradh
30	311819114311	SARATHKUMAR.N	

Coordinator

HOD/Mech
Head HOD/Mech
DEPART   OF MECHANICAL
Mohamed S   of Engineering
Siruse   Chennai - 603 103
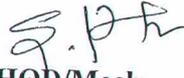
PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING
Anna University - Value Added Course
MVA022 Introduction to Multibody Dynamics
Assessment Test -1
Attendance Register

Date: 29/09/2022

S.No	Reg.No	Student Name	Signature
1	311819114001	AAYATHUL MUFARAK. A	
2	311819114002	ABDULLAH B	
3	311819114003	ATEF JAMALUDEEN N	
4	311819114004	BALAJI J	
5	311819114005	GOKUL M	
6	311819114006	GUNAL. S	
7	311819114007	HELAL AHAMED M	
8	311819114008	JAHETH SALMAN. B	
9	311819114009	KABIR MOHAMED. A	
10	311819114010	LAXSHAN M	
11	311819114011	MOHAMED ARSATH M	
12	311819114013	MOHAMED SHAJITH. M	
13	311819114014	MOHAMED TOWFIC A	
14	311819114015	MOHAMMED IRFAAN P	
15	311819114016	MOHAMMED ISMAIL M	
16	311819114017	MOHAMMED KURSHITH ALI. M	
17	311819114018	MUSHARRAF ALI. S	
18	311819114019	NAJUBUDEEN K	
19	311819114020	SHEIK HUSSAIN. A	
20	311819114021	UMAR MUBARAK M	

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai
Sipcot IT Highway
Chennai 60...

21	311819114301	ARSATH A	
22	311819114303	P MANIKANDAN	
23	311819114304	MOHAMMED AASHIK M	
24	311819114305	RAMKUMAR.C	
25	311819114306	SALAUDEEN BADUSHA	
26	311819114307	SANJAY KUMAR.C	
27	311819114308	SYED SUFFIYAN	
28	311819114309	UMASHANKAR. V	
29	311819114310	VIJAYA SARATHI. V	
30	311819114311	SARATHKUMAR.N	

Coordinator (Mohan. SP)

HOD/Mech
Head of the Department
DEPARTMENT OF MECHANICAL
Mohamed Sathak A.J.College of Engineering
Siruseri IT Park, Chennai - 603 103

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Sala
Sipcot - IT Highway
Chenai - 603 103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING

Anna University - Value Added Course
MVA022 Introduction to Multibody Dynamics
Assessment Test -2
Attendance Register

Date: 09|11|2022

S.No	Reg.No	Student Name	Signature
1	311819114001	AAYATHUL MUFARAK. A	
2	311819114002	ABDULLAH B	
3	311819114003	ATEF JAMALUDEEN N	
4	311819114004	BALAJI J	
5	311819114005	GOKUL M	
6	311819114006	GUNAL. S	
7	311819114007	HELAL AHAMED M	
8	311819114008	JAHETH SALMAN. B	
9	311819114009	KABIR MOHAMED. A	
10	311819114010	LAXSHAN M	
11	311819114011	MOHAMED ARSATH M	
12	311819114013	MOHAMED SHAJITH. M	
13	311819114014	MOHAMED TOWFIC A	
14	311819114015	MOHAMMED IRFAAN P	
15	311819114016	MOHAMMED ISMAIL M	
16	311819114017	MOHAMMED KURSHITH ALI. M	
17	311819114018	MUSHARRAF ALI. S	
18	311819114019	NAJUBUDEEN K	
19	311819114020	SHEIK HUSSAIN. A	
20	311819114021	UMAR MUBARAK M	

21	311819114301	ARSATH A	
22	311819114303	P MANIKANDAN	
23	311819114304	MOHAMMED AASHIK M	
24	311819114305	RAMKUMAR.C	
25	311819114306	SALAUDEEN BADUSHA	
26	311819114307	SANJAY KUMAR.C	AB
27	311819114308	SYED SUFFIYAN	
28	311819114309	UMASHANKAR. V	
29	311819114310	VIJAYA SARATHI. V	
30	311819114311	SARATHKUMAR.N	

20/9/22

Coordinator

S.P.R 29/9/22

HOD/Mech

Head of the Department
DEPARTMENT OF MECHANICAL
Mohamed　　　　　ege of Engineering
Siruseri Park, Chennai - 603 103

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv
Sipcot

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

VAC - STUDENTS NAME LIST

Department of Mechanical Engineering

Academic Year:　　2022-23

Name of the Value Added Course : MVA022 - Introduction to Multibody Dynamics				
Yr / Sem : IV/VII		Faculty In-charge :	Mr.Mohan S R	
Location : Altair Lab		Duration :	30 Hrs	
Sl.No	Name of the Student	Register No.	Status of Qualifying	Sign of Student
1	AAYATHUL MUFARAK. A	311819114001	PASS	
2	ABDULLAH B	311819114002	PASS	
3	ATEF JAMALUDEEN N	311819114003	PASS	
4	BALAJI J	311819114004	PASS	
5	GOKUL M	311819114005	PASS	
6	GUNAL. S	311819114006	PASS	
7	HELAL AHAMED M	311819114007	PASS	
8	JAHETH SALMAN. B	311819114008	PASS	
9	KABIR MOHAMED. A	311819114009	PASS	
10	LAXSHAN M	311819114010	PASS	
11	MOHAMED ARSATH M	311819114011	PASS	
12	MOHAMED SHAJITH. M	311819114013	PASS	
13	MOHAMED TOWFIC A	311819114014	PASS	
14	MOHAMMED IRFAAN P	311819114015	PASS	
15	MOHAMMED ISMAIL M	311819114016	PASS	
16	MOHAMMED KURSHITH ALI. M	311819114017	PASS	
17	MUSHARRAF ALI. S	311819114018	PASS	
18	NAJUBUDEEN K	311819114019	PASS	
19	SHEIK HUSSAIN. A	311819114020	PASS	
20	UMAR MUBARAK M	311819114021	PASS	
21	ARSATH A	311819114301	PASS	
22	P MANIKANDAN	311819114303	PASS	

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.54, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

23	MOHAMMED AASHIK M	311819114304	PASS	
24	RAMKUMAR.C	311819114305	PASS	
25	SALAUDEEN BADUSHA	311819114306	PASS	
26	SANJAY KUMAR.C	311819114307	FAIL	
27	SYED SUFFIYAN	311819114308	PASS	
28	UMASHANKAR. V	311819114309	PASS	
29	VIJAYA SARATHI. V	311819114310	PASS	
30	SARATHKUMAR.N	311819114311	PASS	
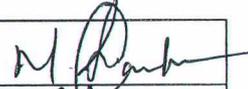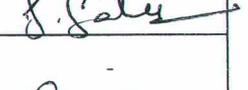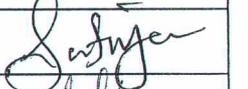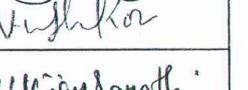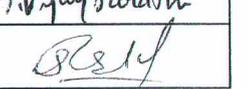
Mohan. G.R

Head-Training
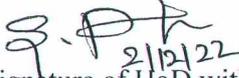
2/12/22

Signature of HoD with date
Head of the Department
DEPARTMENT OF MECHANICAL
Mohamed Sathak A.J.College of Engineering
Siruseri IT Park, Chennai - 603 103

Format No.: TLP 20   Rev.No.: 01   Rev.Date: 04.01.21

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

ANNA UNIVERSITY, CHENNAI – 600 025

B.E. DEGREE EXAMINATIONS

Folio No. **AUI7065339**

A032197240425N

CONSOLIDATED STATEMENT OF GRADES

NAME OF THE CANDIDATE	ATEF JAMALUDEEN		REGISTER NO.	311819114003	REGULATIONS	2017 (CBCS)
COLLEGE OF STUDY	MOHAMMED SATHAK A.J.COLLEGE OF ENGINEERING		GENDER	MALE	DATE OF BIRTH	29-JAN-2002
PROGRAMME & BRANCH	B.E. Mechanical Engineering		MONTH & YEAR OF LAST APPEARANCE	April 2023	MEDIUM OF INSTRUCTION	English

SEM	COURSE CODE	COURSE TITLE	C	LG	GP	MONTH & YEAR OF PASSING	SEM	COURSE CODE	COURSE TITLE	C	LG	GP	MONTH & YEAR OF PASSING
01	CY8151	Engineering Chemistry	3	A	8	DEC 2019	05	ME8594	Dynamics of Machines	4	O	10	NOV 2021
01	GE8151	Problem Solving and Python Programming	3	B+	7	DEC 2019	05	ME8595	Thermal Engineering- II	3	A	8	NOV 2021
01	GE8152	Engineering Graphics	4	A+	9	DEC 2019	05	ORO551	Renewable Energy Sources	3	A	8	NOV 2021
01	HS8151	Communicative English	4	A	8	DEC 2019	05	ME8511	Kinematics and Dynamics Laboratory	2	O	10	NOV 2021
01	MA8151	Engineering Mathematics - I	4	A	8	DEC 2019	05	ME8512	Thermal Engineering Laboratory	2	O	10	NOV 2021
01	PH8151	Engineering Physics	3	B+	7	DEC 2019	05	ME8513	Metrology and Measurements Laboratory	2	O	10	NOV 2021
01	BS8161	Physics and Chemistry Laboratory	2	O	10	DEC 2019	06	ME8651	Design of Transmission Systems	3	B+	7	APR 2022
01	GE8161	Problem Solving and Python Programming Laboratory	2	O	10	DEC 2019	06	ME8691	Computer Aided Design and Manufacturing	3	B+	7	APR 2022
02	BE8253	Basic Electrical, Electronics and Instrumentation Engineering	3	O	10	APR 2020	06	ME8692	Finite Element Analysis	3	B+	7	APR 2022
02	GE8291	Environmental Science and Engineering	3	O	10	APR 2020	06	ME8693	Heat and Mass Transfer	4	A	8	APR 2022
02	GE8292	Engineering Mechanics	4	O	10	APR 2020	06	ME8694	Hydraulics and Pneumatics	3	A	8	APR 2022
02	HS8251	Technical English	4	O	10	APR 2020	06	IE8693	Production Planning and Control	3	B+	7	APR 2022
02	MA8251	Engineering Mathematics - II	4	O	10	APR 2020	06	HS8581	Professional Communication	1	O	10	APR 2022
02	PH8251	Materials Science	3	O	10	APR 2020	06	ME8091	Automobile Engineering	3	B+	7	APR 2022
02	BE8261	Basic Electrical, Electronics and Instrumentation Engineering Laboratory	2	O	10	APR 2020	06	ME8681	CAD/CAM Laboratory	2	O	10	APR 2022
02	GE8261	Engineering Practices Laboratory	2	O	10	APR 2020	06	ME8682	Design and Fabrication Project	2	O	10	APR 2022
03	CE8394	Fluid Mechanics and Machinery	4	B	6	NOV 2020	07	ME8791	Mechatronics	3	A	8	NOV 2022
03	EE8353	Electrical Drives and Controls	3	A	8	NOV 2020	07	ME8792	Power Plant Engineering	3	A	8	NOV 2022
03	MA8353	Transforms and Partial Differential Equations	4	A	8	NOV 2020	07	ME8793	Process Planning and Cost Estimation	3	B+	7	NOV 2022
03	ME8351	Manufacturing Technology - I	3	A	8	NOV 2020	07	ME8073	Unconventional Machining Processes	3	A	8	NOV 2022
03	ME8391	Engineering Thermodynamics	4	A+	9	NOV 2020	07	MG8591	Principles of Management	3	A+	9	NOV 2022
03	EE8361	Electrical Engineering Laboratory	2	O	10	APR 2021	07	ME8097	Non Destructive Testing and Evaluation	3	B+	7	NOV 2022
03	ME8361	Manufacturing Technology Laboratory - I	2	O	10	APR 2021	07	OMF751	Lean Six Sigma	3	A+	9	NOV 2022
03	ME8381	Computer Aided Machine Drawing	2	O	10	APR 2021	07	ME8711	Simulation and Analysis Laboratory	2	O	10	NOV 2022
03	HS8381	Interpersonal Skills/Listening and Speaking	1	O	10	NOV 2020	07	ME8781	Mechatronics Laboratory	2	O	10	NOV 2022
04	CE8395	Strength of Materials for Mechanical Engineers	3	A+	9	APR 2021	07	SB8011**	Basics of Industry 4.0	2	O	10	NOV 2022
04	MA8452	Statistics and Numerical Methods	4	A+	9	APR 2021	07	ME8712	Technical Seminar	1	O	10	NOV 2022
04	ME8451	Manufacturing Technology -II	3	A+	9	APR 2021	08	ME8811	Project Work	10	O	10	APR 2023
04	ME8491	Engineering Metallurgy	3	A	8	APR 2021							
04	ME8492	Kinematics of Machinery	3	A	8	APR 2021		Value Added Course(s), and these courses are not considered for CGPA Calculation					
04	ME8493	Thermal Engineering- I	3	A	8	APR 2021	07	MVA022	Introduction to Multi Body Dynamics	2	A+	9	NOV 2022
04	CE8381	Strength of Materials and Fluid Mechanics and Machinery Laboratory	2	O	10	APR 2021							
04	HS8461	Advanced Reading and Writing	1	O	10	APR 2021							
04	ME8462	Manufacturing Technology Laboratory - II	2	O	10	APR 2021							
05	ME8501	Metrology and Measurements	3	A	8	NOV 2021							
05	ME8593	Design of Machine Elements	3	A+	9	NOV 2021							

*** End of Statement ***

Cumulative Grade Point Average : 8.73

Classification : FIRST CLASS WITH DISTINCTION

** The Grade Point Secured is not included for the calculation of CGPA as per the Regulations.

SEM - Semester, C - Credits, LG - Letter Grade, GP - Grade Point

Range of Marks	91 - 100	81 - 90	71 - 80	61 - 70	57 - 60	50 - 56	< 50
Letter Grade	O	A+	A	B	C	D	E	U
Grade Point	10	9	8	7	6	5	0

[Grade Classification R-2008 / R-2013]

$$CGPA = \frac{\sum\limits_{i=1}^{n} C_i GP_i}{\sum\limits_{i=1}^{n} C_i}$$

where
C_i - is the credits assigned to the course
GP_i - is the point corresponding to the grade obtained for each course
n - is number of all courses successfully cleared during all the semesters

[Grade Classification R-2017]

Range of Marks	91-100	81-90	71-80	61-70	50-60	<50
Letter Grade	O	A+	A	B+	B	U
Grade Point	10	9	8	7	6	0

SIGNATURE OF THE STUDENT

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR),
Siruseri, Egattur,
Chennai - 603 103.

P. Seethairal
CONTROLLER OF EXAMINATIONS

ANNA UNIVERSITY, CHENNAI - 600 025

B.E. DEGREE EXAMINATIONS
CONSOLIDATED STATEMENT OF GRADES

Folio No. **AUI7093474**
R037080140425C

NAME OF THE CANDIDATE	RAM KUMAR C	REGISTER NO.	311819114305	REGULATIONS	2017 (CBCS)
COLLEGE OF STUDY	MOHAMMED SATHAK A.J.COLLEGE OF ENGINEERING	GENDER	MALE	DATE OF BIRTH	29-JUL-2001
PROGRAMME & BRANCH	B.E. Mechanical Engineering	MONTH & YEAR OF LAST APPEARANCE	April 2023	MEDIUM OF INSTRUCTION	English

SEM	COURSE CODE	COURSE TITLE	C	LG	GP	MONTH & YEAR OF PASSING	SEM	COURSE CODE	COURSE TITLE	C	LG	GP	MONTH & YEAR OF PASSING
03	CE8394	Fluid Mechanics and Machinery	4	B+	7	NOV 2020	07	ME8793	Process Planning and Cost Estimation	3	B+	7	NOV 2022
03	EE8353	Electrical Drives and Controls	3	A	8	NOV 2020	07	ME8073	Unconventional Machining Processes	3	B+	7	NOV 2022
03	MA8353	Transforms and Partial Differential Equations	4	B	6	NOV 2020	07	ME8097	Non Destructive Testing and Evaluation	3	B	6	NOV 2022
03	ME8351	Manufacturing Technology - I	3	B+	7	NOV 2020	07	OMF751	Lean Six Sigma	3	B	6	NOV 2022
03	ME8391	Engineering Thermodynamics	4	B+	7	NOV 2020	07	ME8711	Simulation and Analysis Laboratory	2	A+	9	NOV 2022
03	EE8361	Electrical Engineering Laboratory	2	O	10	APR 2021	07	SB8008**	Introduction to Machine Learning	2	A+	9	NOV 2022
03	ME8361	Manufacturing Technology Laboratory - I	2	A+	9	APR 2021	07	ME8781	Mechatronics Laboratory	2	A	8	NOV 2022
03	ME8381	Computer Aided Machine Drawing	2	A+	9	APR 2021	07	ME8712	Technical Seminar	1	A+	9	NOV 2022
03	HS8381	Interpersonal Skills/Listening and Speaking	1	O	10	NOV 2020	08	MG8591	Principles of Management	3	B	6	APR 2023
04	CE8395	Strength of Materials for Mechanical Engineers	3	B+	7	APR 2021	08	IE8693	Production Planning and Control	3	B+	7	APR 2023
04	MA8452	Statistics and Numerical Methods	4	A+	9	APR 2021	08	ME8811	Project Work	10	A+	9	APR 2023
04	ME8451	Manufacturing Technology - II	3	B+	7	APR 2021			Value Added Course(s), and these courses are not considered for CGPA Calculation				
04	ME8491	Engineering Metallurgy	3	A	8	APR 2021							
04	ME8492	Kinematics of Machinery	3	B	6	APR 2021	07	MVA022	Introduction to Multi Body Dynamics	2	A+	9	NOV 2022
04	ME8493	Thermal Engineering- I	3	B+	7	APR 2021							
04	CE8381	Strength of Materials and Fluid Mechanics and Machinery Laboratory	2	A+	9	APR 2021			*** End of Statement ***				
04	HS8461	Advanced Reading and Writing	1	A	8	APR 2021			Cumulative Grade Point Average : 7.42				
04	ME8462	Manufacturing Technology Laboratory - II	2	A+	9	APR 2021			Classification : FIRST CLASS				
05	ME8501	Metrology and Measurements	3	B+	7	NOV 2021							
05	ME8593	Design of Machine Elements	3	A+	9	NOV 2021							
05	ME8594	Dynamics of Machines	4	A+	9	NOV 2021							
05	ME8595	Thermal Engineering- II	3	B	6	NOV 2021							
05	ORO551	Renewable Energy Sources	3	B+	7	NOV 2021							
05	ME8511	Kinematics and Dynamics Laboratory	2	A+	9	NOV 2021							
05	ME8512	Thermal Engineering Laboratory	2	A+	9	NOV 2021							
05	ME8513	Metrology and Measurements Laboratory	2	A+	9	NOV 2021							
06	ME8651	Design of Transmission Systems	3	B	6	APR 2022							
06	ME8691	Computer Aided Design and Manufacturing	3	B	6	APR 2022							
06	ME8692	Finite Element Analysis	3	B	6	APR 2022							
06	ME8693	Heat and Mass Transfer	4	B	6	APR 2022							
06	ME8694	Hydraulics and Pneumatics	3	B	6	APR 2022							
06	ME8091	Automobile Engineering	3	B	6	APR 2022							
06	HS8581	Professional Communication	1	A+	9	APR 2022							
06	ME8681	CAD/CAM Laboratory	2	A+	9	APR 2022							
06	ME8682	Design and Fabrication Project	2	B+	7	APR 2022							
07	ME8791	Mechatronics	3	B	6	NOV 2022							
07	ME8792	Power Plant Engineering	3	B	6	NOV 2022							

