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Add on/Certificate programs

Academic Year 2020 – 2021

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Value Added Course

2020-2021

S.No	Name of Add on / Certificate programs offered	Course Code(if any) Collaboration Details	Year of offering	Number of students completing the course this year	Type of Add-on Course
1	3D Infra Structural Modelling	CVA034	2020-2021	18	One Credit VAC(Approved By Anna University)
2	Advanced Python and Introduction to Machine Learning	IVA018	2020-2021	41	One Credit VAC(Approved By Anna University)
3	IOT using Arduino	IVA067	2020-2021	8	One Credit VAC(Approved By Anna University)
4	Programming Foundation with Javascript, HTL and CSS	-	2020-2021	15	Self Framed Course
5	Electric Vehicle	EVA033	2020-2021	5	One Credit VAC(Approved By Anna University)
6	LabView	-	2020-2021	10	Self Framed Course
7	Introduction to Multi Body Dynamics	MVA022	2020-2021	44	One Credit VAC(Approved By Anna University)
8	Fusion 360 Modeling and Assembly	-	2020-2021	26	Self Framed Course
9	PC Hardware Networking & Troubleshooting	-	2020-2021	149	Self Framed Course

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Agenda:
To review and approve the syllabus and assessment procedure of Add on courses / Value added courses.
Venue: Board Room, MSAJCE
Date: 24.8.20
Time: 2.00p.m – 4.00p.m

Members Present:

S. No	Name	Designation	Category	Signature
1	Dr.K.S.Srinivasan	Principal, MSAJCE	Chairman	
2	Dr.K.Malathi	Prof/ Anna University	Advisor	← AB →
3	Dr.N.Parthiban	Prof / SRMIST	Advisor	
4	Dr N.Kulasekaran	Valeo India Pvt Ltd	Advisor	
5	Mr.Mohamed Thahir	ZOHO Corp	Advisor	
6	Dr.S.Thenmozhi	Prof/ St.Joseph CE	Advisor	
7	Dr.E.Dhiravidachelvi	Head – Academics	Member	
8	Dr.I.Manju	Head –Tech IR	Member	
9	Dr.R.Senthil Kumar	Head – Admin	Member	
10	Dr.B.Janarthanan	Head – Research	Member	
11	Dr S.Prasath	Head –T&P	Member	
12	Dr.G.Ramesh	Head-Mech	Member	
13	Dr.A.Balakrishnan	Head- S&H	Member	
14	Ms.M.Premalatha	Head -CSE	Member	
15	Dr.P.Sathees kumar	Prof /Civil	Member	
16	Mr.M.Kamarajan	Head -ECE	Member	
17	Mr.M.B.Shanmugarajan	Head -Civil	Member	
18	Mr.C.Venkatesh	Head -EEE	Member	
19	Mr .D.Weslin	Head -IT	Member	

Points discussed:

- The following courses shall be conducted as Add on courses / Value added courses during Odd/Even Semester of Academic year 2020-21 for the benefit of the students.
- The courses were designed and developed after receiving recommendations from Industry experts, Alumni and Faculty.
- The syllabus, assessment procedure was reviewed and approved by the Academic advisory council.

S.No	Name of the Course
1	3D Infrastructural Modelling
2	Fusion 360 Assembly Modelling

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3	Introduction of Multi- Body Dynamics
4	Lab View
5	PC Hardware Networking & Troubleshooting
6	Robotic Process Automation (RPA)
7	Training on CATIA- SOLID Model
8	Creo-Harness Design, GD&T- Industrial Standard
9	Staad Pro
10	IOT and its Applications
11	PC Hardware and Networking

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APPLICATION FOR CONDUCTING VALUE ADDED COURSES

1. Name of the Department	:	Computer Science and Engineering & Information Technology
2. UG programme	:	B.E
3. Details of the Value-Added Courses:		
a. Name of the Value Added Courses	:	IVA018 Advanced Python and Introduction to Machine Learning
b. Type of Value-Added Courses	:	(Lab integrated theory)
c. Short Description	:	Enclosure 1 enclosed - ~~YES~~ / NO
d. Syllabus including Reference	:	Enclosure 2 enclosed - YES / ~~NO~~
4. Target audience:		
Semester (indicate if more than one)	:	VIIIth Semester only
Others		
5. Details of Faculty handling the course:		
a. Name of the Faculty handling the Value Added Course	:	Mrs.Sankari
b. Details including designation and expertise	:	Enclosure 3 enclosed - YES / NO
c. Contact details		
Email ID	:	vpsankarim@gmail.com
Phone No	:	+91 9940109992
6. **Tentative Time Table** including dates of internal assessments	:	Enclosure 4 enclosed - YES / NO
7. Number of students opting for the course	:	41
8. Department Consultative Committee - Minutes	:	Enclosure 5 enclosed - YES / ~~NO~~
9. Name and Designation of the Coordinator	:	Mr. S.Senthilpandi, Assistant Professor, Department of Information Technology, Mohamed Sathak A J College of Engineering.

13/3/24

13/3/24

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING - 603 103

Head of the Department
(with date & seal)

DEPARTMENT OF CSE
Mohamed Sathak A J College of Engineering
Siruseri IT Park, Chennai - 603 103

13.3.2024

Head of the Institution
(with date & seal)

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

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EGATTUR 603 103.
KANCHIPURAM DT.

Director, Academic Courses

Additional Controller of Examinations

CENTRE FOR ACADEMIC COURSES
ANNA UNIVERSITY
CHENNAI - 600 025
Fax / Dir 22352272

Dr. S.HOSIMIN THILAGAR
DIRECTOR
Letter No 0387/AU/VA/CAC/FICE/2021

17.03.2021

To
The Controller of Examinations
Anna University
Chennai - 25.

Sir,

Sub: A.U. - CAC - Affiliated Institutions - Value Added Courses - Reg.
Ref : (i) Letter No. MSAJCE/PO/021/2020-21, dated:09.02.2021.
(ii) Mail received from the college, Mohamed Sathak A.J. College of Engineering, dated:13.03.2021 and 14.03.2021.

******

With reference to the letter cited above, course code is allotted for the Value Added Course as mentioned below:

Sl. NO.	CODE ALLOTTED	TITLE	CREDITS			
			L	T	P	C
1.	IVA067	IOT using Arduino	1	0	2	2
2.	IVA018	Advanced Python and Introduction to Machine Learning	0	0	2	1

This is for your kind information and necessary action at your end.

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING CHENNAI - 603 103

Yours faithfully,

17/3

DIRECTOR

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
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17/3

Copy to:

1. The Principal, Mohamed Sathak A.J. College of Engineering, Siruseri, Chennai – 603 103.
2. The Chairperson, Faculty of Information and Communication Engineering, A.U., Chennai -25.
3. The Stock File.