SEM - Semester, C- Credits, LG - Letter Grade, GP - Grade Point

Range of Marks	91 - 100	81 - 90	71 - 80	61 - 70	57 - 60	50 - 56	< 50
Letter Grade	S	A	B	C	D	E	U
Grade Point	10	9	8	7	6	5	0

[Grade Classification R-2008 / R-2013]

$$CGPA = \frac{\sum_{i=1}^{n} C_i GP_i}{\sum_{i=1}^{n} C_i}$$

where
C_i - is the credits assigned to the course
GP_i - is the point corresponding to the grade obtained for each course
n - is number of all courses successfully cleared during all the semesters

[Grade Classification R-2017]

Range of Marks	91-100	81-90	71-80	61-70	50-60	<50
Letter Grade	O	A+	A	B+	B	U
Grade Point	10	9	8	7	6	0

** The Grade Point Secured is not included for the calculation of CGPA as per the Regulations.

*This grading methodology employed here for the candidate is based on regulations-2017 (R2017)

PRINCIPAL
Mohamed Sathak A.J.College of Engineering
No.34, Rajiv Gandhi Salai (OMR),
Siponcheri, Kancheepuram, Egattur,
Chennai-603 103.

SIGNATURE OF THE STUDENT

CONTROLLER OF EXAMINATIONS

Chennai - 600 025.
Date : 10/08/2023

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

Department for Electrical and Electronics Engineering

Ref: MSAJCE/EEE/ODD/01   Date:19/8/2022

CIRCULAR

This is to inform all the faculty and students that the below mentioned Add on/ Technology Center Courses are planned to be conducted in the Academic year 2022-2023 (odd semester). Kindly follow the schedule to complete the course successfully.

S.No	Year	Course Title	Coordinator
1	II - EEE	Labview	Mrs.Archana.C
2	IV - EEE	Simulation of Electric Vehicle	Mr.Venkatesh.C

HOD Dr. JEHA.J

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Copy to

- Principal
- Class Advisor
- Department File

From

Mrs Archana.C,

EEE Department,

MSAJCE,

Chennai.

To

The Principal,

MSAJCE,

Chennai.

Permitted

*Am/
15.08.22*

Respected sir,

Sub: Permission for conducting Technology Center Course regarding.

We have planned to conduct Technology Center Course – Labview for the students of II year EEE department in the academic year 2022-2023(odd semester). The selected course will be useful for our students. Kindly grant us permission to conduct the course.

Thank you

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Yours faithfully,

ARCHANA·A

Dr:JEHA:J
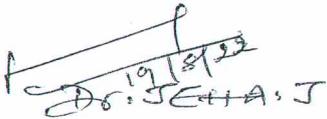
MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

COURSE CONTENT

Department of Electrical and Electronics Engineering

Class :	II/III sem		Academic Year:	2022-23	
Name of the Value Added Course	LAB-VIEW	Name of the handling Faculty		Mrs.Archana.C	

Course Objective

To familiarize the student in introduction and exploring LabView software.

To enable the student on how to approach for solving Engineering problems using simulation tools

To prepare the students to use LabView in their project works.

To provide a foundation in use of this software for real time applications

Course Outcome

Express programming and simulation for Engineering problems

Find importance of this software for lab experimentation

Articulate importance of softwares in research by simulation work.

Have in depth knowledge of providing virtual instruments on LabView environment

Write basic mathematical, electrical,electronic problems in LabView with GUI Simulink

Lesson Plan for TAC

Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	Introduction of LabVIEW	T1	3	PPT, Simulation
2	Designing the Software	T1	3	PPT, Simulation
3	Basic Programming	T1	4	PPT, Simulation
4	Designing of Sub Programs	T1	4	PPT, Simulation
5	Programming Loops	T1	4	PPT, Simulation
6	Structures	T1	4	PPT, Simulation
7	String	T1	5	PPT, Simulation
8	Data Handling	T1	2	PPT, Simulation
9	Array and clusters	T1	2	PPT, Simulation
10	External Interfaces	T1	4	PPT, Simulation
11	Data Acquisitions Process	T1	3	PPT, Simulation
12	Instrument Control based on Embedded Controllers	T1	3	PPT, Simulation
13	Instrument Control based on Embedded Controllers	T1	4	PPT, Simulation

Quiz / Mini Projects / Model Develpoed if any

Quiz

Text / Reference Books

1	LabVIEW for Everyone 1. Jeffrey Travis (Author) 2.Jim Kring (Author) Prentice Hall, 3rd Edition

Website / URL References

1	http://www.ni.com/academi...ents/learn-labview
2	https://www.labviewmakerhut...om/

Sign. of Course Coordinator

Sign. of HoD with date

Head-TC

LABVIEW SYLLABUS

1. INTRODUCTION to LABVIEW   (9 HOURS)

Front panel-Block Diagram- Numeric-Normal method, Formula method, Expression Method-Comparators-Boolean-Logical Gates-Boolean to number Conversion-Selector switch

2. ARRAY & STRING   (9 HOURS)

String-Concatenated-Replace String-String Subset-Search and replace string-Match Pattern-Path/Array/string-Array-Array Size-Split Array-Index Array- Replace Subset-Insert into Array-Delete from array-Build array-array subset-Sort 1D array-Cluster

3. PROGRAM EXECUTION WITH STRUCTURES (9 HOURS)

For loop-Tunnel Modes-Shift Register-Feedback Loop- While loop-case structure-SUB VI- Local Variable-Global Variable-Mechanical action of Boolean Switch

4. WAVEFORMS   (9 HOURS)

Build waveform- Waveform Chart -Waveform Graph-1D Graph-2D Graph-Different modes in chart-Property Node-Implicit property node-Explicit property node-Invoke Node-State machine Architecture-Type Definition.

5. DATA ACQUISITION   (9 HOURS)

Introduction- High level VI -Acquiring Data-Generating Data-Fine Sample-Continuous Sample-Low level VI -Acquiring Data-Generating Data-File I/O-Read Delimiter-Write Delimiter-Error handling concepts. Project Creation-Virtual Folder-Auto populating Folder

LIST OF SUGGESTED BOOKS

1. Virtual Instrumentation using LabVIEW by Jovita Jerome
2. Introduction to LabVIEW and LabVIEW Basics by National Instruments

Prepared by.

Approved by
14/08/22

DEPARTMENT OF EEE & ECE

COURSE MODULE

Course Objectives:

1. To familiarize the student in introducing and exploring LabVIEW software
2. To enable the student on how to approach for solving Engineering problems using simulation tools.
3. To prepare the students to use Lab VIEW in their project works.
4. To provide a foundation in use of this software for real time applications.

MODULE-1
1.Introduction LabVIEW

What Exactly is LabVIEW-What can LabVIEW do for you- How does LabVIEW work-Evolution of LabVIEW- What is DAQ- Communication using SerialPort- LabVIEW addon toolkits- LabVIEW Real Time, FPGA, PDA, and Embedded.

MODULE-2
2: LabVIEW Environment

Front panel, control and indicator- Block Diagram, Nodes, Wires, Data Flow Programming- LabVIEW Projects, Project Explorer window, project Explorer Toolbars- Building Application- Installers- Floating Pallets-

MODULE-3
3: LabVIEW Foundation

Creating VI- Basic Controls- Indicators- Booleans- String- Paths- Decorations- Custom Controls and Indicators- Automatic wire routing- Automatic Wiring – Wiring Complicated Objects- Bad Wires – Wiring Tips- adding Constants- Controls and indicators – Keyboard Shortcuts- Cloning and object.

MODULE-4
4. Programming Execution with Structures

For Loop - The While Loop - Placing Objects inside Objects – Countingthe Loops Shift Registers – Case registers – Dialogs – The Sequence Structures – Timing – Timed Structures – Formula Node – Expression Node.

MODULE-5
5.Embedded combining with LabVIEW

VISA concept - Baud rate Calculation - Measurement and Automation Explorer -Serial Communication with Microcontrollers, Acquiring the real time digital data to the LabVIEW User interface, controlling the LED operations, Acquiring of real time analog sensor values, controlling the Motors
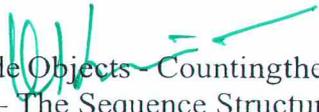
DEPARTMENT OF EEE & ECE

Course Outcomes:

The students will be able to

CO1. Express programming & simulation for engineering problems.

CO2. Find importance of this software for Lab Experimentation.

CO3. Articulate importance of soft wares in research by simulation work.

CO4. Have in-depth knowledge of providing virtual instruments on LabVIEW Environment.

CO5. Write basic mathematical, electrical, electronic problems in LabVIEW, Simulate and Connect programming files with GUI Simulink.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING

DEPARTMENT OF EEE

TCC - Labview

ATTENDANCE SHEET

YEAR/SEM : II / III   AY: 2022-23

S.NO	REG. NO	STUDENT NAME	PRESENT (32 HRS)	ATTENDANCE PERCENTAGE %
1	311821105001	ABDUL MALIK J	32	100
2	311821105002	DILLIGANESH A	32	100
3	311821105004	KARTHICK A	28	87.5
4	311821105005	MOHAMED BASIL S	32	100
5	311821105006	MOHAMED IZZAT. A	32	100
6	311821105008	MOHANRAJ.K	28	87.5
7	311821105010	NAGARAJ. B	28	87.5
8	311821105011	SHARIAR SARFAN S.A	28	87.5
9	311821105012	SRIKARTHIK.V	32	100
10	311821105013	SYED HIFZUL RAHMAN F	32	100
11	311821105014	THAMEEM ANSAARI I.S	32	100
12	311821105015	THIYAGU . A	28	87.5
13	311821105301	AL MUHASIF RIFATH M	28	87.5
14	311821105302	HARIHARAN C	28	87.5
15	311821105304	PRASAD.N	32	100
16	311821105305	SANTHOSH KUMAR V	32	100

FACULTY-IN-CHARGE

HOD Dr. JEHA. J

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

VAC - STUDENTS NAME LIST

Department of Electrical and Electronics Engineering

Academic Year: 2022 - 2023 (ODD)

Name of the Value Added Course : LAB - VIEW

Yr / Sem : II / III		Faculty In-charge :	Mrs.C.Archana	
Location : 106		Duration :	45 Hours	

Sl.No	Name of the Student	Register No.	Status of Qualifying	Sign of Student
1	ABDUL MALIK J	311821105001	Qualified	
2	DILLIGANESH A	311821105002	Qualified	
3	KARTHICK A	311821105004	Qualified	
4	MOHAMED BASIL S	311821105005	Qualified	
5	MOHAMED IZZAT. A	311821105006	Qualified	
6	MOHANRAJ.K (H)	311821105008	Qualified	
7	NAGARAJ. B	311821105010	Qualified	
8	SHARAIR SARFAN S.A	311821105011	Qualified	
9	SRIKARTHIK.V	311821105012	Qualified	
10	SYED HIFSUL RAHMAN F	311821105013	Qualified	
11	THAMEEM ANSAARI I.S	311821105014	Qualified	
12	THIYAGU . A	311821105015	Qualified	
13	SANTHOSH V	311821105305	Qualified	
14	Prasad.N	311821105304	Qualified	
15	AL MUHASIF RIFATH M	311821105301	Qualified	
16	Hariharan C	311821105302	Qualified	

Head-Training

(C. Archana)

Signature of HoD with date

Dr. JEHA-J

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

ISO 9001:2015 Certified by IRQS — NABCB QM 006

CII — AICTE CII SURVEY SILVER RANKING

Performer — ARIIA

INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)

Certificate of Completion

This is to certify that Mr. / ~~Ms~~. _____*Abdul Malik .J*_____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"Lab View"** from 22nd August 2022 to 01st

November 2022 conducted by Lab View Academy - Associate with National

Instruments, Department of Electrical and Electronics Engineering.

Mrs.C.Archana
Course Co - ordinator

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

From

Mr Venkatesh.C,

EEE Department,

MSAJCE,

Chennai.

To

The Principal,

MSAJCE,

Chennai.

Permitted

1908 23

Respected sir,

Sub: Permission for conducting Technology Center Course regarding.

We have planned to conduct Technology Center Course – Simulation of Electric Vehicle

for the students of IV year EEE department in the academic year 2022-2023(odd semester). The

selected course will be useful for our students. Kindly grant us permission to conduct the course.

Thank you

Dr. JEHA.J

Yours faithfully,

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

Venkatesh.C

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

COE - COURSE CONTENT

Department of ELECTRICAL AND ELECTRONICS ENGINEERING

Class : IV/VII Sem

Academic Year: 2022-23

Name of the COE	Simulation of Electric Vehicle	Name of the handling Faculty	Mr.C.Venkatesh

Course Objective
To present a comprehensive overview of Electric and Hybrid Electric Vehicles.
To study about the working of Electric Vehicle and to learn electric vehicle drive systems
To understand the configuration of hybrid vehicle.

Course Outcome
Analysis the configuration and control methods of electric propulsion unit.
Summarize the factors that control battery operational characteristics and the primary mechanisms.
Analysis the transmission characteristics and mathematical models of electric vehicles.
Discuss the energy management strategies used in hybrid and electric vehicles.
Describe the basic fundamentals and working principles of electrical machines.

Lesson Plan for COE				
Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	2-Wheeler disassemble,2-Wheeler front wheel fitting,2-Wheeler rare wheel fitting	T1	4	Software-MATLAB
2	Chassis design for 3-Wheeler,Chassis design for 3-Wheeler	T1	3	Software-MATLAB
3	Chassis material cutting,Chassis welding	T1	3	Software-MATLAB
4	Suspension system fitting to chassis,Differential setup fitting to chassis	T1	3	Software-MATLAB
5	Motor fitting to chassis and differential	T1	3	Software-MATLAB
6	Back side wheels fitting	T1	3	Software-MATLAB
7	Front T shape welding	T2	3	Software-MATLAB
8	Front wheel assemble	T2	3	Software-MATLAB
9	Handle fitting and Throttle fitting to handle	T2	3	Software-MATLAB
10	Battery box welding	T2	3	Software-MATLAB
11	Sheet metal welding	T2	3	Software-MATLAB

12	Lights, indicators assemble	T2	3	Software-MATLAB
13	Battery connections	T2	3	Software-MATLAB
	Quiz / Mini Projects / Model Develpoed if any			
	2 Wheeler E-Vehicle Prepared by students			
	Text / Reference Books			
1	Electrical Vehicle Future of Mobility-Praful Vijay Nandankar-2020			
2	Electric Vehicle Technology Explained-J.Larminie-2012			
	Website / URL References			
1				
2				
3				

Sign. of Course Coordinator

Sign. of HOD with date
Dr.JEHA.J
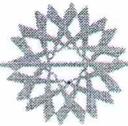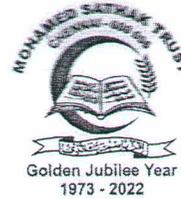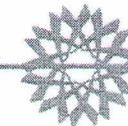
Head-TC

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

COE - COURSE CONTENT

Department of ELECTRICAL AND ELECTRONICS ENGINEERING

Class : IV/VII Sem

Academic Year: 2022-23

Name of the COE	Simulation of Electric Vehicle	Name of the handling Faculty	Mr.C.Venkatesh

Course Objective
To present a comprehensive overview of Electric and Hybrid Electric Vehicles.
To study about the working of Electric Vehicle and to learn electric vehicle drive systems
To understand the configuration of hybrid vehicle.