To Dr. Manju
Head ITC for n/c

DEPARTMENT OF COMPUTER SCIENCE ANDENGINEERING(R 2017)

VALUE ADDED COURSE

IVA018 Advanced Python and Introduction to Machine Learning

TIMETABLE

The value-added course can be conducted in the summer vacation for 10 consecutive days covering 30 hours to earn 2 credits by the students.

Day (12.30 PM to 3.30 PM)	Topic	Assessment
Day 1	Unit I	-
Day 2	Unit I &II	-
Day 3	Unit II	-
Day 4	Unit II&III	-
Day 5	Unit III	Assessment Test – I
Day 6	Unit III&IV	-
Day 7	Unit IV	-
Day 8	Unit IV&V	-
Day 9	Unit V& Lab Programs	-
Day 10	Lab Programs	Assessment Test – II

ASSESSMENT I& II PATTERN

Test Duration: 1 Hour

QUESTION PAPER PATTERN:

Part A (50*1 =50 Marks) - Objective Type Questions

Part B (25*2 = 50 Marks) -Analytic & Programming Type Objective Questions

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AWARD OF GRADES:

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING * CHENNAI - 603 103 *

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

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Assessment Procedure for Add-on Courses / value Added Courses

1. Two Assessments shall be conducted during the semester by the course co-ordinator concerned.
2. A committee consisting of the Head of the Department, staff handling the course and a senior Faculty member nominated by the Head of the Institution shall monitor the evaluation process
3. Performance of students in each Add on course of study shall be evaluated based on
    - Midterm internal assessment and
    - Assessment at the end of the course.
4. Each Add on course, shall be evaluated for a maximum of 100 marks.
5. The weightage for questions may be as follows.
    - Part A: Objective Type Questions
    - Part B: Design/Prototype development/Mini projects/etc.
6. The question paper may be set with
    - 40% of questions to test the memory skills & the capacity to understand concepts.
    - 60% % of questions to the ability to apply, create, analyse and evaluate concepts.

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VALUE ADDED COURSE - COURSE CONTENT

Department of Information Technology

Class :IV/VII			Academic Year: 2021-22
Name of the Value	Advanced Python and Introduction to Machine Learning	Name of the handling	G Rama Mohan Reddy

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

Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	Creating Arrays-Numpy Data Types	T1	2	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	2	PPT
8	Series-Dataframe	T1	2	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	2	PPT
15	Figures-Subplot-Colors _ markers	T1	2	PPT
16	Line styles-ticks-Labels	T1	2	PPT
17	legends -drawing subplots	T1	2	PPT
18	Line Plotbarplot -Scatter plot	T1	2	PPT
19	histograms	T1	3	PPT
20	OOPS concepts	T1	2	PPT
21	creating class-Object	T1	2	PPT
22	accessing class members	T1	2	PPT
23		T1	3	PPT
24	Introduction to Machine Learning	T2	2	PPT
25	types of learning -supervised -unsupervised	T2	2	PPT
26	Kmeans Clustering	T2	2	PPT
27		T2	3	PPT

Quiz / Mini Projects / Model Develpoed if any

Quiz

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
3.

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
3.

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Sign. of Course Coordinator

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING - CHENNAI - 603 103

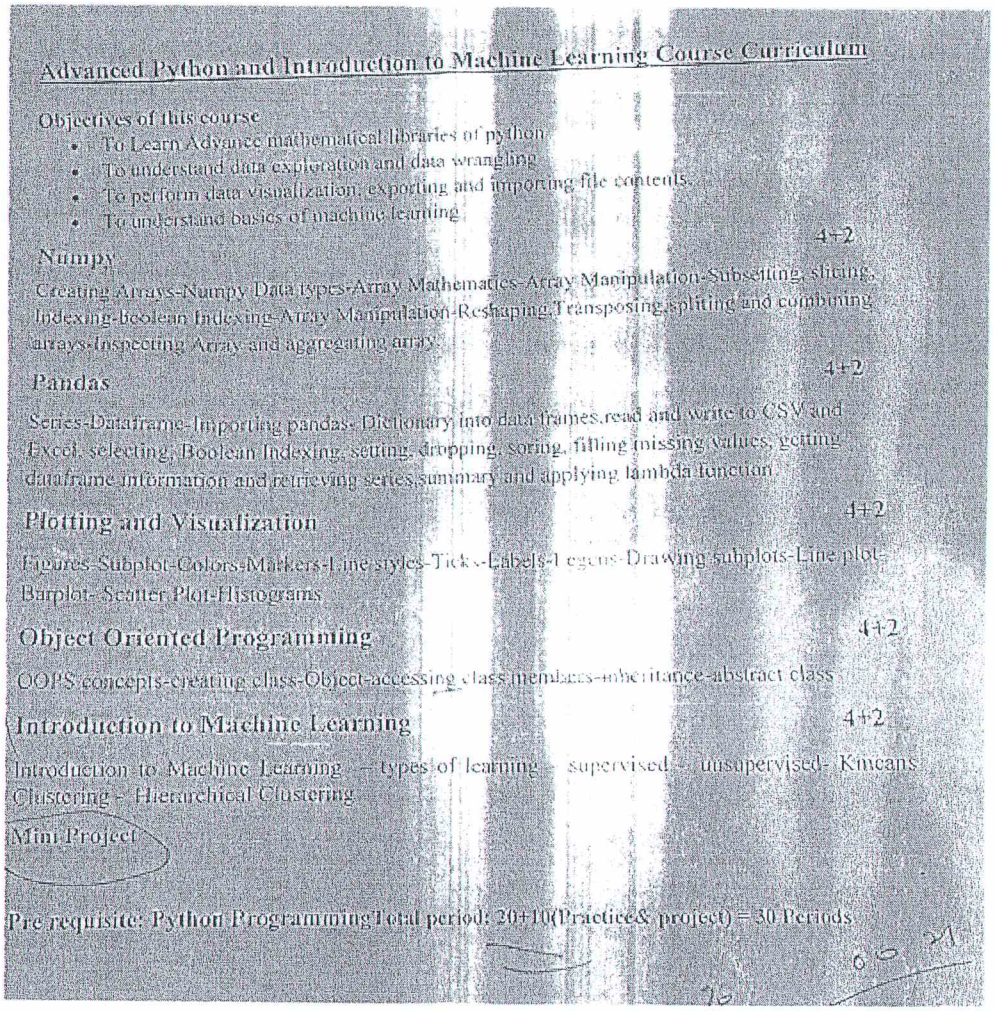
Sign. of HoD with date

Head-TC

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

Objectives of this course

- To Learn Advance mathematical libraries of python
- To understand data exploration and data wrangling
- To perform data visualization, exporting 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,Transposing,spliting 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-Line styles-Ticks-Labels-Legend-Drawing subplots-Line plot-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- Kmeans Clustering - Hierarchical Clustering

Mini Project

Pre requisite: Python Programming Total period: 20+10(Practice& project) = 30 Periods