Course Outcome
Analysis the configuration and control methods of electric propulsion unit.
Summarize the factors that control battery operational characteristics and the primary mechanisms.
Analysis the transmission characteristics and mathematical models of electric vehicles.
Discuss the energy management strategies used in hybrid and electric vehicles.
Describe the basic fundamentals and working principles of electrical machines.

Lesson Plan for COE

Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	2-Wheeler disassemble,2-Wheeler front wheel fitting,2-Wheeler rare wheel fitting	T1	4	Software-MATLAB
2	Chassis design for 3-Wheeler,Chassis design for 3-Wheeler	T1	3	Software-MATLAB
3	Chassis material cutting,Chassis welding	T1	3	Software-MATLAB
4	Suspension system fitting to chassis,Differential setup fitting to chassis	T1	3	Software-MATLAB
5	Motor fitting to chassis and differential	T1	3	Software-MATLAB
6	Back side wheels fitting	T1	3	Software-MATLAB
7	Front T shape welding	T2	3	Software-MATLAB
8	Front wheel assemble	T2	3	Software-MATLAB
9	Handle fitting and Throttle fitting to handle	T2	3	Software-MATLAB
10	Battery box welding	T2	3	Software-MATLAB
11	Sheet metal welding	T2	3	Software-MATLAB

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
34, Rajiv Gandhi Salai (OMR)
Sipcot IT Highway Egattur,
Chennai - 603103.

12	Lights, indicators assemble	T2	3	Software-MATLAB
13	Battery connections	T2	3	Software-MATLAB

Quiz / Mini Projects / Model Develpoed if any
2 Wheeler E-Vehicle Prepared by students

Text / .Reference Books	
1	Electrical Vehicle Future of Mobility-Praful Vijay Nandankar-2020
2	Electric Vehicle Technology Explained-J.Larminie-2012

Website / URL References	
1	
2	
3	

Sign. of Course Coordinator

Sign. of HoD with date
Dr.JEHA.J

Head-TC

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

ISO 9001:2015 Certified by IRQS NABCB QM 006

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
Academic Year - 2022-2023 (ODD SEMESTER)

COE Name: Simulation of Electric Vehicle

Attendance

S.No	Reg No	Name of the Student	Hours Conducted	Hours Present	Percentage
1	311819105001	Fahed.S	39	29	74%
2	311819105002	Mohammed Rijwan.H	39	29	74%
3	311819105003	Sathiyan	39	30	77%
4	311819105005	Stalin K	39	30	77%
5	311819105301	Bhuvanesh S	39	29	74%
6	311819105302	F. Akram Mohiuddin	39	27	69%

Incharge
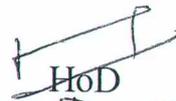
HoD
Dr JEHA.J

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No 34 Rajiv Gandhi Salai (OMR)
Sipcot IT Highway Egattur,
Chennai 603103.

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

COE - STUDENTS NAME LIST

Department of ELECTRICAL AND ELECTRONICS ENGINEERING

Academic Year:2022/23

Name of the Value Added Course : Simulation of Electric Vehicle				
Yr / Sem : IV/VII	Faculty In-charge :		C.Venkatesh	
Location : GF 119	Duration :		30 hrs	
Sl.No	Name of the Student	Register No.	Status of Qualifying	Sign of Student
1	Fahed.S	311819105001	Yes	
2	Mohammed Rijwan.H	311819105002	Yes	
3	Sathiyan	311819105003	Yes	
4	Stalin K	311819105005	Yes	
5	Bhuvanesh S	311819105301	Yes	
6	F. Akram Mohiuddin	311819105302	Yes	
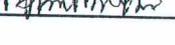
Head-Training

Signature of HoD with date
Dr. JEHA.J

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
Rajiv Gandhi Salai (OMR)
IT Highway Egattur,
ai 603103.

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

Golden Jubilee Year
1973 - 2022

ISO 9001:2015
Certified by IRQS   QM 006
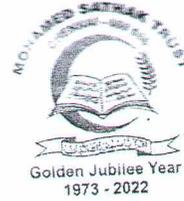
Certificate of Completion

This is to certify that Mr. / ~~Ms.~~ _Fahed.S_ _____ student of

Mohamed Sathak A J College of Engineering, Chennai has successfully

completed the training program on **"Simulation of E-Mobility"** from 10th

August 2022 to 01st November 2022 conducted by E-Mobility Centre,

Department of Electrical and Electronics Engineering.

I. Manju

Mr.C.Venkatesh
Course Co - ordinator
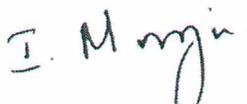
Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot Highway, Egattur,
Chennai - 603103.

From

Mr.Suresh.N,

EEE Department,

MSAJCE,

Chennai.

To

The Principal,

MSAJCE,

Chennai.

Permitted

13 0223

Respected sir,

Sub: Permission for conducting Technology Center Course regarding.

We have planned to conduct Technology Center Course - Fundamentals of MATLAB for the students of II year EEE department in the academic year 2022-2023(even semester). The selected course will be useful for our students. Kindly grant us permission to conduct the course.

Thank you

Yours faithfully,

SURESH. N

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

COURSE CONTENT

Department of Electrical and Electronics Engineering

Class :	II year/IV sem		Academic Year:	2022-23	
Name of the Value Added Course	Fundamentals of MatLab	Name of the handling Faculty		Mr.Suresh.N	

Course Objective
To make the students familiarise with MATLAB
To analysis the given electric circuit applying electrical laws
To make the students design the electronic devices
To make the students design the power electronics converters
To make the students design solar panel

Course Outcome
Analyse the given electric circuits using electrical laws
Design simple electronic devices
Design power electronic convertors
Analyse the given control system
Design the solar panel

Lesson Plan for VAC

Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	Simulation of Kirchoff's voltage law	T1	3	PPT, Simulation
2	Simulation of Kirchoff's current law	T1	3	PPT, Simulation
3	Design of voltage regulator using Zener Diode	T1	3	PPT, Simulation
4	Design of full wave bridge rectifier	T1	3	PPT, Simulation
5	Design of Buck Boost converter	T1	3	PPT, Simulation
6	Simulation of Single phase inverter	T1	3	PPT, Simulation
7	Transfer function, Zero pole gain model and states spaces model of continious times system	T1	3	PPT, Simulation
8	Step response of second order system	T1	3	PPT, Simulation
9	Effect of PID controller on the system	T1	3	PPT, Simulation
10	Design of solar panels	T1	3	PPT, Simulation

Quiz / Mini Projects / Model Develpoed if any
Quiz

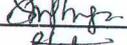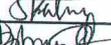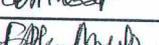| Text / Reference Books	
1	A Guide to MATLAB: For Beginners and Experienced Users by Brian R. Hunt

Website / URL References	
1	https://www.mathworks.com/academia/book

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

Sign. of Course Coordinator

Sign. of HoD with date

Head-TC

FUNDAMENTALS OF MATLAB -SYLLABUS

COURSE OBJECTIVE:

- To make the students familiarize with MATLAB.
- To analyse the give electric circuit applying electrical laws.
- To make the students design the electronic devices.
- To make the students design the power electronic converters
- To analyse the given control system
- To make the students design solar panel.

LIST OF EXPERIMENTS

1. Simulation of Kirchhoff's Voltage Law
2. Simulation of Kirchhoff's Current Law
3. Design of Voltage Regulator using Zener diode
4. Design of Full-Wave Bridge Rectifier
5. Design of Buck-Boost Converter
6. Simulation of Single-phase inverter
7. Transfer function, Zero-pole-gain model and State space model of continuous-time system.
8. Step response of second order system
9. Effect of PID controller on the system
10. Design of Solar panels

COURSE OUTCOMES:

At the end of this course, the students will demonstrate the ability

CO1: To analyse the given electric circuits using electrical laws.

CO2: To design simple electronic devices

CO3: To design power electronic converters

CO4: To analyse the given control system

CO5: To design solar panel

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
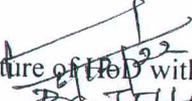Chenai - 603103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING

DEPARTMENT OF EEE
TCC-FUNDAMENTALS OF MATLAB
ATTENDANCE SHEET

AY: 2022-23

YEAR/SEM : II / IV

S.NO	REG. NO	STUDENT NAME	PRESENT (32 HRS)	ATTENDANCE PERCENTAGE %
1	311821105001	ABDUL MALIK J	32	100
2	311821105002	DILLIGANESH A	28	87.5
3	311821105004	KARTHICK A	28	87.5
4	311821105005	MOHAMED BASIL S	32	100
5	311821105006	MOHAMED IZZAT. A	32	100
6	311821105008	MOHANRAJ.K	28	87.5
7	311821105010	NAGARAJ. B	28	87.5
8	311821105011	SHARIAR SARFAN S.A	28	87.5
9	311821105012	SRIKARTHIK.V	32	100
10	311821105013	SYED HIFZUL RAHMAN F	32	100
11	311821105014	THAMEEM ANSAARI I.S	32	100
12	311821105015	THIYAGU . A	28	87.5
13	311821105301	AL MUHASIF RIFATH M	28	87.5
14	311821105302	HARIHARAN C	28	87.5
15	311821105304	PRASAD.N	32	100
16	311821105305	SANTHOSH KUMAR V	32	100

FACULTY-IN-CHARGE

HOD
Dr JEHA-J

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

## TCC - STUDENTS NAME LIST
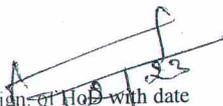
Department of Electrical and Electronics Engineering

Academic Year: 2022-23

Name of the TCC Fundamentals of Matlab				
Yr / Sem : II / IV		Faculty In-charge :	Mr.N.Suresh	
Location : 305 PSS LAB		Duration :	32 Hrs	
Sl.No	Name of the Student	Register No.	Status of Qualifying	Sign of Student
1	ABDUL MALIK J	311821105001	Yes	
2	DILLIGANESH A	311821105002	Yes	
3	KARTHICK A	311821105004	Yes	
4	MOHAMED BASIL S	311821105005	Yes	
5	MOHAMED IZZAT. A	311821105006	Yes	
6	MOHANRAJ.K	311821105008	Yes	
7	NAGARAJ. B	311821105010	Yes	
8	SHARIAR SARFAN S.A	311821105011	Yes	
9	SRIKARTHIK.V	311821105012	Yes	
10	SYED HIFZUL RAHMAN F	311821105013	Yes	
11	THAMEEM ANSAARI I.S	311821105014	Yes	
12	THIYAGU . A	311821105015	Yes	
13	AL MUHASIF RIFATH M	311821105301	Yes	
14	HARIHARAN C	311821105302	Yes	
15	PRASAD.N	311821105304	Yes	
16	SANTHOSH KUMAR V	311821105305	Yes	
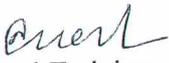
Head-Training

Signature of HoD with date
Dr. JEHA. J

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No. 34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

34, Rajiv Gandhi Salai (OMR), Siruseri IT Park, Chennai - 603 103.

ACCREDITED WITH GRADE A NAAC

MOHAMED SATHAK TRUST 50 CELEBRATING (1973 - 2023)
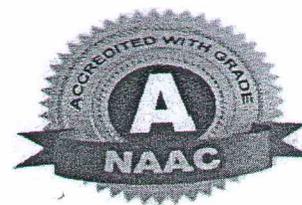
Certificate of Completion

This is to certify that Mr./Ms. _DILLIGANESH A_ of II year EEE has successfully completed the training program on "Fundamentals of MATLAB" from 2nd May 2023 to 10th May 2023 conducted by Mohamed Sathak A.J. College of Engineering, Chennai.

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai(OMR)
Sipcot - IT Highway, Egattur,
Chennai - 603 103.

Mr.N.Suresh
Course Co-ordinator

Dr.A.Kamalaselvan
Head –Technology Centre & Industrial Relations

Dr. K.S. Srinivasan
PRINCIPAL

From

Mrs.Anupreyaa.K,

EEE Department,

MSAJCE,

Chennai.

To

The Principal,

MSAJCE,

Chennai.

Permitted

13.02.23

Respected sir,

Sub: Permission for conducting Technology Center Course regarding.

We have planned to conduct Technology Center Course - Fundamentals of AutoCAD for the students of III year EEE department in the academic year 2022-2023(even semester). The selected course will be useful for our students. Kindly grant us permission to conduct the course.

Thank you

Yours faithfully,

Anupreyaa . K

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

COURSE CONTENT

Department of Electrical and Electronics Engineering

Class :	III year/VI sem		Academic Year:	2022-23

Name of the Value Added Course	Fundamentals of AutoCAD	Name of the handling Faculty	Mrs.Anupreyaa.K

Course Objective
To apply basic CAD concepts to develop and construct accurate 2D geometry .
To create 2D drawings and figures.
To manipulate and edit 2D drawing and figures.

Course Outcome
Understand the AutoCAD environment by creating new drawings, opening existing drawings and saving drawings
Create 2D models of Engineering components
Use the software package for drafting and modelling

Lesson Plan for VAC				
Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	Introduction to CAD	T1	3	PPT, Simulation
2	AutoCAD – BASICS	T1	3	PPT, Simulation
3	Exercise on standard commands	T1	3	PPT, Simulation
4	2 - D Figures Using ACAD	T1	3	PPT, Simulation
5	Exercise on 2D drawing commands	T1	3	PPT, Simulation
6	Exercise on Modify 2D commands	T1	3	PPT, Simulation
7	Exercise on Dimensioning commands	T1	3	PPT, Simulation
8	Exercise on Formatting commands	T1	3	PPT, Simulation
9	Exercise on Insert commands	T1	3	PPT, Simulation
10	Isometric Drawings Using ACAD	T1	3	PPT, Simulation

Quiz / Mini Projects / Model Develpoed if any
Quiz

Text / Reference Books
1	Engineering graphics with Auto CAD- R.B. Choudary/Anuradha Publishers

Website / URL References
1	https://sourcecad.com/courses/autocad-electrical-course/
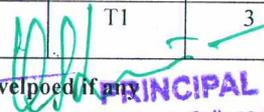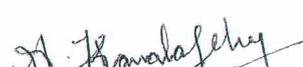
AutoCAD Syllabus

Objectives:

To develop skill to use software to create 2D models.

Syllabus:

1. Introduction to CAD

   CAD- Reason for implementing CAD system- Application of CAD – Benefits – Limitation- CAD software - Learning about the user interface of AutoCAD, such as panels, ribbon, model space - Types and structures of drawings in AutoCAD - Learning basic drawing tools.

2. Draw commands

   Understanding the concept of drawing a toolbar - Learning about line command, polyline command, and circle command - Understanding the concept of other commands - Arc command - Text and rectangle command

3. Cartesian Coordinate System

   Developing different designs - Methods of developing title block Setting up attributes - Set up layers of industry standards - Development of plans and elevations

4. Modify commands

   Use of erase commands - Selection of multiple objects - Move and copy command - The distance method - The two points method - Trim and extend

5. Text command layer blocks

   Understanding the concept of creating, renaming, and removing layers - Specifying the default properties - Sort, filter, and group layer names - Dimension objects - Layers visibility

Reference Books:

1. Engineering graphics with Auto CAD- R.B. Choudary/Anuradha Publishes

Outcomes:

- Ability to use the software packers for drafting and modelling
- Ability to create 2D models of Engineering Components

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING

DEPARTMENT OF EEE

TCC-FUNDAMENTALS OF AutoCAD

ATTENDANCE SHEET

YEAR/SEM : III / VI   AY: 2022-23

S.NO	REG. NO	STUDENT NAME	PRESENT (32 HRS)	ATTENDANCE PERCENTAGE %
1	311820105001	ARSHAD.K	32	100
2	311820105002	ASSLAM.A	28	87.5
3	311820105003	DIVYASRI S	32	100
4	311820105004	HARISHANKAR.V	32	100
5	311820105005	IMRAN R	32	100
6	311820105006	MOHAMED RASITH	28	87.5
7	311820105009	SWETHA MARIA FAUSTINA.S	32	100
8	311820105010	SYED HARRUN	28	87.5
9	311820105011	THOUFIQ AHAMED	28	87.5
10	311820105012	THOWFIQ M	32	100
11	311820105301	JUNAIDEEN.M	28	87.5
12	311820105302	MOHAMED FAZIL. M	28	87.5
13	311820105303	MOHAMED SAMEER. L	32	100
14	311820105304	MOHAMED YAHYA. A	32	100
15	311820105305	MUHAMMED IMRAN. K	28	87.5
16	311820105306	MUZAMMIL HAQ.	32	100
17	311820105307	SHAHUL HAMEED. M.A.K	28	87.5
18	311820105308	SYED AFRIDI. P	30	93.75
19	311820105701	MOHAMED UNIAS	32	100

FACULTY-IN-CHARGE

HOD Dr. JEHA J

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

COE- STUDENTS NAME LIST

Department of Electrical and Electronics Engineering

Academic Year: 2022-2023

Name of the COE Course : Fundamentals of AutoCAD				
Yr / Sem : III/VI		Faculty In-charge :	Mrs.ANUPREYAA.K	
Location : MSAJCE		Duration :	32 hrs	
Sl.No	Name of the Student	Register No.	Status of Qualifying	Sign of Student
1	ARSHAD.K	311820105001	Qualifyed	
2	ASSLAM.A	311820105002	Qualifyed	
3	DIVYASRI S	311820105003	Qualifyed	
4	HARISHANKAR.V	311820105004	Qualifyed	
5	IMRAN R	311820105005	Qualifyed	
6	MOHAMED RASITH	311820105006	Qualifyed	
7	SWETHA MARIA FAUSTINA.S	311820105009	Qualifyed	
8	SYED HARRUN	311820105010	Qualifyed	
9	THOUFIQ AHAMED	311820105011	Qualifyed	
10	THOWFIQ M	311820105012	Qualifyed	
11	JUNAIDEEN.M	311820105301	Qualifyed	
12	MOHAMED FAZIL. M	311820105302	Qualifyed	
13	MOHAMED SAMEER. L	311820105303	Qualifyed	
14	MOHAMED YAHYA. A	311820105304	Qualifyed	
15	MUHAMMED IMRAN. K	311820105305	Qualifyed	
16	MUZAMMIL HAQ.	311820105306	Qualifyed	
17	SHAHUL HAMEED. M.A.K	311820105307	Qualifyed	
18	SYED AFRIDI. P	311820105308	Qualifyed	
19	MOHAMED UNIAS	311820105701	Qualifyed	

Head-Training

Signature of HOD with date
Dr. JEHA. J

Format No.: TLP 20   Rev.No.: 01   Rev.Date: 04.01.21
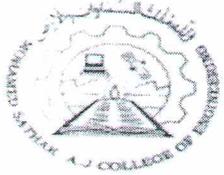
MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

34, Rajiv Gandhi Salai (OMR), Siruseri IT Park, Chennai - 603 103.

Certificate of Completion

This is to certify that Mr./Ms. __ARSHAD.K__ of IIIrd year EEE has successfully completed the training program on "Fundamentals of AutoCAD" from 2nd May 2023 to 10th May 2023 conducted by Mohamed Sathak A.J. College of Engineering, Chennai.

Mrs.K.Anupreyaa
Course Co-ordinator

Dr.A.Kamalaselvan
Head –Technology Centre & Industrial Relations

Dr. K.S. Srinivasan
PRINCIPAL

From   Date: 08-08-2022

    Dr. Prasath S,

    Associate Professor and Head,

    Department of Mechanical Engineering,

    Mohamed Sathak AJ College of Engineering,

    Siruseri (IT Park), Chennai -603 103.

To

    Permitted

    The Principal,

    Mohamed Sathak AJ College of Engineering,

    Siruseri (IT Park), Chennai -603 103.

Respected Sir,

    Sub: Permission for conducting Add on/Value Added course-reg.

    With reference to the above cited subject, we have proposed to conduct Add on/ Value Added Courses for the students of II Year Mechanical department in the academic year 2022-23 (Odd Sem) through offline. The selected course is useful to the students for learning the emerging technical fields. Kindly grant me the permission.

S.No	Title of the course	Year/Branch	Durations
1.	3D Modelling using CATIA	II/Mech	30 Hrs

Thanking You

Yours faithfully

8|8|22

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34. Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING

Chennai-603103

DEPARTMENT OF MECHANICAL ENGINEERING

Ref: MSAJCE/MECH/CIR/03   **Date: 22-08-2022**

CIRCULAR

We the department of Mechanical Engineering, planned to conduct the Add on/Value added course for the below mentioned students in the academic year of 2022-23. Kindly follow the below schedule to complete the course successfully.

S.No	Title of the Course	Year/Branch	Course Co-ordinator
1	3D Modelling using CATIA	II/Mech	Mr. Vinothkumar KK
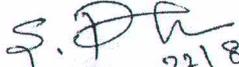
22|8|22

Head of the Department

Head of the Department
Department of Mechinical Engineering
Mohamed Sathak A.J.College of Engineering
Egattur, Chennai - 603 103.

Copy to

Principal Office

Class Coordinator

Dept File

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
Rajiv Gandhi Salai (OMR)
highway Egattur,

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103
STUDENTS NAME LIST
Department of Mechanical Engineering

Academic Year: 2022-2023 Odd Sem

Name of the Value Added Course / COE : 3D Modelling Using CATIA			
Yr / Sem : II / III			
Location : Room No:102		Mr. K.K.Vinothkumar	
		30 Hrs	
Sl.No	Register No.	Name of the Student	Signature
1	311821114001	AADIL T	
2	311821114002	ABDUL KAFFAR	
3	311821114003	DHANUSH ADITHYA S	
4	311821114004	GOKULNATH.D	
5	311821114005	HAJI PUTHU MYDEEN . S	
6	311821114006	HARI M	
7	311821114007	JASWIN KUMAR B	
8	311821114009	MOHAMED ANSARI N	
9	311821114010	MOHAMED FAZID S	
10	311821114011	MOHAMMED SAFREES	
11	311821114012	NARESH.P	
12	311821114014	SANDEEP . S	
13	311821114015	SEYED AHAMED S .T	
14	311821114016	SHAIK IRFAN	
15	311821114017	SHAILESH KUMAR P	
16	311821114018	UDHAYAKUMAR.G	
17	311821114307	SYED MOHAMMED	
18	311821114301	ABDUR RAHMAN J	
19	311821114305	SHAMMER AHAMED	
20	311821114303	MOHAMED ANWAR TA	
21	311821114304	RASOOL MOHAMED	
22	311821114701	MOHAMED SAMEEM P	
23	311821114302	CHANDRU P	
24	311821114306	SWARUPAMALVAN R	

K.K.V
Head-Training

Format No.: TLP 20

Head of the Department
DEPARTMENT OF MECHANICAL
Mohamed Sathak A.J.College of Engineering
Siruseri IT Park, Chennai - 603 103

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

3D Modeling using CATIA - Syllabus

L T P C

2 0 0 2

OBJECTIVES:

To impart knowledge on how to prepare drawings for various mechanical components using any commercially available 3D modeling software's

Unit I Introduction

4

Concept of Parametric Modeling, Feature Based Modeling, User Interface, Mouse operations, File types and Management, drawing profiles. Major user industries of Catia.

Unit II Drafting

4

Creating Drawings, Creating Drawing Sheets, Drawing Views, Creating Drawing Views, Folding Lines, View Plane Definition

Unit II Sketcher

6

Profile toolbar, operation (corner, chamfer, relimitations, transformations, project 3D element), constraints, types of constraints, workbench, sketch tools, tools (Sketch solving status, sketch analysis, output feature), visualization toolbar, user selection filter.

UNIT IV Solid modeling

6

Material Addition and Removal (Pad, Pocket, Shaft, Groove), Sketch and Positioned Sketch, Types of Fillets, Types of Chamfer, Types of Hole, Pattern (Rectangular, Circular, User),Thread/Tap, Datum Features (Plane, Axes, Points),Simple Draft. Frequently used commands for Machined components.

Unit V Creation of 3D Parts

10

Flange Coupling, Plummer Block, Screw Jack, Piston, Stuffing Box

Total: 30 Hours

OUTCOMES:

On completion of the course the student will be able to

- Use the modern engineering tools necessary for engineering practice

- Draw 2D part drawings, sectional views, and assembly drawings as per standards.

- Create 3D Model on any CAD software

References :

1. CATIA V5 Design Fundamentals – Jaecheol Koh, Publisher: ONSIA, Inc. (www.e-onsia.com)
2. CATIA V5 Surface Design - Student Handbook Version 5 Release 19

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103
COURSE CONTENT
Department of Mechanical Engineering

Class : II Year/ III Semester

Academic Year: 2022-23 Odd Sem

Name of the Value Added Course	3D Modelling Using CATIA	Name of the handling Faculty	Mr. K.K.Vinothkumar

Course Objective
• To impart knowledge on how to prepare drawings for various mechanical components using any commercially available 3D modeling software's

Course Outcome
Upon completion of the course,
• Use the modern engineering tools necessary for engineering practice
• Draw 2D part drawings, sectional views, and assembly drawings as per standards.
• Create 3D Model on any CAD software

Lesson Plan for VAC

Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	Introduction to Solid Modeling.	T	1	PPT
2	Concept of Parametric Modeling, Feature Based Modeling, User Interface	T	1	PPT
3	Creating Drawings, Creating Drawing Sheets, Drawing Views, Creating Drawing Views	T	1	PPT
4	Folding Lines, View Plane Definition	T	1	PPT
5	Profile toolbar, operation (corner, chamfer, relimitations, transformations, project 3D element),	T	1	PPT
6	constraints, types of constraints, workbench, sketch tools, tools (Sketch solving status, sketch analysis, output feature), visualization toolbar, user selection filter.	T	2	PPT
7	Material Addition and Removal (Pad, Pocket, Shaft, Groove), Sketch and Positioned Sketch	T	2	PPT
8	Types of Fillets, Types of Chamfer, Types of Hole, Pattern (Rectangular, Circular, User) ,	T	2	PPT
9	Thread/Tap, Datum Features (Plane, Axes, Points),Simple Draft.	T	1	PPT
10	Frequently used commands for Machined components	T	1	PPT
11	Part Drawing	T	2	-
12	Flange Coupling - Part Drawing	T	3	-
13	Plummer Block - Part Drawing	T	3	-
14	Screw Jack - Part Drawing	T	3	-
15	Piston - Part Drawing	T	3	-
16	Stuffing Box - Part Drawing	T	3	-

Quiz / Mini Projects / Model Develpoed if any
Model Drawings Completed

Text / Reference Books	
1	CATIA V5 Design Fundamentals – Jaecheol Koh, Publisher: ONSIA Inc. (www.e-onsia.com)
2	CATIA V5 Surface Design - Student Handbook Version 5 Release 19

Website / URL References	
1	https://nptel.ac.in/courses/112104031

Sign. of Course Coordinator

Sign. of HoD with date

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway, Siruseri,
Chennai - 603103.

Head-TC

Head of the Department
DEPARTMENT OF MECHANICAL
Mohamed Sathak A.J.College of Engineering
Siruseri IT Park, Chennai - 603 103

Format No.: TLP 21

Rev. No.: 1.0

Rev. Date:04.01.21

MOHAMED SATHAK A J COLLEGE OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING
COE CATIA- STUDENTS ATTENDANCE

S.No	Reg.No	Student Name	Aug 22	Aug 29	Sep 05	12	19	Oct 10	17	31	Nov 07	14	21	28	Dec 05	12
1	311820114001	AADIL T	a	/	(	/	(	/	/	/	/	/	/	/	/	/
2	311820114002	ABDUL KAFFAR	a	/	/	/	/	/	/	/	/	/	/	(	/	/
3	311820114003	DHANUSH ADITHYA S	/	/	/	/	/	/	/	a	/	/	/	/	/	/
4	311820114004	GOKULNATH.D	/	/	(	/	/	/	/	/	/	/	/	/	/	/
5	311820114005	HAJI PUTHU MYDEEN . S	a	a	/	/	a	/	/	/	/	/	/	/	/	/
6	311820114006	HARI M	/	/	a	/	/	a	/	/	/	/	/	/	/	/
7	311820114007	JASWIN KUMAR B	a	a		a	/	/	/	/	/	/	/	/	/	/
8	311820114008	MOHAMED ANSARI N	a	/	a	/	/	/	/	/	/	/	/	/	/	/
9	311820114009	MOHAMED FAZID S	/		a	/	/	/	/	/	/	/	/	/	/	/
10	311820114010	MOHAMMED SAFREES	a	a	/	/	(	/	/	/	/	/	/	a	/	/
11	311820114011	NARESH.P	a		a	/	/	/	a	/	/	/	/	/	/	/
12	311820114012	SANDEEP . S	a	a	a	a	(	/	/	/	/	/	/	/	/	/
13	311820114013	SEYED AHAMED S .T	/	/	(	/	/	/	/	/	a	/	/	/	/	/
14	311820114014	SHAIK IRFAN	/	/	/	/	/	/	/	/	/	a	/	/	/	/
15	311820114015	SHAILESH KUMAR P	/	/	/	/	a	/	/	/	/	/	a	/	/	/
16	311820114016	UDHAYAKUMAR.G	a	/	a	/	(	/	/	/	/	/	/	/	/	a
17	311820114017	SYED MOHAMMED	/	/	/	/	/	/	/	/	/	/	/	/	/	(
18	311820114018	ABDUR RAHMAN J	/	/	a	/	/	/	/	/	/	/	/	/	/	/
19	311820114302	SHAMMER AHAMED	/	/	/	/	/	/	/	/	/	/	/	/	/	/
20	311820114303	MOHAMED ANWAR TA	/	/	/	/	/	a	/	/	/	/	/	/	/	/
21	311820114304	RASOOL MOHAMED	/	/	/	/	/	/	/	/	/	/	/	/	/	/
22	311820114305	MOHAMED SAMEEM P	/	/	/	/	a	a	/	/	/	/	/	/	/	/
23	311820114306	CHANDRU P	/	/	/	/	/	/	/	/	/	/	/	/	/	/
24	311820114307	SWARUPAMALVAN R	/	/	/	/	/	/	/	/	/	/	/	/	a	/
		No of Absent	9	4	7	2	3	3	1	01	/	01	01	02	01	0

Sign. of Course Coordinator

K.K.

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

Department of Mechanical Engineering
ATTENDANCE REPORT

2022-23 Odd Sem

	Name of the Value Added Course / COE : 3D Modelling Using CATIA			
Yr / Sem : II / III			Mr. K.K.Vinothkumar	
Location : Room No:102			30 Hrs	
Sl.No	Register No.	Name of the Student	Total Hr	Attended Hr
1	311821114001	AADIL T	30	28
2	311821114002	ABDUL KAFFAR	30	28
3	311821114003	DHANUSH ADITHYA S	30	28
4	311821114004	GOKULNATH.D	30	30
5	311821114005	HAJI PUTHU MYDEEN . S	30	24
6	311821114006	HARI M	30	26
7	311821114007	JASWIN KUMAR B	30	24
8	311821114009	MOHAMED ANSARI N	30	26
9	311821114010	MOHAMED FAZID S	30	28
10	311821114011	MOHAMMED SAFREES	30	24
11	311821114012	NARESH.P	30	24
12	311821114014	SANDEEP . S	30	22
13	311821114015	SEYED AHAMED S .T	30	28
14	311821114016	SHAIK IRFAN	30	28
15	311821114017	SHAILESH KUMAR P	30	26
16	311821114018	UDHAYAKUMAR.G	30	24
17	311821114307	SYED MOHAMMED	30	28
18	311821114301	ABDUR RAHMAN J	30	28
19	311821114305	SHAMMER AHAMED	30	30
20	311821114303	MOHAMED ANWAR TA	30	28
21	311821114304	RASOOL MOHAMED	30	30
22	311821114701	MOHAMED SAMEEM P	30	26
23	311821114302	CHANDRU P	30	30
24	311821114306	SWARUPAMALVAN R	30	28

K.K.V

Head-Training

S. P
12/12/22

Signature of HoD with date
Head of the Department

DEPARTMENT OF MECHANIC..
Mohamed Sathak A.J.College of Engineering
Siruseri IT Park, Chennai - 603 103

Format No.: TLP 20

Rev.Date: 04.01.21

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103
Department of Mechanical Engineering
ASSESSMENT MARKS

Academic Year: 2022-23 Odd Sem

Name of the Value Added Course / COE : 3D Modelling Using CATIA			
Yr / Sem : II / III		Mr. K.K.Vinothkumar	
Location : Room No:102		30 Hrs	
Sl.No	Register No.	Name of the Student	Assessment Marks (50)
1	311821114001	AADIL T	32
2	311821114002	ABDUL KAFFAR	32
3	311821114003	DHANUSH ADITHYA S	45
4	311821114004	GOKULNATH.D	28
5	311821114005	HAJI PUTHU MYDEEN . S	26
6	311821114006	HARI M	32
7	311821114007	JASWIN KUMAR B	26
8	311821114009	MOHAMED ANSARI N	28
9	311821114010	MOHAMED FAZID S	42
10	311821114011	MOHAMMED SAFREES	38
11	311821114012	NARESH.P	35
12	311821114014	SANDEEP . S	30
13	311821114015	SEYED AHAMED S .T	31
14	311821114016	SHAIK IRFAN	30
15	311821114017	SHAILESH KUMAR P	43
16	311821114018	UDHAYAKUMAR.G	35
17	311821114307	SYED MOHAMMED	37
18	311821114301	ABDUR RAHMAN J	36
19	311821114305	SHAMMER AHAMED	30
20	311821114303	MOHAMED ANWAR TA	33
21	311821114304	RASOOL MOHAMED	32
22	311821114701	MOHAMED SAMEEM P	30
23	311821114302	CHANDRU P	35
24	311821114306	SWARUPAMALVAN R	30

K.K.
Head-Training

Signature of HoD with date
Head of the Department
DEPARTMENT OF MECHANICAL
Mohamed Sathak A.J.College of Engineering
Siruseri IT Park, Chennai-603 103.