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DEPARTMENT OF CSE

Name of the Value Added Course : Advanced Python and Introduction to Machine Learning				
Year/Sem: IV/VII		Faculty In charge:		Mr.G.RamaMohan Reddy
Location: Computer Lab-I		Academic Year : 2020- 2021		19-04-2021 to 29-04-2021
S.No	**Name of the Student**	**Register No**	**Status of qualifying**	**Sign of Student**
1	AAYISHA M	311817104001	Yes	
2	AFROZE FATHIMA M	311817104002	Yes	
3	ASIF FAYAZ S	311817104003	Yes	
4	DINESH D	311817104004	Yes	
5	FAHIMA S	311817104005	Yes	
6	FAHIRA S	311817104006	Yes	
7	JAI BALAJI V	311817104009	Yes	
8	JASIR HUSSAIN S	311817104010	Yes	
9	JAVID ASLAM J	311817104011	Yes	
10	KESAVAN H	311817104012	Yes	
11	MANOJ K	311817104013	Yes	
12	MOHAMED FAYAZ P R	311817104014	Yes	
13	MOHAMED FUROSE H	311817104015	Yes	
14	MOHAMED NAZEER A	311817104016	Yes	
15	MOHAMED RIYAZ M	311817104017	Yes	
16	MOHAMED SAJED S	311817104018	Yes	
17	MOHAMED SUHAIL M B	311817104019	Yes	
18	MOHAMMED SULAIMAN B	311817104020	Yes	
19	NAJEEHA BANU A	311817104021	Yes	
20	NAVEEN KUMAR S	311817104022	Yes	
21	NITHYADARSHNI S	311817104023	Yes	
22	RAHAMATHULLAH K	311817104024	Yes	
23	RAHUMANGANI R	311817104025	Yes	
24	RAMESH S	311817104026	Yes	
25	SABEER AHAMED S	311817104027	Yes	
26	SANTHOSHRAJA L	311817104028	Yes	
27	SELCIYA J	311817104029	Yes	
28	SHAHID YAASER J	311817104030	Yes	
29	SOUNDARYA M	311817104031	Yes	
30	SYED SAHIR AHMED	311817104032	Yes	
31	VENKATESAN S	311817104034	Yes	

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DEPARTMENT OF IT

Name of the Value Added Course : Advanced Python and Introduction to Machine Learning				
Year/Sem: IV/VII		Faculty Incharge:		Mr.G.RamaMohan Reddy
Location: Computer Lab-II		Duration:		19-04-2021 to 29-04-2021
S.No	**Name of the Student**	**Register No**	**Status of qualifying**	**Sign of Student**
1	311817205003	Kabilan R	Yes	
2	311817205004	Mohamedhanaz N	Yes	
3	311817205005	Prakash R	Yes	
4	311817205006	Ranjith T	Yes	
5	311817205007	Vignesh V	Yes	
6	311817205008	Vishnu T	Yes	
7	311817205701	Bhavani K	Yes	
8	311817205702	Bhuvanatharshini A	Yes	
9	311817205703	Jothika M	Yes	
10	311817205704	Vinodha K	Yes	

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S.No	Name of the Student	Register No	19 Mar21	20 Mar21	21 Mar21	22 Mar21	23 Mar21	25 Mar21	26 Mar21	27 Mar21	28 Mar21	29 Mar21	Sign of Student
1	AAYISHA M	311817104001	/	/	/	/	/	/	/	/	/	/	
2	AFROZE FATHIMA M	311817104002	/	/	/	/	/	/	/	/	/	/	
3	ASIF FAYAZ S	311817104003	/	/	/	/	/	/	/	/	/	/	
4	DINESH D	311817104004	/	/	/	/	/	/	/	/	/	/	
5	FAHIMA S	311817104005	/	/	/	/	/	/	/	/	/	/	
6	FAHIRA S	311817104006	/	/	/	/	/	/	/	/	/	/	
7	JAI BALAJI V	311817104009	/	/	/	/	/	/	/	/	/	/	
8	JASIR HUSSAIN S	311817104010	/	/	/	/	/	/	/	/	/	/	
9	JAVID ASLAM J	311817104011	/	/	/	/	/	/	/	/	/	/	
10	KESAVAN H	311817104012	/	/	/	/	/	/	/	/	/	/	
11	MANOJ K	311817104013	/	/	/	/	/	/	/	/	/	/	
12	MOHAMED FAYAZ P R	311817104014	/	/	/	/	/	/	/	/	/	/	
13	MOHAMED FUROSE H	311817104015	/	/	/	/	/	/	/	/	/	/	
14	MOHAMED NAZEER A	311817104016	/	/	/	/	/	/	/	/	/	/	
15	MOHAMED RIYAZ M	311817104017	/	/	/	/	/	/	/	/	/	/	
16	MOHAMED SAJED S	311817104018	/	/	/	/	/	/	/	/	/	/	
17	MOHAMED SUHAIL M B	311817104019	/	/	/	/	/	/	/	/	/	/	

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18	MOHAMMED SULAIMAN B	311817104020	/	/	/	/	/	/	/	/	/	/	/	/	✓
19	NAJEEHA BANU A	311817104021	/	/	/	/	/	/	/	/	/	/	/	/	✓
20	NAVEEN KUMAR S	311817104022	/	/	/	/	/	/	/	/	/	/	/	/	✓
21	NITHYADARSHNI S	311817104023	/	/	/	/	/	/	/	/	/	/	/	/	✓
22	RAHAMATHULLAH K	311817104024	/	/	/	/	/	/	/	/	/	/	/	/	✓
23	RAHUMANGANI R	311817104025	/	/	/	/	/	/	/	/	/	/	/	/	✓
24	RAMESH S	311817104026	/	/	/	/	/	/	/	/	/	/	/	/	✓
25	SABEER AHAMED S	311817104027	/	/	/	/	/	/	/	/	/	/	/	/	✓
26	SANTHOSHRAJA L	311817104028	/	/	/	/	/	/	/	/	/	/	/	/	✓
27	SELCIYA J	311817104029	/	/	/	/	/	/	/	/	/	/	/	/	✓
28	SHAHID YAASER J	311817104030	/	/	/	/	/	/	/	/	/	/	/	/	✓
29	SOUNDARYA M	311817104031	/	/	/	/	/	/	/	/	/	/	/	/	✓
30	SYED SAHIR AHMED	311817104032	/	/	/	/	/	/	/	/	/	/	/	/	✓
31	VENKATESAN S	311817104034	/	/	/	/	/	/	/	/	/	/	/	/	✓

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Signature of HoD with date

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S.No	Register No	Name of the Student	19 Mar21	20 Mar21	21 Mar21	22 Mar21	23 Mar21	25 Mar21	26 Mar21	27 Mar21	28 Mar21	29 Mar21	Sign of Student
1	311817205003	KABILAN R	/	/	/	/	/	/	/	/	/	/	
2	311817205004	MOHAMEDHANAZ N	/	/	/	/	/	/	/	/	/	/	
3	311817205005	PRAKASH R	/	/	/	/	/	/	/	/	/	/	
4	311817205006	RANJITH T	/	/	/	/	/	/	/	/	/	/	
5	311817205007	VIGNESH V	/	/	/	/	/	/	/	/	/	/	
6	311817205008	VISHNU T	/	/	/	/	/	/	/	/	/	/	
7	311817205701	BHAVANI K	/	/	/	/	/	/	/	/	/	/	
8	311817205702	BHUVANATHARSHINI A	/	/	/	/	/	/	/	/	/	/	
9	311817205703	JOTHIKA M	/	/	/	/	/	/	/	/	/	/	
10	311817205704	VINODHA K	/	/	/	/	/	/	/	/	/	/	

Head-Training

Signature of HoD with date

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ANNA UNIVERSITY, CHENNAI -600025

CONTROLLER OF EXAMINATIONS

NOVEMBER-DECEMBER 2020 (REEXAMINATION)

AND APRIL-MAY 2021

Regno : 311817104034 **Name :** VENKATESAN S

College : MOHAMMED SATHAK A.J.COLLEGE OF ENGINEERING

Slno	Subcode	Subname	Grade	Result
1	CS8079	Human Computer Interaction	A	P
2	CS8791	Cloud Computing	A	P
3	CS8792	Cryptography and Network Security	B+	P
4	IT8075	Software Project Management	A	P
5	CS8491	Computer Architecture	A+	P
6	CS8494	Software Engineering	B+	P
7	CS8080	Information Retrieval Techniques	A+	P
8	CS8811	Project Work	A+	P
9	GE8076	Professional Ethics in Engineering	O	P
10	IVA018	Advanced Python and Introduction to Machine Learning	O	P
11	CS8711	Cloud Computing Laboratory	A	P
12	IT8761	Security Laboratory	A	P

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PRINCIPAL
MED SATHAK A.J.COLLEGE
34, Rajiv Gandhi Road (OMR)
Chennai-6

Department of
Electrical and Electronics Engineering

Organize

A Value Added Course
on

ELECTRIC VEHICLE (EVA033)

Co-Ordinator:
Mr. C. Venkatesh, AP/EEE

+91-9940004500/044-27470024 msajce.office@gmail.com www.msajce-edu.in

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Siruseri IT Park, Egattur, Chennai 603 103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VALUE ADDED COURSE SUMMARY 2020-2021

Course Code & Name : EVA 033 and Electric Vehicle

Course Duration: 30 Periods

Years Offered: IV Year EEE students – 2020-2021

Course Instructors: Mr.C.Venkatesh
AP/EEE

Course type: After completing this course. Students should demonstrate competency in the following skills:

- Analysis the configuration and control methods of electric propulsion unit.
- Summarize the factors that control battery operational characteristics and the primary mechanisms.
- Describe the basics fundamentals and working principle of electrical machines.
- Analysis the transmission characteristics and mathematical models of Electric Vehicles.
- Discuss the energy management strategies used in hybrid and electric vehicles.

Course Type: Anna University - Two credit Value Added Course

Assessment Mode:

Attendance : 30 Hours

Number of Participants: 05

Scheme of the exam: MCQ

Course Coordinator

HoD

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Department of EEE

Students Enrolled List

Electric Vehicle

S.no	Reg. No. of the Student	Student Name
	IV Year EEE	
1	311817105003	Ijaz Ahamed
2	311817105004	Mohamed Amrith
3	311817105007	Mohamed Nihath N
4	311817105301	Hassain K
5	311817105302	Maf. Khaja Mohideen

Course Coordinator

HoD

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING - CHENNAI - 603 103

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EVA 033-ELECTRIC VEHICLE ATTENDACE- (2020-2021)

S.no	Reg. No. of the Student	Student Name	4/12/2021	4/17/2021	4/23/2021	4/24/2021	4/27/2021	4/28/2021	4/29/2021	4/30/2021	5/1/2021	5/4/2021	5/5/2021	Total	% of Attendance
	IV Year EEE														
1	311817105003	Ijaz Ahamed	3	0	3	3	3	3	0	0	3	3	3	24	73
2	311817105004	Mohamed Amrith	3	3	3	3	3	3	3	0	3	3	3	30	91
3	311817105007	Mohamed Nihath N	3	3	0	3	3	3	3	3	3	3	3	30	91
4	311817105301	Hassain K	3	3	3	3	3	3	3	0	3	3	3	30	91
5	311817105302	Maf. Khaja Mohideen	3	3	3	3	3	3	3	3	3	0	3	30	91

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Chennai-603 103.

APPLICATION FOR CONDUCTING VALUE ADDED COURSES

1. Name of the Department		:B.E ELECTRICAL & ELECTRONICS ENGINEERING (REGULATIONS 2017)
2. UG programme	:	B.E
3. Details of the Value Added Courses:		
a. Name of the Value Added Courses:		EVA033 Electric Vehicles
b. Type of Value Added Courses	:	(Lab integrated theory)
c. Short Description	:	Enclosure 1 enclosed - YES
d. Syllabus including Reference	:	Enclosure 2 enclosed - YES
4. Target audience:		
Semester (indicate if more than one)	:	VIth & VIIIth Semester only
Others		
5. Details of Faculty handling the course:		
a. Name of the Faculty handling the Value Added Course	:	Mr.Chintala. Venkatesh
b. Details including designation and expertise	:	Enclosure 3 enclosed - YES
c. Contact details		
Email ID	:	eee.venkatesh@msajce-edu.in
Phone No	:	8978090678
6. **Tentative Time Table** including dates of internal assessments	:	Enclosure 4 enclosed - YES
7. Number of students opting for the course	:	10
8. Department Consultative Committee - Minutes	:	Enclosure 5 enclosed - YES
9. Name and Designation of the Coordinator		Mrs. R. Abirami, Assistant Professor, Department of Electrical and Electronics Engineering, Mohamed Sathak A J College of Engg.

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11/03/2021

Head of the Department
(with date & seal)

DEPARTMENT OF EEE
Mohamed Sathak A.J.College of Engg.
Siruseri IT Park, Chennai - 603 103

11/3/21

Head of the Institution
(with date & seal)

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

Director, Academic Courses

Additional Controller of Examinations

B.E - ELECTRICAL AND ELECTRONICS ENGINEERING

REGULATION – 2017

CHOICE BASED CREDIT SYSTEM

SYLLABUS FOR VALUE ADDED COURSE

Sl. No	Course Code	Course Title	Category	Contact Periods	L	T	P	C
1	EVA033	Electric Vehicles	EEC	2	2	0	0	2

Objectives:

- To present a comprehensive overview of Electric and Hybrid Electric Vehicles
- To study about the working of Electric Vehicle.
- To impart the knowledge on energy storage device.
- To learn electric vehicle drive systems.
- To understand the configuration of hybrid vehicles.