Format No.: TLP 20

Rev.Date:04.01.21

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103
Department of Mechanical Engineering
Status of Qualifying List

Name of the Value Added Course / COE : 3D Modelling Using CATIA				
Yr / Sem : II / III			Mr. K.K.Vinothkumar	
Location : Room No:102			30 Hrs	
Sl.No	**Name of the Student**	**Register No.**	**Status of Qualifying**	**Student Signature**
1	AADIL T	311821114001	PASS	
2	ABDUL KAFFAR	311821114002	PASS	
3	DHANUSH ADITHYA S	311821114003	PASS	
4	GOKULNATH.D	311821114004	PASS	
5	HAJI PUTHU MYDEEN . S	311821114005	PASS	
6	HARI M	311821114006	PASS	
7	JASWIN KUMAR B	311821114007	PASS	
8	MOHAMED ANSARI N	311821114009	PASS	
9	MOHAMED FAZID S	311821114010	PASS	
10	MOHAMMED SAFREES	311821114011	PASS	
11	NARESH.P	311821114012	PASS	
12	SANDEEP . S	311821114014	PASS	
13	SEYED AHAMED S .T	311821114015	PASS	
14	SHAIK IRFAN	311821114016	PASS	
15	SHAILESH KUMAR P	311821114017	PASS	
16	UDHAYAKUMAR.G	311821114018	PASS	
17	SYED MOHAMMED	311821114307	PASS	
18	ABDUR RAHMAN J	311821114301	PASS	
19	SHAMMER AHAMED	311821114305	PASS	
20	MOHAMED ANWAR TA	311821114303	PASS	
21	RASOOL MOHAMED	311821114304	PASS	
22	MOHAMED SAMEEM P	311821114701	PASS	
23	CHANDRU P	311821114302	PASS	
24	SWARUPAMALVAN R	311821114306	PASS	

K.K.Y
Head-Training

Signature of HoD with date
Head of the Department

Format No.: TLP 20

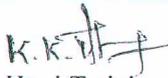Rev.No.: 01   DEPARTMENT OF MECHANICAL
Mohamed Sathak A.J.College of Engineering
Neel IT Park, Chennai - 603 103

Rev.Date: 04.01.21

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

MOHAMED SATHAK TRUST
CHENNAI - 600 006
Golden Jubilee Year
1973 - 2022
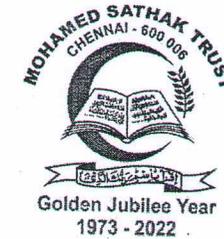
Certificate of Completion

This is to certify that Mr. **Aadil T, II Year Mechanical** student of

Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training

program on **"3D Modelling using CATIA"** from August 2022 to November 2022. Conducted by

Centre for Computer Aided Engineering, Department of Mechanical Engineering.

Mr.K.K.Vinothkumar
Course Co - ordinator

Dr.S.Prasath
Head of the Department

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Siruseri IT Park, OMR, Chennai - 603103.

MOHAMED SATHAK TRUST
CHENNAI - 600 006
Golden Jubilee Year
1973 - 2022

Certificate of Completion

This is to certify that Mr. **DHANUSH ADITHYA S, II Year Mechanical** student of

Mohamed Sathak A J College of Engineering, Chennai has successfully completed the training

program on **"3D Modelling using CATIA"** from August 2022 to November 2022. Conducted by

Centre for Computer Aided Engineering, Department of Mechanical Engineering.

Mr.K.K.Vinothkumar
Course Co - ordinator

Dr.S.Prasath
Head of the Department

Dr. I. Manju
Head - Technology Centre & Industry Relations

Dr. K.S. Srinivasan
Principal

Department of Mechanical Engineering

3D Modelling using CATIA – Question Paper

1. Draw the modelling and assembly of the plumber block with the given dimensions in mm. (50)
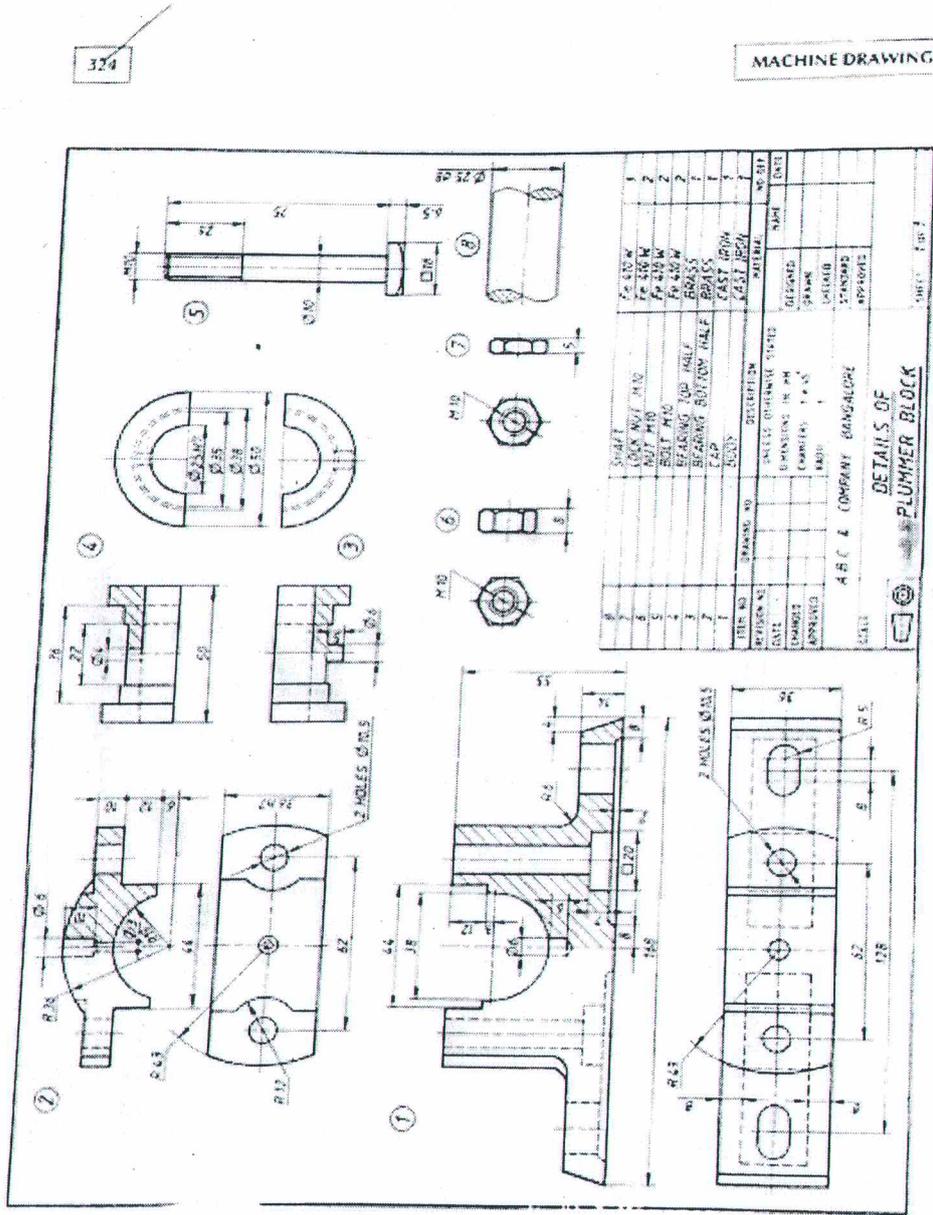
Details of a Plummer Block
Fig. 23.4

311821114003

311821114003

From

Head of the Department

Department of Computer Science and Engineering

MSAJCE

To
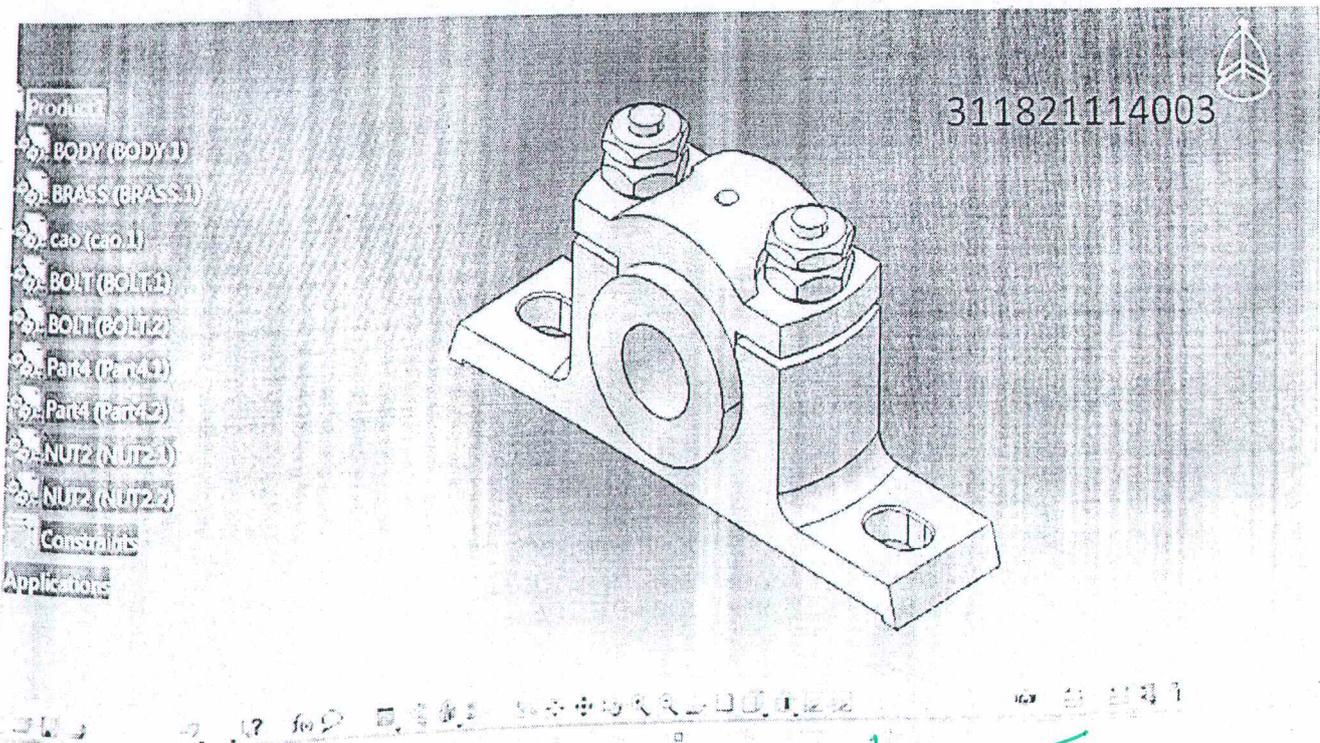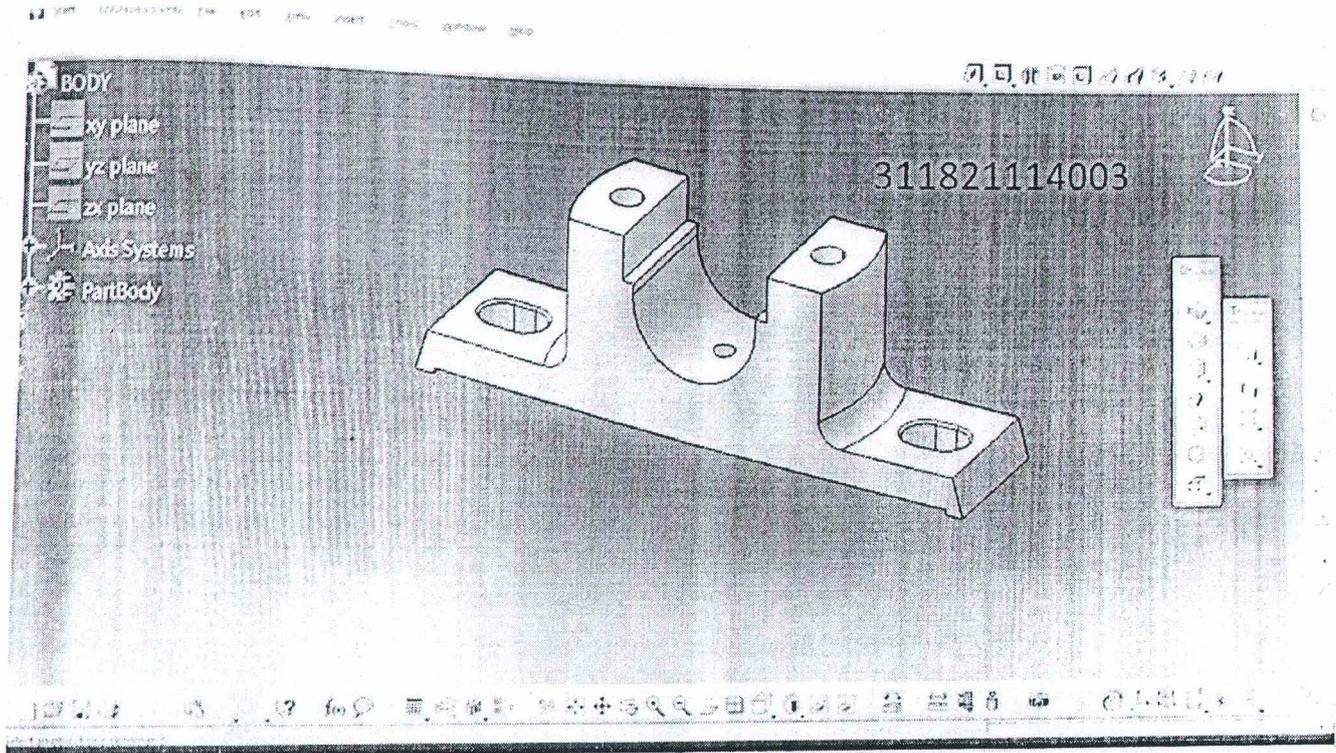
The Principal

MSAJCE

Respected sir,

Sub : Conducting **Value Added Course** – Reg.

We have selected the following subject as Value Added Course for the upcoming semester (ODD SEM) (AY: 2022-2023). So, I kindly request you to approve the same to update in the **Anna University web portal.**

IV – Year CSE (R-2017)

1. IVA018 - Advanced Python and Introduction to Machine Learning

Thanking you
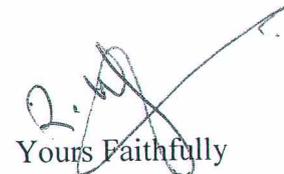
Yours Faithfully

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

CONSOLIDATED REPORT OF VALUE ADDED COURSES OFFERED FOR THE PERIOD OF ODD / EVEN SEM 2022 / 2023

Department of Computer Science and Engineering

S.No	Name of the Course	Year	Sem	Period	No.of students		Faculty Incharge
					Enrolled	Qualified	
1	Advanced Python and Introduction to Machine Learning	IV	VII	12-08-2022 to 14-10-2022	52	52	Sumana T
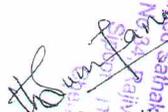
Course Co-ordinator

Format No :TLP 22

Sign. of HoD with date

Rev No : 1 0

Head-Technology Centers

Rev Date : 04.01.21

CSE- VAC

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai- 603103
VAC - STUDENTS NAME LIST
Department of Computer Science and Engineering

Academic Year: 2022-23

Name of the Value Added Course : Advanced Python and Introduction to				
Yr / Sem : IV/VII		Faculty In-	Sumana T	
Location : lab 1& lab2		Duration :	2022-2023	
Sl.No	Name of the Student	Register No.	Status of Qualifying	Sign of Student
1	AFRAR AHAMED I	311819104002	YES	
2	AMJATH M	311819104003	YES	
3	ANUM FARHEEN	311819104004	YES	
4	ARIHARAN T	311819104005	YES	
5	ASHFAQUE AHAMED F	31819104006	YES	
6	ATIF AHMED ANSARI	31819104007	YES	
7	BAZEER AHAMAD V	31819104008	YES	
8	FADAL RAZIN S	31819104009	YES	
9	FARDEEN SHA M	31819104010	YES	
10	FAUWAAZ ASHAL	31819104011	YES	
11	HAMEED JAUFAR HAJA ALADUIN	311819104012	YES	
12	HAMZA ADHNAN SHAKIR	311819104013	YES	
13	HARINE R	31819104015	YES	
14	HUSSAINA PARVEEN J B	31819104016	YES	
15	HYDER ALI M	31819104017	YES	
16	JAVID BASHA J	31819104018	YES	
17	KARTHIKEYAN R	31819104019	YES	
18	MOHAMED AADIL A	311819104020	YES	
19	MOHAMED ABUL FAIZ S	31819104021	YES	
20	MOHAMED AKIL H	31819104022	YES	
21	MOHAMED FAIZ ALI M	31819104023	YES	
22	MOHAMED KHAN D	31819104024	YES	
23	MOHAMED MUSARAF K	31819104025	YES	
24	MUHAMMAD MUNSHID P P	31819104026	YES	
25	MUHAMMED SHIBIL C V	311819104027	YES	
26	MUSTHABUSHIRA S M	311819104028	YES	
27	NAFISA MAHIRA K M	311819104029	YES	
28	NAVANEETHAN P	311819104030	YES	
29	NAVEENA R	311819104031	YES	
30	NITHISH B	311819104032	YES	
31	NOWFAL K	311819104033	YES	
32	PRAKASH T	311819104034	YES	
33	PRATHIKSHA S	311819104035	YES	
34	ROHITH E S	311819104037	YES	
35	SAJITHA N	311819104038	YES	
36	SALAMATH N	311819104039	YES	
37	SALMAN FARISH A J	311819104040	YES	

B.E COMPUTER SCIENCE AND ENGINEERING (REGULATIONS 2017)
VALUE ADDED COURSE

IVA018 Advanced Python and Introduction to Machine Learning	L	T	P	C
	0	0	2	1

Advanced Python and Introduction to Machine Learning Course Curriculum

Objective of this course

- To learn Advance mathematical libraries of python.
- To understand data exploration and data wrangling.
- To perform data visualization ,experting and importing file contents.
- To understand basics of machine learning

Numpy   4 + 2

Creating Arrays-Numpy Data types-Array Mathematics-Array Manipulation-Subsetting,Slicing,Indexing-boolean Indexing-Array Manipulation –Reshaping,Transposingm,Splitting and combining arrays-Inspecting Array and aggregating array.

Pandas   4 + 2

Series- Dataframe-Importing pandas-Dictionary into data frames ,read and write to CSV and Excel,Selecting,Boolean Indexing.Setting,dropping,soring,filling missing values,getting dataframe information and retrieving series,summary and applying lambda function.

Plotting and Visualization   4 + 2

Figures-Subplot-Colors-Markers-Linestyles-Ticks-Labels-Legens-drawing subplots-Lineplot-Barplot-Scatter Plot-Histograms.

Object Oriented Programming   4 + 2

OOPS concepts- creating class-Object-accessing class members-inheritance-abstract class. -

Introduction to Machine Learning   4 + 2

Introduction to Machine Learning – types of learning – supervised – unsupervised – K means Clustering – Hierarchical Clustering.

Mini Project

Pre requisite : Python Programming Total period: 20+10(practice& project)= 30 periods

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

VALUE ADDED COURSE - COURSE CONTENT
IVA018 Advanced Pyhton and Introduction to Machine Learning
Department of Computer Science and Engineering

Class : IV/VII   Academic Year: 2022-23

Name of the Value Added Course	Advanced Python and Introduction to Machine Learning	Name of the handling Faculty	SUMANA T

Course Objective

1. To expose students with the basics of managing the Numpy

2. To explore the various analysis of Pandas

3. To examine the basic of Plotting and Visualization

4. To understand the overview of Object Oriented Programming Concepts

5. To understand the Machine Learning concepts

Course Outcome

1 Explain the different Numpy functions

2 Buid the applion on Pandas functions

3 show the Plotting and Visualization

4 Devlop the Object Oriented Programming

5 judge the Machine Learning concepts

Lesson Plan for VAC

SI. No.	Topic	T / R* Book	Periods Requir	Mode of Teaching
1	Creating Arrays-Numpy Data Types	T1	1	PPT
2	Array Mathematics-Array Manipulation	T1	1	PPT
3	Subsetting, slicing , Indexing-boolean	T1	1	PPT
4	Indexing-Array Manipulation	T1	1	PPT
5	Reshaping,Transposing	T1	1	PPT
6	Splitting and combining arrays	T1	1	PPT
7	Inspecting Array and aggregation array	T1	1	PPT
8	Series-Dataframe	T1	1	PPT
9	Importing pandas- Dictionary into data frames	T1	1	PPT
10	Read and write to CSV and excel	T1	1	PPT
11	Selecting, boolean indexing	T1	1	PPT
12	Setting, dropping,soring,filling missing values	T1	1	PPT
13	Getting dataframe information and retrieving series,	T1	1	PPT
14	Summary and applying lambda function.	T1	1	PPT
15	Figures-Subplot-Colors _ markers	T1	1	PPT
16	Line styles-ticks-Labels	T1	1	PPT
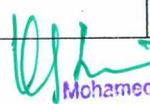
17	legends -drawing subplots	T1	1	PPT
18	Line Plotbarplot -Scatter plot	T1	1	PPT
19	histograms	T1	1	PPT
20	OOPS concepts	T1	1	PPT
21	creating class-Object	T1	1	PPT
22	accessing class members	T1	1	PPT
23	inheritance	T1	1	PPT
24	Abstract class	T1	1	PPT
25	Introduction to Machine Learning	T2	1	PPT
26	Kmeans Clustering	T2	1	PPT
27	Types of learning	T2	1	PPT
28	Supervised	T2	1	PPT
29	unsupervised	T2	1	PPT
30	Hierarchical Clustering.	T2	1	PPT

Quiz / Mini Projects / Model Develpoed if any

Text / Reference Books

1	Python Crash Course: A Hands-On, Project-Based Introduction to Programming (2nd Edition)
2	Kevin Night and Elaine Rich, Nair B., "Artificial Intelligence (SIE)", McGraw Hill- 2008

Website / URL References

1	Peter Jackson, "Introduction to Expert Systems", 3rd Edition, Pearson Education, 2007.
2	Stuart Russel and Peter Norvig "AI – A Modern Approach", 2nd Edition, Pearson Education 2007

Sign. of Course Coordinator

Sign. of HoD with date

Head-TC

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai

VAC - STUDENTS NAME LIST

Department of Computer Science and Engineering

Name of the Value Added Course : Advanced Python and Introduction to Machine Learning

Academic year: 2022 - 2023.

Yr / Sem : IV/VII

Faculty In-charge : Sumana T

Location : lab 1& lab2   Duration : 12.08.2022 to - 14.10.2022.

#	Name	Reg. No.	12/8	16/8	19/8	24/8	9/1	9/5	9/8	9/12	16/9	20/9	22/9	27/9	27/9
1	AFRAR AHAMED I	311819104002	X	X	X	X	X	X	X	X	X	a	X	X	X
2	AMJATH M	311819104003	X	X	X	X	X	X	a	X	X	X	X	X	X
3	ANUM FARHEEN	311819104004	X	X	X	X	X	X	X	a	X	X	X	a	X
4	ARIHARAN T	311819104005	X	X	X	a	X	X	X	X	X	X	X	a	X
5	ASHFAQUE AHAMED F	311819104006	X	X	X	X	X	X	X	X	X	X	X	X	X
6	ATIF AHMED ANSARI	311819104007	X	a	X	X	X	a	X	X	X	a	X	X	X
7	BAZEER AHAMAD V	311819104008	X	X	X	X	X	X	X	X	X	a	X	X	X
8	FADAL RAZIN S	311819104009	a	X	X	X	a	X	X	X	X	X	X	X	X
9	FARDEEN SHA M	311819104010	X	X	a	X	X	X	X	a	X	X	a	X	X
10	FAUWAAZ ASHAL	311819104011	X	X	X	X	X	X	X	X	X	X	X	X	a
11	HAMEED JAUFAR HAJA ALADHIN N H	311819104012	a	X	X	X	X	a	X	X	X	X	X	X	X
12	HAMZA ADHNAN SHAKIR	311819104013	X	X	X	X	X	X	X	X	X	a	X	X	X
13	HARINE R	311819104015	X	X	X	X	X	X	X	a	X	X	X	X	X
14	HUSSAINA PARVEEN J B	311819104016	a	X	X	X	X	X	X	a	X	X	X	a	X
15	HYDER ALI M	311819104017	X	a	X	a	X	X	X	a	X	X	X	X	a

No	Name	Reg No													
16	JAVID BASHA J	311819104018	x	x	x	a	x	a	x	x	x	a	x	x	x
17	KARTHIKEYAN R	311819104019	x	x	x	x	x	x	x	x	x	x	x	x	x
18	MOHAMED AADIL A	311819104020	x	a	x	x	x	x	x	x	x	x	x	x	x
19	MOHAMED ABUL FAIZ S	311819104021	x	x	x	x	x	x	a	a	x	x	x	x	a
20	MOHAMED AKIL H	311819104022	x	x	x	a	a	x	x	x	x	a	x	x	x
21	MOHAMED FAIZ ALI M	311819104023	x	x	x	x	x	x	x	a	x	x	a	x	x
22	MOHAMED KHAN D	311819104024	x	x	x	x	x	x	x	x	x	x	x	x	x
23	MOHAMED MUSARAF K	311819104025	a	x	x	a	x	a	x	x	x	a	x	x	a
24	MUHAMMAD MUNSHID P P	311819104026	x	x	x	x	x	x	x	x	x	x	x	x	x
25	MUHAMMED SHIBIL C V	311819104027	x	x	x	x	x	x	x	x	x	x	x	x	x
26	MUSTHABUSHIRA S M	311819104028	x	a	x	x	x	x	x	a	a	x	x	x	x
27	NAFISA MAHIRA K M	311819104029	x	x	x	x	x	x	x	x	x	x	x	x	x
28	NAVANEETHAN P	311819104030	x	x	x	x	a	x	x	x	x	x	x	x	x
29	NAVEENA R	311819104031	x	x	x	x	x	x	a	x	x	x	x	x	x
30	NITHISH B	311819104032	x	x	x	x	x	x	x	x	x	x	x	a	x
31	NOWFAL K	311819104033	x	a	a	x	a	a	a	x	x	a	x	x	x
32	PRAKASH T	311819104034	x	x	x	x	x	x	x	x	x	x	x	x	x
33	PRATHIKSHA S	311819104035	a	x	x	x	x	x	x	a	x	x	x	a	x
34	ROHITH E S	311819104037	x	x	x	x	x	x	x	x	x	x	x	x	x
35	SAJITHA N	311819104038	x	x	x	a	x	x	x	x	x	x	x	a	a
36	SALAMATH N	311819104039	x	a	x	x	x	x	x	x	a	x	x	x	x
37	SALMAN FARISH A J	311819104040	a	x	a	x	x	x	x	a	x	x	x	x	x
38	SANJAY KHANNA S	311819104041	x	x	x	x	a	x	a	x	a	x	x	x	x
39	SHAAFIA TASNEEM N	311819104042	x	x	x	x	x	x	x	x	x	a	x	a	x
40	SHAHIDHA K	311819104043	x	x	x	x	x	x	x	x	x	x	a	a	x
41	SHALINI S	311819104044	x	x	x	a	x	x	a	x	x	x	x	x	x
42	SUHAIL BASHA A	311819104045	x	x	x	x	x	x	a	x	x	x	x	x	x
43	SUSMITHA V	311819104046	x	x	x	x	x	x	x	x	a	x	x	x	x
44	SYED SUHEAB A	311819104047	x	x	x	x	x	x	x	x	x	x	x	x	x
45	SYED SULAIMAN SAIT H	311819104048	a	a	a	x	a	x	a	a	x	x	a	x	a

46	TAHIR JAMAL	311819104049	a	x	a	x	Y	x	a	x	a	x	a	x	a
47	VANCHINATHAN V	311819104050	x	x	x	x	x	x	x	x	x	x	x	x	x
48	VISHAL V	311819104051	x	x	x	x	a	x	x	x	x	x	x	x	a
49	YASAR ARAFARTH S	311819104052	x	a	x	a	x	a	a	x	x	x	x	x	x
50	AHAMAD BASHA K	311819104301	x	x	x	x	a	x	x	a	x	a	x	x	x
51	BHUVANESHWARI V B	311819104302	a	x	a	x	x	x	x	x	x	x	x	a	a
52	DHANUSH V	311819104303	x	x	x	x	x	a	x	x	x	x	x	x	x
53	MUDDASIR AHMAD M	311819104304	x	a	x	x	x	x	a	x	x	x	a	x	a

HOD SIGN

Head of the Department
DEPARTMENT OF CSE
Mohamed Sathak A.J.College of Engineering
Siruseri IT Park Chennai - 603 103

ANNA UNIVERSITY :: CHENNAI - 600025.
OFFICE OF THE CONTROLLER OF EXAMINATIONS
Provisional Results of Nov. / Dec. Examination,2022.

Page 10/12

Inst.Code/Name : 3118 - MOHAMMED SATHAK A.J.COLLEGE OF ENGINEERING   Semester No. : 07   DATE OF PUBLICATION :DD-MM-YYYY

Branch : 104-B.E. Computer Science and Engineering

Reg. Number	Subject Code -> Stud. Name	CS8079 Grade	CS8080 Grade	CS8711 Grade	CS8791 Grade	CS8792 Grade	HX8001 Grade	IT8761 Grade	IVA018 Grade	MG8591 Grade	OMF751 Grade
311819104002	AFRAR AHAMED I	B+		O	A	B+	O	O	O	B	U
311819104003	AMJATH M	B+		O	A	A	O	O	O	A	B+
311819104004	ANUM FARHEEN	B+		O	A+	A	O	O	O	A+	B+
311819104005	ARIHARAN T	B		O	A+	A	O	O	O	A	B+
311819104006	ASHFAQUE AHAMED F	B		O	A	B+	O	O	O	B+	B+
311819104007	ATIF AHMED ANSARI	B+	B+	O	B+	A	A+	A+	O	B+	B
311819104008	BAZEER AHAMAD V	B		A+	B+	B	O	A	O	B+	B
311819104009	FADAL RAZIN S	B+		O	A	A	O	O	O	A	B+
311819104010	FARDEEN SHA M	B		A+	B	B	O	A+	O	B	B
311819104011	FAUWAAZ ASHAL	B+	A	O	B+	A	O	O	O	B+	A
311819104012	HAMEED JAHUFAR HAJA ALADUIN N H	A		O	A	A	O	O	O	B+	U
311819104013	HAMZA ADHNAN SHAKIR	B	B+	O	B	A	O	O	O	B+	B+
311819104015	HARINE R	A+		O	A+	A+	O	O	O	A	A
311819104016	HUSSAINA PARVEEN J B	A+		O	A	A+	O	O	O	A	A
311819104017	HYDER ALI M	U		A+	B	U	O	A+	O	B	U
311819104018	JAVID BASHA J	B		O	B	B	O	A+	O	B	B
311819104019	KARTHIKEYAN R	B		O	B+	B+	O	A+	O	A	U
311819104020	MOHAMED AADIL A	B		O	U	B	O	O	O	B	U
311819104021	MOHAMED ABUL FAIZ S	A		O	B+	A	O	O	O	U	B
311819104022	MOHAMED AKIL H	B		O	B	B+	A+	O	O	B+	B+
311819104023	MOHAMED FAIZ ALI M	B+		O	B+	A	O	O	O	A	A+
311819104025	MOHAMED MUSARAF K	B		O	B	B	A+	O	O	A	B
311819104026	MUHAMMAD MUNSHID P P	B		A+	B	B+	O	A+	A+	B	B
311819104027	MUHAMMED SHIBIL C V	B		O	B	B+	O	O	A+	B	B
311819104028	MUSTHABUSHIRA S M	A+		O	A+	A+	O	O	O	A+	A
311819104029	NAFISA MAHIRA K M	B+		O	A	A	O	O	O	A	B+
311819104030	NAVANEETHAN P	B		O	B	B+	A+	A	O	A	B
311819104031	NAVEENA R	B+		O	A	A	O	O	O	A	B+
311819104032	NITHISH B	B		O	B	B	O	A+	O	B	B
311819104033	NOWFAL K	B+		O	A	A	O	O	O	B+	B
311819104034	PRAKASH T	B		O	A	B	A+	O	O	B+	B+
311819104035	PRATHIKSHA S	B+		O	B+	U	O	O	O	B	B+
311819104037	ROHITH E S	B		O	A	B+	O	O	O	B+	B+
311819104038	SAJITHA N	A		O	A	A	O	O	O	B	B+

PRINCIPAL
Mohamed Sathak A.J C...
No.34. Rajiv Gandhi ...
Sipcot ... ...

... Inadequate Attendance

ANNA UNIVERSITY :: CHENNAI - 600025.
OFFICE OF THE CONTROLLER OF EXAMINATIONS
Provisional Results of Nov. / Dec. Examination,2022.

Page 11/12

Reg. No.	Name									
311819104039	SALAMATH N	B+								
311819104040	SALMAN FARISH A J	A		O	B+	A	O	B+	O	B+	B+
311819104041	SANJAY KHANNA S	B+		O	A	A+	O	A+	O	B+	B+
311819104042	SHAAFIA TASNEEM N	A		O	A	A	O	O	O	B	B+
311819104043	SHAHIDHA K	A		O	A+	B+	A+	O	O	A	B+
311819104044	SHALINI S	U		O	B+	A	O	O	O	B+	A
311819104045	SUHAIL BASHA A	B		O	B	B+	O	O	O	B	U
311819104046	SUSMITHA V	B		O	A	A	O	O	O	A	B+
311819104047	SYED SUHEAB A	B		O	B+	A	A+	A	O	B+	B+
311819104048	SYED SULAIMAN SAIT H	B		O	B+	B+	O	A+	O	B+	B
311819104049	TAHIR JAMAL	U		A+	B	B	A	A+	O	B+	B
311819104050	VANCHINATHAN V	B		A+	B	B+	A+	B+	A+	B	B
311819104051	VISHAL V	A		O	B+	A	A+	A+	O	B+	B+
311819104052	YASAR ARAFARTH S	B+		O	A	A	O	A+	O	B+	B+
311819104301	AHAMAD BASHA K	B+		A+	A	A	O	A+	O	B+	B
311819104302	BHUVANESHWARI V B	A+		A+	B+	B+	A	A+	O	B+	B+
311819104303	DHANUSH V	A		O	A+	A+	O	O	O	B+	A
311819104304	MUDDASIR AHMAD M	B		O	A	B+	O	O	O	B+	B+
				O	A	B+	O	A+	O	B+	B

W - Withdrawal   I - Inadequate Attendance

WH1 - Withheld for Suspected Malpractice   WH(others) - Withheld for want of Clarification,approval,etc.