Unit I **Introduction to Electric Vehicle** 6

Introduction - History of Electric Vehicle - Benefits of Electric Vehicle - Types and its challenges - Introduction to EV Motor Drives Technologies - EV Battery Charging Technologies - Electric Vehicle to Grid Connection – Regulation and Policy

Unit II **Electrical Drive and Controller** 6

Types of DC and AC Motors – Selection of Motor – Torque and RPM Calculation – Motor Controlling Techniques – Function of Control Unit – Development Process – Hardware and Software Requirement.

Unit III **Electric Vehicle Drive Train Topologies** 6

Introduction to Drive Train I topology in Electric Vehicle – Basic Concepts of Electric Traction – Power Flow Control – Breaking Systems – Gear and Clutch Arrangement.

Unit IV **Battery Management Systems** 6

Need – Rule based Control and optimization base control – Software based High Level Supervisory control – Mode of Power – Behavior of Motor – Types of Battery – Characteristics.

Unit V **Hybrid Electric Vehicles** 6

History – Importance of Hybrid Vehicle – Vehicle Performance – Power Source – Transmission Characteristics – Fuel Efficiency Analysis.

TOTAL: 30 PERIODS

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Outcomes:

After completing this course, students should demonstrate competency in the following skills:

- Analysis the configuration and control methods of Electric Propulsion unit.
- Summarize the factors that control battery operational characteristics and the primary mechanisms.
- Describe the basic fundamentals and working principles of electrical machines.
- Analysis the transmission characteristics and mathematical models of Electric Vehicles.
- Discuss the energy management strategies used in hybrid and electric vehicles.

Text Books:

1. Iqbal Hussain, "Electric & Hybrid Vehicles – Design Fundamentals", Second Edition, CRC Press, 2011.
2. M. Ehsani, Y. Gao, S. Gay and A. Emadi,Modern Electric, Hybrid Electric, and Fuel CellVehicles, CRC Press, 2005.
3. T. Denton, "Electric and Hybrid Vehicles", Routledge, 2016.
4. C. Mi, M. A. Masrur and D. W. Gao, "Hybrid Electric Vehicles: Principles and Applications with Practical Perspectives", John Wiley & Sons, 2011.

Reference:

1. S. Onori, L. Serrao and G. Rizzoni, "Hybrid Electric Vehicles: Energy Management Strategies", Springer, 2015.
2. James Larminie, "Electric Vehicle Technology Explained", John Wiley & Sons, 2003.
3. Sandeep Dhameja, "Electric Vehicle Battery Systems", Newnes, 2000.

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34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

RESUME

CHINTALA VENKATESH

Ph.no :+91-8978090678

E-mail :venki7c@gmail.com

OBJECTIVE

To utilize my teaching skills towards a challenging career in growth oriented and leading edge that will provide mutual benefits and where from I can utilize my capabilities to the fullest benefits of the organization and society.

ACADEMIC PROFILE

Course	Year Of Passing	Institution	Board / University	Class
Ph.D	Pursuing	RMK College	Anna University	--
M.Tech (PE)	2013	SITAMS,Chittoor	JNTU, Anantapur, AP	1st Class with Distinction
B. Tech (EEE)	2010	Narayana Engineering College, Nellore	JNTU, Anantapur, AP	1st Class
Intermediate (M.P.C)	2006	Sri Chaitanya Jr. College Nellore	Board of Intermediate Education,AP	1st Class with Distinction
SSC	2004	Z P P HighSchool,Vasili, Nellore	Board of Secondary Education, AP	1st Class

TEACHING EXPERIENCE DETAILS

- As an **Assistant Professor** in **Mohamed Sathak A J College of Engineering, Chennai** from **December 2019** to **till now.**
- As an **Assistant Professor** in **SMK FOMRA INSTITUTE Of Technology, Kellambakkam, Chennai** from **December 2017** to **December 2019.**
- As an **Assistant Professor** in **Andhra Engineering College, Nellorepalem** from **January 2014** to **December 2017.**
- As an **Assistant Professor** in **Atmakur Engineering College, Nellorepalem** from **June 2010** to **December 2011.**

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SUBJECTS HANDLED

- Electromagnetic Fields
- Electrical Technology
- Power Electronics
- Utilization of Electrical Energy
- Transmission and Distribution
- Solid State Drives
- Principles of Power Quality
- Programmable Logic Controllers
- Basic Electrical Engineering
- Energy Systems
- Circuit Theory
- Control System

EXTRACURRICULAR ACTIVITIES

- I won third prize for "**Javelin Throw**" in college level for the year of 2006-07.
- Runners in "**Volley Ball**" match in Narayana engineering college for the year of 2006-07.

TECHNICAL SKILLS

Operating Systems	Windows Vista, Windows 2010
Programming Languages	MATLAB Simulation, Ladder Logic
Utility Packages	MS-Office
Auto machine Packages	PLC

KEY SKILLS

- Excellent explanation skills.
- Can teach the students as per their level.
- Good communication skills.
- Awareness about the various teaching techniques.
- In depth knowledge of the subjects.
- Can speak for long time.
- Patience.

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PUBLICATION, WORKSHOP & PAPER PRESENTATION DETAILS

- Participated in AICTE sponsored 2-day national level seminar on "**Photovoltaic Inverters Wit Stand Alone Systems**" organized by **Rajeev Gandhi Memorial College Of Technology, Nandya**on 6th -7th October 2017.
- An International Journal on "**Safety Enhanced Boost Converter for PV Panel**" in **International Journal Of Innovative Research In Science, Engineering And Technology,** Volume 4, Issue 8, August 2015.
- Participated in a workshop on "**Wind Energy Conversion Systems**" by **JNTU Anantapur** on 13th April 2016.
- Participated in a workshop on "**Fundamentals of MATLAB**" by**Andhra Engineering College, Atmakur**on 30th -31st January 2016.
- Presented a paper on "**Maximum Power Point Tracking system**" in**NCPRTE-2K15** by **Andhra Engineering College, Atmakur**on 30th September 2015.

PERSONAL DETAILS

Name	:	C.Venkatesh
Fathers Name	:	C.Ankaiah
D.O.B	:	1st September 1988
Gender	:	Male
Marital Status	:	Married
Phone No	:	+91-8978090678
Languages known	:	Tamil, English, Hindi & Telugu
Address	:	15/29, Swathantra Nagar, 4th Street, Lloyds Road, Chennai,Pin: 600005.

SUMMERY

Interacting with different people and environments has strengthened in me the qualities of understanding new people and to work in any kind of situations. My strengths are patience, confidence, integrity and ability to absorb technology faster.

DECLARATION

I declare that the information above is true to the best of my knowledge.

PRINCIPAL
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Chennai-603 103.