PRINCIPAL
Mohamed Sathak A.J. College of
No.34, Rajiv Gandhi Sala
Sipcot - IT Highwa
Chennai - 603

14-03-2023

Anna University - COE

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

VAC - STUDENTS NAME LIST

Department of Computer Science and Engineering

Course : PYTHON PROGRAMMING *Advaned* AND *Introduction to Machine Learning*

Academic Year: 2022-23

Yr / Sem : IV/VII

Faculty In-charge : Sumana T

Duration : 2022-23/odd (Aug 22 — Oct 22)

Sl.No	Name of the Student	Register No.	Sign of Student
1	AFRAR AHAMED I	311819104002	
2	AMJATH M	311819104003	
3	ANUM FARHEEN	311819104004	
4	ARIHARAN T	311819104005	
5	ASHFAQUE AHAMED F	311819104006	
6	ATIF AHMED ANSARI	311819104007	
7	BAZEER AHAMAD V	311819104008	
8	FADAL RAZIN S	311819104009	
9	FARDEEN SHA M	311819104010	
10	FAUWAAZ ASHAL	311819104011	
11	HAMEED JAUFAR HAJA ALADUIN N H	311819104012	
12	HAMZA ADHNAN SHAKIR	311819104013	
13	HARINE R	311819104015	
14	HUSSAINA PARVEEN J B	311819104016	
15	HYDER ALI M	311819104017	
16	JAVID BASHA J	311819104018	
17	KARTHIKEYAN R	311819104019	
18	MOHAMED AADIL A	311819104020	
19	MOHAMED ABUL FAIZ S	311819104021	
20	MOHAMED AKIL H	311819104022	
21	MOHAMED FAIZ ALI M	311819104023	
22	MOHAMED KHAN D	311819104024	
23	MOHAMED MUSARAF K	311819104025	
24	MUHAMMAD MUNSHID P P	311819104026	
25	MUHAMMED SHIBIL C V	311819104027	
26	MUSTHABUSHIRA S M	311819104028	
27	NAFISA MAHIRA K M	311819104029	
28	NAVANEETHAN P	311819104030	
29	NAVEENA R	311819104031	

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
VALUE ADDED COURSE
IVA018 Advanced Python and Introduction to Machine Learning

ASSESSMENT I

Sl.No	Name of the Student	Assessment 1
1	AFRAR AHAMED I	96
2	AMJATH M	87
3	ANUM FARHEEN	90
4	ARIHARAN T	87
5	ASHFAQUE AHAMED F	89
6	ATIF AHMED ANSARI	97
7	BAZEER AHAMAD V	86
8	FADAL RAZIN S	89
9	FARDEEN SHA M	84
10	FAUWAAZ ASHAL	87
11	HAMEED JAUFAR HAJA ALADUIN N H	90
12	HAMZA ADHNAN SHAKIR	95
13	HARINE R	97
14	HUSSAINA PARVEEN J B	98
15	HYDER ALI M	94
16	JAVID BASHA J	93
17	KARTHIKEYAN R	92
18	MOHAMED AADIL A	97
19	MOHAMED ABUL FAIZ S	99
20	MOHAMED AKIL H	94
21	MOHAMED FAIZ ALI M	96
22	MOHAMED KHAN D	97
23	MOHAMED MUSARAF K	94
24	MUHAMMAD MUNSHID P P	96
25	MUHAMMED SHIBIL C V	94
26	MUSTHABUSHIRA S M	97
27	NAFISA MAHIRA K M	97
28	NAVANEETHAN P	95
29	NAVEENA R	99
30	NITHISH B	96

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chennai - 603103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
VALUE ADDED COURSE
IVA018 Advanced Python and Introduction to Machine Learning
ASSESSMENT I

1. **What is a correct syntax to create a NumPy array?**
   a) np.array([1,2,3,4,5])
   b) np.createArray([1,2,3,4,5])
   c) np.object([1,2,3,4,5])
   d) None of the above

2. **What is a correct syntax to check the number of dimensions in an array?**
   a) np.dim
   b) np.ndim()
   c) np.ndim
   d) d)np.dim()

3. **What is a correct syntax to check the data type of an array?**
   a) arr.ntype
   b) arr.datatype
   c) arr.type
   d) arr.dtype

4. **What is a correct method to join two or more arrays?**
   a) array_join()
   b) join()
   c) concatenate()
   d) None of the above

5. **What is a correct method to split arrays?**
   a) np.array([1,2,3,4,5])
   b) np.createArray([1,2,3,4,5])
   c) np.object([1,2,3,4,5])

   d) none of the above

6. **What is a correct syntax to check the number of dimensions in an array?**

   a) np.dim

d) np.dim()

7. **What is a correct syntax to check the data type of an array?**
   a) arr.ntype
   b) arr.datatype
   c) arr.type
   d) arr.dtype

8. **What is a correct method to join two or more arrays?**
   a) array_join()
   b) join()
   c) concatenate()

9. **What is a correct method to split arrays?**
   a) correcthstack()
   b) vstack()
   c) array_split()

10. **Which of the following feature is not provided by the Pandas module?**
   a) Merge and join the data sets
   b) Filter data using the condition
   c) Plot and visualize the data
   d) None of the above

11. **From which of the following files, pandas can read data?**
   a) JSON
   b) Excel
   c) HTML
   d) All the above

12. **(i)Given a dataset named 'data' containing the 5 columns and 10 rows, find the output of the below code?**
   (ii)print(len(data. Columns))
   a) 5
   b) 10
   c) 15
   d) 30

13. **Which of the following commands return the data type of the values in each column in the data frame df?**
   a) print(df.dtype)
   b) print(dtypes(df))
   c) print(df.dtypes)
   d) None of the above

14. **What does the attribute shape return?**
   a) It returns the number of rows and columns respectively in the form of a tuple
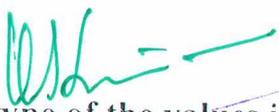
b) It returns the number of columns and rows respectively in the form of a list

c) It returns the number of columns and rows respectively in the form of a list

d) It returns the number of columns and rows respectively in the form of a list

15. By default, number of rows are returned by the head() and tail() function?
   a) 10,5
   b) 5,5
   c) 1,5
   d) 1,1

16. Which of the following can be stored in a dataframe?
   a) a two-dimensional ndarray
   b) lists, dictionaries, or Series
   c) Pandas DataFrame
   d) All the above

17. Which of the following is the correct way to create a data frame?
   a) pandas.DataFrame(data, index, columns, dtype, copy)
   b) pandas.Dataframe(data, index, columns, dtype, copy)
   c) pandas.Dataframe(data, index, columns, dtype, copy)
   d) pandas.dataframe(data, index, columns, dtype)

18. (i)What is the output of the following code?
(ii)print(df.iloc[2:5])
   a) prints the 2nd, 3rd,4th,5th columns of the dataframedf
   b) prints the 2nd, 3rd,4th,5th columns of the dataframedf
   c) prints the 2nd, 3rd,4th rows of the dataframedf
   d) prints the 2nd, 3rd,4th,5th rows of the dataframedf

19. Which of the following changes the data type of a column named clmn in data frame dfto string datatype?
   a) df .clmn .astype(str)
   b) df .clmn .type(str)
   c) str(df .clmn)
   d) None of the above

20. (i)What is the output of the below code?
   (ii)df.loc[df.clmn==10,:]
   a) Return the columns clmn where the value us equal to 10
   b) Return all the columns of the data frame df withe value equals 10
   c) Return all the columns clmn and the first 10 rows
   d) None of the above

21. Which of the following commands remove missing values?
    a) df.dropna()
    b) df.removena
    c) df.removenull()
    d) df.delnull()
22. Which of the following is/are used to get the columns named 'clmn1' and 'clmn3' from the data frame df?
    a) print(df.loc['cl3','cl5'])
    b) print(df.loc[['cl3','cl5']])
    c) print(cls.iloc[['cl3','cl5']])
    d) print(df.iloc['cl3','cl5'])
23. What is a correct method to search for a certain value in an array?
    a) where()
    b) search()
    c) find()
24. What is a correct method to sort the elements of an array?
    a) order()
    b) orderby()
    c) sort()
25. What is a correct syntax to mathematically add the numbers of arr1 to the numbers of arr2?
    a) np.add(arr1, arr2)
    b) sum(arr1, arr2)
    c) np.append(arr1, arr2)
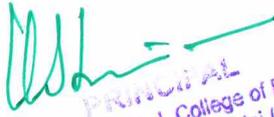
MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
VALUE ADDED COURSE
IVA018 Advanced Python and Introduction to Machine Learning

ASSESSMENT II

Sl.No	Name of the Student	Assessment 2
1	AFRAR AHAMED I	94
2	AMJATH M	97
3	ANUM FARHEEN	90
4	ARIHARAN T	90
5	ASHFAQUE AHAMED F	98
6	ATIF AHMED ANSARI	96
7	BAZEER AHAMAD V	95
8	FADAL RAZIN S	90
9	FARDEEN SHA M	98
10	FAUWAAZ ASHAL	94
11	HAMEED JAUFAR HAJA ALADUIN N H	95
12	HAMZA ADHNAN SHAKIR	95
13	HARINE R	97
14	HUSSAINA PARVEEN J B	98
15	HYDER ALI M	94
16	JAVID BASHA J	97
17	KARTHIKEYAN R	97
18	MOHAMED AADIL A	90
19	MOHAMED ABUL FAIZ S	99
20	MOHAMED AKIL H	93
21	MOHAMED FAIZ ALI M	94
22	MOHAMED KHAN D	95
23	MOHAMED MUSARAF K	96
24	MUHAMMAD MUNSHID P P	96
25	MUHAMMED SHIBIL C V	89
26	MUSTHABUSHIRA S M	97
27	NAFISA MAHIRA K M	90
28	NAVANEETHAN P	96
29	NAVEENA R	98
30	NITHISH B	94

PRINCIPAL
Mohamed Sathak A.J. College of Engineering
No.34, Rajiv Gandhi Salai (OMR)
Sipcot - IT Highway Egattur,
Chenai - 603103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
VALUE ADDED COURSE
IVA018 Advanced Python and Introduction to Machine Learning
ASSESSMENT II

1. The plot method on Series and Data Frame is just a simple wrapper around
_____

    a)gplt.plot()

    b) plt.plot()

    c) plt.plotgraph()

    d) none of the mentioned

    Answer: b

2. Point out the correct combination with regards to kind keyword for graph plotting.

    a)'hist' for histogram

    b) 'box' for boxplot

    c) 'area' for area plots

    d) all of the mentioned

    Answer: d

3. Which of the following value is provided by kind keyword for barplot?

    a)bar

    b) kde

    c) hexbin

    d) none of the mentioned

    Answer : a

4. You can create a scatter plot matrix using the _____ method in pandas.tools.plotting.

    a) sca_matrix

    b) scatter_matrix

    c) DataFrame.plot

    d) all of the mentioned

    Answer: b

5. Which of the following is used to compute the percent change over a given number of periods?

    a)pct_change

    b) percent_change

    c) per_change

    d) none of the mentioned

    Answer: a

6. Point out the correct statement.
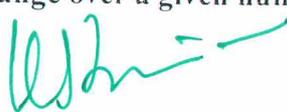
a) Pandas represents timestamps in microsecond resolution

b) Pandas is 100% thread safe

c) For Series and DataFrame objects, var normalizes by N-1 to produce unbiased estimates

d) All of the mentioned

Answer: c

7. **Which of the following object has a method cov to compute covariance between series?**

a) Series

b) DataFrame

c) Panel

d) None of the mentioned

Answer: a

8. **What does the following python program print out?**

1234str1 = "hello"

Str2 = 'there'

Bob= str1+str2print(bob)

a)Hello

b)there

c)hellothere

d)hello there

Answer: c

9. **What does the following python program printout?**

X='40'

Y=int(x)+2

print(y)

a)x2

b)int402

c)402

d)42

Answer: d

10. **Which one of the below is not divide and conquer approach?**

a) Insertion Sort

b) Merge Sort

c) Shell Sort

d) Heap Sort

Answer: b

11. What data structure can be used to check if a syntax has balanced paranthesis ?

   a) queue

   b) tree

   c) list

   d) stack

Answer: d

12. Minimum number of queues required for priority queue implementation?

   a) 5

   b) 4

   c) 3

   d) 2

Answer: d

13. Which of the following searching techniques do not require the data to be in sorted form

   a) Binary Search
   b) Interpolation Search
   c) Linear Search
   d) All of the above

Answer: a

14. Which of the following is example of in-place algorithm?
   a) Bubble Sort
   b) Merge Sort
   c) Insertion Sort
   d) All of the above
   e) Answer: b

15. Which of the below mentioned sorting algorithms are not stable?
   a) Selection Sort
   b) Bubble Sort

c) Merge Sort
d) Insertion Sort
Answer: a

16. **Which of the following uses memorization?**
    a) Greedy approach
    b) Divide and conquer approach
    c) Dynamic programming approach
    d) None of the above!
    Answer: c

17. **All possible spanning trees of graph G**
    a) have same number of edges and vertices.
    b) have same number of edges and but not vertices.
    c) have same number of vertices but not edges.
    d) depends upon algorithm being used.
    Answer: a

18. **If locality is a concern, you can use _____ to traverse the graph.**
    a) Breadth First Search
    b) Depth First Search
    c) Either BFS or DFS
    d) None of the above!
    Answer: b

19. **Among the following option identify the one which is not a type of learning**
    a)Semi unsupervised learning
    b)Supervised learning
    c)Reinforcement learning
    d)Unsupervised learning
    Answer:a

20. **Identify the kind of learning algorithm for "facial identities for facial expressions".**
    a) Prediction
    b) Recognition patterns
    c) Recognizing anomalies
    d) Generating patterns
    Answer: b

21. **What is the application of machine learning methods to a large database called?**
    a) Big data computing
    b) Internet of things
    c) Data mining

d) Artificial intelligence
Answer: c

22. **Identify the model which is trained with data in only a single batch.**
    a) Offline learning
    b) Batch learning
    c) Both A and B
    d) None
    Answer: c

23. **Identify the type of learning in which labeled training data is used.**
    a) Semi unsupervised learning
    b) Supervised learning
    c) Reinforcement learning
    d) Unsupervised learning
    Answer: b

24. **Among the following identify the one in which dimensionality reduction reduces.**
    a) Performance
    b) Entropy
    c) Stochastics
    d) Collinearity
    Answer: d

25. **Which of the following machine learning algorithm is based upon the idea of bagging?**
    a) Decision tree
    b) Random-forest
    c) Classification
    d) Regression
    Answer: b

From   Date: 01-02-2023

    Dr. S. Prasath,

    Associate Professor and Head,

    Department of Mechanical Engineering,

    Mohamed Sathak AJ College of Engineering,

    Siruseri (IT Park), Chennai -603 103.

To

    The Principal,

    Mohamed Sathak AJ College of Engineering,

    Siruseri (IT Park), Chennai -603 103.

Respected Sir,

    Sub: Permission for conducting Add on/Value Added course-reg.

    With reference to the above cited subject, we have proposed to conduct Add on/ Value Added Courses for the students of Mechanical department in the academic year 2022-23(Even Sem) during February month. The selected course is useful to the students for learning the emerging technical fields. Kindly grant me the permission.

S.No	Title of the course	Year/Branch	Durations
1.	CNC Programming and Simulation	II/Mech	30 Hrs

Thanking You

Yours faithfully

MOHAMED SATHAK A J COLLEGE OF ENGINEERING

Chennai-603103

DEPARTMENT OF MECHANICAL ENGINEERING

Ref: MSAJCE/MECH/CIR/012   Date: 06-02-2023

CIRCULAR

We the department of Mechanical Engineering, planned to conduct the Add on/Value added course for the below mentioned students. Kindly follow the below schedule to complete the course successfully.

S.No	Title of the Course	Year/Branch	Date	Course Co-ordinator
1	CNC Programming and Simulation	II/Mech	01-03-2023 to 30-05-2023	Mr. Vinothkumar K K Mr. Sakthivel D

Head of the Department   **Head-TC**

Copy to

Principal Office

Class Coordinator

Dept File

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

VALUE ADDED COURSE / SKILL DEVELOPMENT COURSE

CNC PROGRAMMING AND SIMULATION

L	T	P	C
2	0	0	2

OBJECTIVES:

- To study the features of CNC Modern Machine Tool.
- To expose students to modern control systems (Fanuc, Siemens etc.,)
- To Develop manual part programming for machining components.
- To know the specification of various CNC machines like CNC lathe, CNC milling center.

Unit I: Introduction and history of CNC   6

Introduction to CNC technology -CNC machines & controls. History & development of CNC technology. Conventional Vs. non-conventional machine tool. Numerical control on CNC machine tools. CNC Control and types of CNC control.

Unit II: Part Programming   6

Introduction to coordinate system, Manual part programming, G-Code and M-code concepts, types of tape formats; Tool Length and radius compensation, point to point and contour programming examples.

Unit III: CNC programming   6

Introduction to CNC programming for lathe and milling machines using different machining cycles into the CNC simulator. Procedures Associated with part programming, Cutting process parameter selection, Process planning issues and path planning, G & M Codes, Interpolations, Canned Cycles and Subprograms, Tool compensations.

Unit IV: CNC Programming-Lathe   6

Programming exercise for CNC turning operations. Calculate parameters like speed feed etc. Prepare operation and operation sequence for the lathe operations like turning, step turning and grooving etc. Execute the simple program for geometrical standard parts.

Unit V: CNC Programming-Milling   6

Programming exercise for CNC Milling operations. Calculate parameters like speed feed etc. Prepare operation and operation sequence for the lathe operations like turning, step turning and grooving etc. Execute the simple program for geometrical standard parts.

TOTAL: 30 HOURS

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

OUTCOMES:

Upon completion of the course,

1. Explain the basics of CNC machine tools and various types of Control system.
2. To perform coordinate system and manual part programming.
3. To Perform Turning operations on simple components.
4. To Perform milling operations on simple components.

Text Books:

1. CAD/CAM – M.P.Groover & E.W.Zimmers, Pearson, Eleventh impression,2012
2. Computer Control of Manufacturing Systems - Y. Koren, Tata McGraw Hill, Eight reprint, 2012

Reference Books:

1. Automation, Production Systems and CIM – M.P.Groover , Pearson, Fourth Edition, Second impression, 2017.
2. "CAD / CAM "– PN Rao (PHI) 3rd Edition, 2010.
3. Numerical Control & Computer Aided Manufacturing – T.K.Kundra, P.N.Rao & N.K.Tewari, Tata McGraw-Hill

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

COURSE CONTENT

Department of Mechanical Engineering

Class : II Year/ IV Semester

Academic Year: 2022-23

Name of the Value Added Course	CNC Programming and simulation	Name of the handling Faculty	Mr. Vionthkumar K K Mr. D Sakthivel

Course Objective

The Students will acquire to
- To study the features of CNC Modern Machine Tool.
- To expose students to modern control systems (Fanuc, Siemens etc.,)
- To Develop manual part programming for machining components.
- To know the specification of various CNC machines like CNC lathe, CNC milling center.