Place: CHENNAI

Date: 11-03-2021

11/3/2021

(C VENKATESH)

DEPARTMENT OF B.E ELECTRICAL & ELECTRONICS ENGINEERING
(REGULATIONS 2017)

VALUE ADDED COURSE

EVA033 ELECTRIC VEHICLES

TIMETABLE

The value-added course can be conducted in the summer vacation for 10 consecutive days covering 30 hours to earn 2 credits by the students.

Day (12.30 PM to 3.30 PM)	Topic	Assessment
Day 1	Unit I	-
Day 2	Unit II	-
Day 3	Unit II	-
Day 4	Unit III	-
Day 5	Unit III	Assessment Test – I
Day 6	Unit III	-
Day 7	Unit IV	-
Day 8	Unit IV	-
Day 9	Unit V	-
Day 10	Unit V	Assessment Test – II

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

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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

B.E ELECTRICAL & ELECTRONICS ENGINEERING (REGULATIONS 2017)

VALUE ADDED COURSE

DEPARTMENT CONSULTATIVE COMMITTEE – MINUTES OF THE MEETING

Date: 11/03/21

As per the Regulations 2017, a department consultative committee is constituted to offer value added course for the 6th & 8th semester, B.E Electrical and Electronics Engineering 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 22/12/2020 at Department of B.E Electrical and Electronics Engineering, MSAJCE.

S.No.	Name & Designation	Member of Bodies	Signature
1.	Dr . I. Manju, Head of Technology Centers, Professor/ ECE, MSAJCE	Monitor the progress of the course	I. Manju
2.	Mr. K. Vairaperumal, Assistant Professor/EEE, MSAJCE	Senior Faculty Member	
3.	Mrs. R. Abirami, Assistant Professor/ EEE, MSAJCE	Coordinator	R. Abirami
4.	Mr. Chintala. Venkatesh, HoD/EEE, MSAJCE	Faculty handling the course	C. Venkatesh 11/3/2021

The consultative committee has decided to offer EVA033 Electric Vehicles for the students since it is essential for them to acquire knowledge and work in core Industry. The committee recommends Mr. C. Venkatesh, HoD/EEE belongs to MSAJCE, Chennai to handle the course and train the students in Electric Vehicles platform. 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.

R. Abirami
Coordinator

Committee Chairperson

(Senior Faculty Member)

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C. Venkatesh 11/3/2021
HoD / EEE

DEPARTMENT OF EEE
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Fax / Dir : 22357074
22352273

S.HOSIMIN THILAGAR
RECTOR
tter No:615/AU/EVA/CAC/2021

12.03.2021

e Controller of Examinations
na University
ennai - 25

Sub : A.U. - CAC – Affiliated Institutions – Value Added Courses – Reg.

Ref : (i) Letter No. Nil, dated: 01.03.2021.
(ii) Mail received from the Head, Department of EEE, Mohamed Sathak A.J. College of Engineering, dated 12.03.2021.

******

With reference to the letter cited above, course code is allotted for the Value Adde urse as mentioned below.

S.No	Code Allotted	Title	L T P C
1	EVA033	Electric Vehicles	2 0 0 2

This is for your kind information and necessary action at your end.

Yours faithf

DIRECTO

12-3

y to:
he Chairperson, Faculty of Electrical Engineering, Anna University, Chennai - 25.
he Principal, Mohamed Sathak A.J.College of Engineering, No.34, Rajiv Gandhi R OMR) SIPCOT – IT Park, Siruseri, Chennai – 603 103.
he Stock File.

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Anna University, Chennai
Office of the Controller of Examinations
Abstract of Value Added selection List

College Code / Name : 3118 - MOHAMMED SATHAK A.J.COLLEGE OF ENGINEERING

Branch Code / Name : 105 - B.E. Electrical and Electronics Engineering

Semester : 05 **University : AUC** **Regulation : 2017** **Credit : 2**

Subject : EVA033 - Electric Vehicles

S.No	Register Number/Student code	Name of the Student
1	311819105001	FAHED S
2	311819105002	MOHAMMED RIJWAN H
3	311819105003	SATHIYAN S
4	311819105005	STALIN K
5	311819105301	BHUVANESH S
6	311819105302	AKRAM MOHIUDDIN F

7/10/21

Signature of the Principal with seal

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MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING 3118

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Regno : 311817105302 **Name :** KHAJA MOHIDEEN M A **College :** MOHAMMED SATHAK A.J.COLLEGE OF ENGINEERING

F

Slno	Subcode	Subname	Grade	Result
1	EE8701	High Voltage Engineering	A+	P
2	GE8077	Total Quality Management	A+	P
3	EE8017	High Voltage Direct Current Transmission	O	P
4	EE8811	Project Work	A+	P
5	EVA033	Electric Vehicles	O	P
6	MG8591	Principles of Management	A	P
7	EE8711	Power System Simulation Laboratory	O	P
8	EE8712	Renewable Energy Systems Laboratory	A+	P

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Regno : 311817105301 **Name :** HASSAIN K **College :** MOHAMMED SATHAK A.J.COLLEGE OF ENGINEERING

Slno	Subcode	Subname	Grade	Result
1	EE8017	High Voltage Direct Current Transmission	O	P
2	EE8811	Project Work	O	P
3	EVA033	Electric Vehicles	A+	P
4	MG8591	Principles of Management	A	P
5	EE8711	Power System Simulation Laboratory	O	P
6	EE8712	Renewable Energy Systems Laboratory	O	P

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Regno : 311817105007 **Name :** MOHAMED NIHATH N **College :** MOHAMMED SATHAK A.J.COLLEGE OF ENGINEERING

Slno	Subcode	Subname	Grade	Result
1	EE8017	High Voltage Direct Current Transmission	O	P
2	EE8811	Project Work	O	P
3	EVA033	Electric Vehicles	A+	P
4	MG8591	Principles of Management	A	P
5	EE8711	Power System Simulation Laboratory	O	P
6	EE8712	Renewable Energy Systems Laboratory	O	P

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Regno : 311817105004 Name : MOHAMED AMRITH U College : MOHAMMED SATHAK A.J.COLLEGE OF ENGINEERING

Slno	Subcode	Subname	Grade	Result
1	EE8403	Measurements and Instrumentation	B+	P
2	EE8017	High Voltage Direct Current Transmission	A	P
3	EE8811	Project Work	A+	P
4	EVA033	Electric Vehicles	A+	P
5	MG8591	Principles of Management	B+	P
6	EE8711	Power System Simulation Laboratory	A+	P
7	EE8712	Renewable Energy Systems Laboratory	O	P

ANNA UNIVERSITY, CHENNAI -600025
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Regno : 311817105003 Name : IJAZ AHAMED M College : MOHAMMED SATHAK A.J.COLLEGE OF ENGINEERING

Slno	Subcode	Subname	Grade	Result
1	EE8702	Power System Operation and Control	A+	P
2	GE8077	Total Quality Management	A+	P
3	OCS752	Introduction to C Programming	A+	P
4	EE8017	High Voltage Direct Current Transmission	O	P
5	EE8811	Project Work	A+	P
6	EVA033	Electric Vehicles	O	P
7	MG8591	Principles of Management	A	P
8	EE8711	Power System Simulation Laboratory	O	P
9	EE8712	Renewable Energy Systems Laboratory	O	P

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MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

Mohamed Sathak A J College of Engineering, Chennai 603103

Circular

Ref: MSAJCE / PO -101/ 2020-2021 **Date: 10.8.2020**

It is hereby informed that the following faculty members has been nominated as members to the design the syllabus for the Add-on Course / Value added course **"Lab View"**

S.NO	Faculty Name	Designation
1	Dr.E.Dhiravidachelvi	Professor
2	Mrs.R.Abirami	Assistant Professor

All are requested to design the syllabus for the above mentioned course and submit on or before 13.8.2020.

10.8.2020

Principal

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Copy to:

1. The Chairman & Director
2. IQAC
3. All HoDs
4. Admin Office
5. Office file

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Circular

Ref: MSAJCE / PO 105 / 2020-2021 **Date: 18.8.2020**

It is hereby informed that the following faculty members to attend the Internal syllabus review meeting on 20.8.2020 at Board room to review the syllabus for the Add-on Course / Value added course **"Lab View".**

S.No	Faculty	Designation
1	Dr. E.Dhiravidachelvi	Head -Academic
2	Dr. I.Manju	Head - TC & IR
3	Mr.Prasath	Head - Placement
4	All HoDs	

All are requested to be available for the meeting.

18.08.2020

Principal

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34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

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5. Office file

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

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A J COLLEGE OF ENGINEERING

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34, Rajiv Gandhi Salai (OMR), Siruseri IT Park, Siruseri, Chennai - 603103

Department of
Electrical and Electronics Engineering
And
Electronics and Communication Engineering
Organize

NATIONAL INSTRUMENTS LabVIEW

A Course
on

LABVIEW (ENGLISH, 2020)

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
EGATTUR 603 104,
KANCHIPURAM DT

05th October 2020 - 10th October 2020

Co-Ordinator:
Mrs. R. Abirami, AP/EEE

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DEPARTMENT OF EEE & ECE

Value Added Course Summary 2020-21

Course code and Name : LABVIEW

Couse Duration : 45 hours

Years offered : III Year Students 2020-21

Course Instructors : Mrs. R.Abirami

Course Outcome's :

The Students will be outfitted with able to express programming and simulation for engineering problems. Find the 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 LAB VIEW Environment. Write basic mathematical, electrical, electronic problems in LAB VIEW, simulate and connect programming files with GUI Simulink.

Couse Type : Self Framed Value Added Course

Theory and Practical with Hands on Sessions

Assessment Mode : Attendance : 45 Hours

Number of Participants : 10

Scheme of Exam : Offline

Date of Exam:10.10.2020

Course Coordinator **HoD**

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Department of EEE

Students Enrolled List

LABVIEW

S.no	Reg. No. of the Student	Student Name
1	311818106001	Mohamed Vazeer.S
2	311818106002	Mohamed Najumudeen.J
3	311818106003	Yugaraj.R.K
4	311818106303	Syed Swaliha.S
5	311818106304	Vigneshwaran.V
6	311818105001	Mohamed Hishaam. M
7	311818105003	Peer Mohamed. S
8	311818105004	Sanjith. S
9	311818105301	John Moses. A
10	311818105302	Syed Mohamed Aathil. M

Course Coordinator

HoD

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DEPARTMENT OF EEE & ECE

Date:08/09/2020

Ref:01/MSAJCE/EEE/ODD/2020-2021

CIRCULAR

Our department is organizing a "ADD ON " on LABVIEW during 05/10/2020 to 10/10/2020.The following III Year EEE & ECE Students register with Mrs.R.Abirami AP/EEE on or before 25/10/2020.

The session schedule is as follows

Timing: **9.00 AM to 3.30 PM**

Company Name: NI Customer Education

Resource Person: R. ABIRAMI

Venue: DSP LAB

HoD

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COPY TO: EEE & ECE

Dept. of EEE &ECE

III Year EEE & ECE

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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.

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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

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Assessment Procedure for Add-on Courses / value Added Courses

1. Two Assessments shall be conducted during the semester by the course co-ordinator concerned.
2. A committee consisting of the Head of the Department, staff handling the course and a senior Faculty member nominated by the Head of the Institution shall monitor the evaluation process
3. Performance of students in each Add on course of study shall be evaluated based on
    - Midterm internal assessment and
    - Assessment at the end of the course.
4. Each Add on course, shall be evaluated for a maximum of 100 marks.
5. The weightage for questions may be as follows.
    - Part A: Objective Type Questions
    - Part B: Design/Prototype development/Mini projects/etc.
6. The question paper may be set with
    - 40% of questions to test the memory skills & the capacity to understand concepts.
    - 60% % of questions to the ability to apply, create, analyse and evaluate concepts.

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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.

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CO PO Mapping

Course Outcome	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Express programming & simulation for engineering problems	3	3	3					2		2	3	3
Find importance of this software for Lab Experimentation.	2	2	2									
Articulate importance of software in research by simulation work.	3	2	3									
Have in-depth knowledge of providing virtual instruments on LabVIEW Environment.	3	3	3					2		2	3	3
Write basic mathematical, electrical, electronic problems in LabVIEW, Simulate and Connect programming Files with GUI Simulink.	3	3										3

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S.No	Title	Topics to be Covered	T/R Books	Periods Required	Remarks
1	Introduction of LabVIEW	LabVIEW Environment : Definition Necessity of LabVIEW	T1/Website	1	PPT
		Exercises in basic programming (Tutorial)	T1/Website	2	LabVIEW software simulation
2	Designing the Software	Definitions of VI LabVIEW benefits Introductions of 3rd party interfaces and toolkits	T1/Website	1	PPT
		Programming and Execution methods (Tutorial)	T1/Website	2	LabVIEW software simulation
3	Basic Programming	How to use Numerical functions Comparator applications	T1/Website	2	BB/PPT
		Designing of Boolean operations (Tutorial)	T1/Website	2	LabVIEW software simulation
4	Designing of SubPrograms	Need of SubVIWhat is SubVI Various types in SubVIplots	T1/Website	2	PPT
		How to use the ConnectorPane with terminals (Tutorial)	T1/Website	2	LabVIEW software simulation
5	ProgrammingLoops	About For loops How to use Shift registers While loop designing Flat Sequences	T1/Website	2	PPT
		Designing of loops and shift registers (Tutorial)	T1/Website	2	LabVIEW software simulation