Course Outcome

Upon completion of the course,
1. Explain the basics of CNC machine tools and various types of Control system.
2. To perform coordinate system and manual part programming.
3. To Perform Turning operations on simple components.
4. To Perform milling operations on simple components.

Lesson Plan for VAC

Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	Introduction to CNC technology -CNC machines & controls	T	1	PPT & BB
2	History & development of CNC technology	T	1	PPT & BB
3	Conventional Vs. non-conventional machine tool	T	1	PPT & BB
4	Numerical control on CNC machine tools	T	1	PPT & BB
5	CNC Control and types of CNC control.	T	2	PPT & BB
6	Introduction to coordinate system	T	1	PPT & BB
7	Manual part programming	T	2	PPT & BB
8	G-Code and M-code concepts types of tape formats	T	1	PPT & BB
9	Tool Length and radius compensation	T		PPT & BB
10	Point to point and contour programming examples	T	1	PPT & BB
11	Introduction to CNC programming for lathe machines using different machining cycles into the CNC simulator.	T	2	PPT & BB
12	programming for milling machines using different machining cycles into the CNC simulator.	T	1	PPT & BB

13	Procedures Associated with part programming	T	1	PPT & BB
14	Cutting process parameter selection, Process planning issues and path planning	T	1	PPT & BB
15	G & M Codes, Interpolations, Canned Cycles and Subprograms, Tool compensations.	T	1	PPT & BB
16	Programming exercise for CNC turning operations.	T	1	PPT & BB
17	Calculate parameters like speed feed etc.	T	1	PPT & BB
18	Prepare operation and operation sequence for the lathe operations like turning, step turning and grooving etc.	T	2	PPT & BB
19	Execute the simple program for geometrical standard parts.	T	2	PPT & BB
20	Programming exercise for CNC Milling operations	T	1	PPT & BB
21	Calculate parameters like speed feed etc	T	1	PPT & BB
22	Prepare operation and operation sequence for the lathe operations like turning step turning and grooving etc.	T	2	PPT & BB
23	Execute the simple program for geometrical standard parts.	T	2	PPT & BB

Quiz / Mini Projects / Model Develpoed if any

Quiz test conducted

Text / Reference Books

1	CAD/CAM – M.P.Groover & E.W.Zimmers, Pearson, Eleventh impression,2012
2	Computer Control of Manufacturing Systems - Y. Koren, Tata McGraw Hill, Eight reprint, 2012
3	Numerical Control & Computer Aided Manufacturing – T.K.Kundra, P.N.Rao & N.K.Tewari, Tata McGraw-Hill

Website / URL References

1	https://nptel.ac.in/courses/112105211

Sign. of Course Coordinator

Sign. of HoD with date 23|2|2023

Head-TC

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

STUDENTS NAME LIST

Department of Mechanical Engineering

Academic Year: 2022-23

Name of the Value Added Course : CNC PROGRAMMING AND SIMULATION		
Yr / Sem : II/IV	Faculty In-charge :	Mr.Sakthivel D Mr.Vinothkumar K K
Location : 101 Lab	Duration :	30 Hrs

Sl.No	Name of the Student	Register No.
1	AADIL T	311821114001
2	ABDUL KAFFAR. J	311821114002
3	DHANUSH ADITHYA S	311821114003
4	GOKULNATH D	311821114004
5	HAJIPUTHURMYDEEN .S	311821114005
6	HARI.M	311821114006
7	JASWIN KUMAR	311821114007
8	MOHAMED ANSARI.N	311821114009
9	MOHAMED FAZID S	311821114010
10	MOHAMMED SAFREES N	311821114011
11	NARESH.P	311821114012
12	SANDEEP.S	311821114014
13	SYED AHAMED S T	311821114015
14	SHAIK IRFAN K	311821114016
15	SHAILESH KUMAR P	311821114017
16	UDHAYAKUMAR. G	311821114018
17	ABDUR RAHMAN.J	311821114301
18	CHANDRU	311821114302
19	MOHAMED ANWAR T A	311821114303
20	RASOOL MOHAMED .I	311821114304
21	SHAMEER AHMED A	311821114305
22	SWARUPAMALVAN.R	311821114306
23	SYED MOHAMMED	311821114307
24	P.MOHAMED SAMEEM	311821114701

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

Head-Training

Signature of HoD with date

23/2/2023
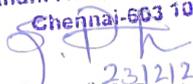
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103
ATTENDANCE
Department of Mechanical Engineering

Academic Year: 2022-23

Name of the Value Added Course : CNC PROGRAMMING AND SIMULATION				
Yr / Sem : II/IV		Faculty In-charge :	Mr.Sakthivel D Mr.Vinothkumar K K	
Location : 101 Lab		Duration :	30 Hrs	

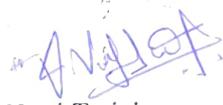| Sl.No	Name of the Student	Register No.	Total Hr	Attended Hr
1	AADIL T	311821114001	30	26
2	ABDUL KAFFAR. J	311821114002	30	28
3	DHANUSH ADITHYA S	311821114003	30	30
4	GOKULNATH D	311821114004	30	28
5	HAJIPUTHURMYDEEN .S	311821114005	30	26
6	HARI.M	311821114006	30	26
7	JASWIN KUMAR	311821114007	30	24
8	MOHAMED ANSARI.N	311821114009	30	28
9	MOHAMED FAZID S	311821114010	30	30
10	MOHAMMED SAFREES N	311821114011	30	24
11	NARESH.P	311821114012	30	30
12	SANDEEP.S	311821114014	30	30
13	SYED AHAMED S T	311821114015	30	29
14	SHAIK IRFAN K	311821114016	30	30
15	SHAILESH KUMAR P	311821114017	30	30
16	UDHAYAKUMAR. G	311821114018	30	26
17	ABDUR RAHMAN.J	311821114301	30	28
18	CHANDRU	311821114302	30	24
19	MOHAMED ANWAR T A	311821114303	30	30
20	RASOOL MOHAMED .I	311821114304	30	28
21	SHAMEER AHMED A	311821114305	30	28
22	SWARUPAMALVAN.R	311821114306	30	30
23	SYED MOHAMMED	311821114307	30	30
24	P.MOHAMED SAMEEM	311821114701	30	26

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

Head-Training

Signature of HoD with date

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

ASSESSMENT MARKS

Department of Mechanical Engineering

Academic Year: 2022-23

SI.No	Name of the Student	Register No.	Assessment Marks (30)
Name of the Value Added Course : CNC PROGRAMMING AND SIMULATION
\multicolumn{2}{|l|}{Yr / Sem : II/IV}	Faculty In-charge :	Mr.Sakthivel D Mr.Vinothkumar K K
\multicolumn{2}{|l|}{Location : 101 Lab}	Duration :	30 Hrs
1	AADIL T	311821114001	27
2	ABDUL KAFFAR. J	311821114002	20
3	DHANUSH ADITHYA S	311821114003	29
4	GOKULNATH D	311821114004	20
5	HAJIPUTHURMYDEEN .S	311821114005	21
6	HARI.M	311821114006	23
7	JASWIN KUMAR	311821114007	22
8	MOHAMED ANSARI.N	311821114009	23
9	MOHAMED FAZID S	311821114010	28
10	MOHAMMED SAFREES N	311821114011	20
11	NARESH.P	311821114012	25
12	SANDEEP.S	311821114014	24
13	SYED AHAMED S T	311821114015	25
14	SHAIK IRFAN K	311821114016	28
15	SHAILESH KUMAR P	311821114017	27
16	UDHAYAKUMAR. G	311821114018	25
17	ABDUR RAHMAN.J	311821114301	26
18	CHANDRU	311821114302	25
19	MOHAMED ANWAR T A	311821114303	24
20	RASOOL MOHAMED .I	311821114304	27
21	SHAMEER AHMED A	311821114305	21
22	SWARUPAMALVAN.R	311821114306	27
23	SYED MOHAMMED	311821114307	21
24	P.MOHAMED SAMEEM	311821114701	20

Head Training

Signature of HoD with date 26/5/23

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING, Chennai - 603103

Status of Qualifying List

Department of Mechanical Engineering

Academic Year: 2022-23

Name of the Value Added Course : CNC PROGRAMMING AND SIMULATION				
Yr / Sem : II/IV		Faculty In-charge :	Mr.Sakthivel D Mr.Vinothkumar K K	
Location : 101 Lab		Duration :	30 Hrs	
Sl.No	Name of the Student	Register No.	Status of Qualifying	Sign of Student
1	AADIL T	311821114001	PASS	
2	ABDUL KAFFAR. J	311821114002	PASS	
3	DHANUSH ADITHYA S	311821114003	PASS	
4	GOKULNATH D	311821114004	PASS	
5	HAJIPUTHURMYDEEN .S	311821114005	PASS	
6	HARI.M	311821114006	PASS	
7	JASWIN KUMAR	311821114007	PASS	
8	MOHAMED ANSARI.N	311821114009	PASS	
9	MOHAMED FAZID S	311821114010	PASS	
10	MOHAMMED SAFREES N	311821114011	PASS	
11	NARESH.P	311821114012	PASS	
12	SANDEEP.S	311821114014	PASS	
13	SYED AHAMED S T	311821114015	PASS	
14	SHAIK IRFAN K	311821114016	PASS	
15	SHAILESH KUMAR P	311821114017	PASS	
16	UDHAYAKUMAR. G	311821114018	PASS	
17	ABDUR RAHMAN.J	311821114301	PASS	
18	CHANDRU	311821114302	PASS	
19	MOHAMED ANWAR T A	311821114303	PASS	
20	RASOOL MOHAMED .I	311821114304	PASS	
21	SHAMEER AHMED A	311821114305	PASS	
22	SWARUPAMALVAN.R	311821114306	PASS	
23	SYED MOHAMMED	311821114307	PASS	
24	P.MOHAMED SAMEEM	311821114701	PASS	

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

TECHNOLOGY CENTRE

DEPARTMENT OF MECHANICAL ENGINEERING

CNC PROGRAMMING AND SIMULATION

ACADEMIC YEAR 2022-2023

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Estd - 2001

CERTIFICATE OF APPRECIATION

This is to certify that

AADIL T   II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from   March to   May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

COURSE COORDINATOR   HOD - MECH   HEAD-TC & IR   PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

CERTIFICATE OF APPRECIATION

This is to certify that

ABDUL KAFFAR. J   II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

COURSE COORDINATOR

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103
HOD MECH

HEAD-TC & IR

PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

ISO 9001:2015 Certified by IRQS | NABCB QM 006 | AICTE CII SURVEY SILVER RANKING | Performer BAND ARIIA | INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)

CERTIFICATE OF APPRECIATION

This is to certify that

DHANUSH ADITHYA S II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103

COURSE COORDINATOR   HOD - MECH   HEAD-TC & IR   PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

ISO 9001:2015 Certified by IRQS | NABCB QM 006 | CII AICTE CII SURVEY SILVER RANKING | Performer BAND ARIIA | INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)

CERTIFICATE OF APPRECIATION

This is to certify that

GOKULNATH D   II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from   March to   May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

D. Sakthi

COURSE COORDINATOR

_S. Pa_

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103
HOD MECH

_I. M_

HEAD-TC & IR

PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

ISO 9001:2015 Certified by IRQS | NABCB QM 006 | CII AICTE CII SURVEY SILVER RANKING | Performer BAND ARIIA | INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)

CERTIFICATE OF APPRECIATION

This is to certify that

HAJIPUTHURMYDEEN .S II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103

COURSE COORDINATOR   HOD MECH   HEAD-TC & IR   PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

ISO 9001:2015 Certified by IRQS | NABCB QM 006 | AICTE CII SURVEY SILVER RANKING | Performer BAND ARIIA | INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)

CERTIFICATE OF APPRECIATION

This is to certify that

HARI.M   II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103

COURSE COORDINATOR   HOD - MECH   HEAD-TC & IR   PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

ISO 9001:2015 Certified by IRQS | NABCB QM 006 | CII AICTE CII SURVEY SILVER RANKING | Performer ARIIA | INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)

CERTIFICATE OF APPRECIATION

This is to certify that

JASWIN KUMAR   II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103

COURSE COORDINATOR   HOD MECH   HEAD-TC & IR   PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

CERTIFICATE OF APPRECIATION

This is to certify that

MOHAMED ANSARI.N II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from   March to   May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

COURSE COORDINATOR

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103
HOD- MECH

HEAD-TC & IR

PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

CERTIFICATE OF APPRECIATION

This is to certify that

MOHAMED FAZID S II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

COURSE COORDINATOR

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103
HOD MECH

HEAD-TC & IR

PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

CERTIFICATE OF APPRECIATION

This is to certify that

MOHAMMED SAFREES N II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

COURSE COORDINATOR

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103
HOD MECH

HEAD-TC & IR

PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

ISO 9001:2015 Certified by IRQS | QM 006 NABCB | AICTE CII SURVEY SILVER RANKING | Performer BAND ARIIA | INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)
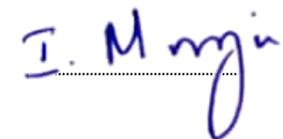
CERTIFICATE OF APPRECIATION

This is to certify that

NARESH.P   II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103

COURSE COORDINATOR   HOD- MECH   HEAD-TC & IR   PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

CERTIFICATE OF APPRECIATION

This is to certify that

SANDEEP.S   II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103

COURSE COORDINATOR   HOD- MECH   HEAD-TC & IR   PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

ISO 9001:2015 Certified by IRQS | NABCB QM 006 | CII AICTE CII SURVEY SILVER RANKING | Performer BAND ARIIA | INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)

CERTIFICATE OF APPRECIATION

This is to certify that

SYED AHAMED S T   II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from   March to   May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103

COURSE COORDINATOR   HOD - MECH   HEAD-TC & IR   PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

ISO 9001:2015 Certified by IRQS | NABCB QM 006 | AICTE CII SURVEY SILVER RANKING | Performer ARIIA | INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)

CERTIFICATE OF APPRECIATION

This is to certify that

SHAIK IRFAN K   II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103

COURSE COORDINATOR   HOD-MECH   HEAD-TC & IR   PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

CERTIFICATE OF APPRECIATION

This is to certify that

SHAILESH KUMAR P II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103

COURSE COORDINATOR   HOD-MECH   HEAD-TC & IR   PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

ISO 9001:2015 Certified by IRQS | NABCB QM 006 | AICTE CII SURVEY SILVER RANKING | Performer BAND ARIIA | INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)

CERTIFICATE OF APPRECIATION

This is to certify that

UDHAYAKUMAR. G II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from   March to   May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103

COURSE COORDINATOR　　　HOD- MECH　　　HEAD-TC & IR　　　PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

ISO 9001:2015 Certified by IRQS | NABCB QM 006 | CII AICTE CII SURVEY SILVER RANKING | Performer BAND ARIIA | INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)

CERTIFICATE OF APPRECIATION

This is to certify that

ABDUR RAHMAN.J   II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from   March to   May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

COURSE COORDINATOR

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103
HOD- MECH

HEAD-TC & IR

PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

ISO 9001:2015 Certified by IRQS | QM 006 NABCB | AICTE CII SURVEY SILVER RANKING | Performer BAND ARIIA | INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)

CERTIFICATE OF APPRECIATION

This is to certify that

CHANDRU   II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103

COURSE COORDINATOR   HOD- MECH   HEAD-TC & IR   PRINCIPAL

ISO 9001:2015 Certified by IRQS | NABCB QM 006 | AICTE CII SURVEY SILVER RANKING | Performer BAND ARIIA | INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)

CERTIFICATE OF APPRECIATION

This is to certify that

MOHAMED ANWAR T A II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

COURSE COORDINATOR

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103
HOD MECH

HEAD-TC & IR

PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

CERTIFICATE OF APPRECIATION

This is to certify that

RASOOL MOHAMED .I II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103

COURSE COORDINATOR   HOD MECH   HEAD-TC & IR   PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING
Estd - 2001

CERTIFICATE OF APPRECIATION

This is to certify that

SHAMEER AHMED A   II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from   March to   May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

COURSE COORDINATOR

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103
HOD MECH

HEAD-TC & IR

PRINCIPAL

MOHAMED SATHAK

A.J. COLLEGE OF ENGINEERING

Estd - 2001

ISO 9001:2015 Certified by IRQS | NABCB QM 006 | CII AICTE CII SURVEY SILVER RANKING | Performer ARIIA | INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)

CERTIFICATE OF APPRECIATION

This is to certify that

SWARUPAMALVAN.R II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

COURSE COORDINATOR

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.
HOD MECH

HEAD-TC & IR

PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

ISO 9001:2015 Certified by IRQS | NABCB QM 006 | CII AICTE CII SURVEY SILVER RANKING | Performer BAND ARIIA | INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)

CERTIFICATE OF APPRECIATION

This is to certify that

SYED MOHAMMED II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103

COURSE COORDINATOR   HOD MECH   HEAD-TC & IR   PRINCIPAL

MOHAMED SATHAK
A.J. COLLEGE OF ENGINEERING

Estd - 2001

ISO 9001:2015 Certified by IRQS | NABCB QM 006 | CII AICTE CII SURVEY SILVER RANKING | Performer ARIIA | INSTITUTION'S INNOVATION COUNCIL (Ministry of Education Initiative)

CERTIFICATE OF APPRECIATION

This is to certify that

P.MOHAMED SAMEEM II Year -Mechanical

has successfully completed the Skill Development Course on "**CNC Programming and Simulation**" from March to May 2023 under Centre for CAM, Department of Mechanical Engineering, Mohamed Sathak A J College of Engineering, Chennai.

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103

COURSE COORDINATOR   HOD MECH   HEAD-TC & IR   PRINCIPAL