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S.No	Title	Topics to be Covered	T/R Books	Periods Required	Remarks
6	Structures	Case Structure : Definitionand designing method Event Structure : Definition and designing method	T1/Website	2	PPT
		Problem-Discussion on Structures (Tutorial)	T1/Website	2	LabVIEW software simulation
7	Data Handling-String,	Introduction of String, Arrays and Clusters	T1/Website	3	PPT
		Working with stringfunctions About arrays anddesigning How to do clustering in Vis (Tutorial)	T1/Website	2	LabVIEW software simulation
8	Data Handling-	Differentiations between Waveform charts and Waveform Graphs Acquire and use the systemfiles based on File I/O functions	T1/Website	2	PPT
9	Array and clusters	Report Generations in various files such as MS excel, TDMS, LVM files (Tutorial)	T1/Website	2	LabVIEW software simulation
10	External Interfaces	MAX and VISA explanations	T1/Website	2	PPT
		Designing of Serial communications andinterfacing methods (Tutorial)	T1/Website	2	LabVIEW software simulation

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S.No	Title	Topics to be Covered	T/R Books	Periods Required	Remarks
11	Data Acquisitions Process	Acquiring the real timedigital data to the LabVIEW User interface	T1/Website	1	PPT
		Controlling the LED operations (Tutorial)	T1/Website	2	LabVIEW software simulation
12	Instrument Control based on Embedded Controllers	Acquiring of real time analog sensor values	T1/Website	1	PPT
		Process of temperaturecontrol (Tutorial)	T1/Website	2	LabVIEW software simulation
13	Instrument Control based on Embedded Controllers	Controlling the Motors Create most interaction Vis	T1/Website	2	PPT
		Process of Lightning system control (Tutorial)	T1/Website	2	LabVIEW software simulation

	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/academic/students/learn-labview
2	https://www.labviewmakerhub.com/

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Assessment

1. What does VI stand for?

- Visible Items
- Visible Information
- Virtual Instruments

2. What is the purpose of a LLB-file?

- To make an application which can be run on any computer without having LabVIEW installed
- To save the VIs more quickly
- To store the VIs of an application as one single file, for easy distribution of the application

3. How can you (as a developer) hide the VI-diagram for a user?

- You can not do it.
- You can check the proper checkbox for it during saving (File / Save with Options / Application).
- You must check the proper checkbox for it via the menu Edit / VI Properties.

4. How many global variables can be stored in one single Global VI?

- Only one for each different global variable type
- 1
- There is no limit

5. Which is the preferred method of exchanging data between different while-loops in a diagram?

- Using local variables
- Using global variables
- Draw a signal line across the borders of the loops in the usual way

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6. See this VI: vi1. How many times does the for-loop run?

- 19
- 20
- 21

7. See this VI: vi1. What is the value of the i-variable after the VI has stopped?

- 19
- 20
- 21

8. See this VI: vi1. Which kind of data is avaliable at the terminal point of the signal line in the VI-diagram?

- A scalar (one single data value)
- An array of numerical data
- A cluster of numerical data

9. What is a cluster?

- A multi-variable containing different variables having various data types
- A multi-variable containing different variables having equal data types
- Just a displaying effect (to make a number of controls or indicators) appear as one unit

10. Suppose you will have a realtime plot (being continuously updated) on the front panel. Which kind of plotting indicator would you use?

- X-Y-graph
- Chart
- t-Y-graph

11. Which operations can not be used in Formula Node?

- Linear algebraic operations
- If-statements
- Switch-structures

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12. Which of the following has no workspace in which the variables are stored as long as the VI runs?

- Matlab Node
- Formula Node
- HiQ Node

13. Which of the following expressions are correct if used in Formula Node:

- y=a+b
- y=a+b;
- y=a_1+b;

14. What can you use a shift-register for?

- Store former values of a variable
- Store former VIs
- Automatically repair the "register" on your car

15. Which of the following graphics formats can not be used on a front panel?

- BMP
- WMF
- JPG

16. Which of the following document formats is not available when creating documentation automatically via the File / Print-menu?

- Word
- Rtf
- Html

17. What does it mean that FieldPoint is a distributed I/O-system?

- That it is distributed freely
- That LabVIEW-code is run distributedly (on the FieldPoint-system)
- That the I/O-channels are distributed - away from the computer

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18. What can you use the MAX-program for?

- To calculate max- (and min-) values of a measurement signal
- To maximize the performance of a VI
- To configure I/O-cards by National Instruments

19. Which limitations exist for using DataSocket to distribute data over a network?

- It can be used only on an intranet.
- It can be used on the Internet.
- (•) It can be used only between to PCs in a computing room on a campus

20. What determines the program order of execution of code in LabVIEW?

- The time when you entered the code
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EVALUVATION SHEET

1. What does VI stand for?

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EVALUVATION SHEET

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Sl.No	Name of theStudent	Register No.	Status of Qualifying
1	Mohamed Vazeer.S	311818106001	Qualified
2	Mohamed Najumudeen.J	311818106002	Qualified
3	Yugaraj.R.K	311818106003	Qualified
4	Syed Swaliha.S	311818106303	Qualified
5	Vigneshwaran.V	311818106304	Qualified
6	Mohamed Hishaam. M	311818105001	Qualified
7	Peer Mohamed. S	311818105003	Qualified
8	Sanjith. S	311818105004	Qualified
9	John Moses. A	311818105301	Qualified
10	Syed Mohamed Aathil. M	311818105302	Qualified

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LABVIEW ATTENDANCE- (2020-2021)

S.No	Reg. No. of the Student	Student Name	5.10.20	6.10.20	7.10.20	8.10.20	9.10.20	10.10.20	Total No. of hours	Attendance Percentage (%)
1	311818106001	Mohamed Vazeer.S	P	P	P	P	P	P	6	100
2	311818106002	Mohamed Najumudeen.J	P	P	P	P	P	P	6	100
3	311818106003	Yugaraj.R.K	P	P	P	P	P	P	6	100
4	311818106303	Syed Swaliha.S	P	P	P	P	P	P	6	100
5	311818106304	Vigneshwaran.V	P	P	P	P	P	P	6	100
6	311818105001	Mohamed Hishaam. M	P	P	P	P	P	P	6	100
7	311818105003	Peer Mohamed. S	P	P	P	P	P	P	6	100
8	311818105004	Sanjith. S	P	P	P	P	P	P	6	100
9	311818105301	John Moses. A	P	P	P	P	P	P	6	100
10	311818105302	Syed Mohamed Aathil. M	P	P	P	P	P	P	6	100

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DEPARTMENT OF ECE

Add-On Certificate Programs

Academic year 2020-2021

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20.12.2020
MSAJCE

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**asa value added course for this even semester for IV Year students of the (AY 2020 –2021). So I kindly request you to approve the same to update in the Anna University web portal.

Thanking You

MrsI.S.Suganthi
Course Coordinator

M. Kamarajan
HOD/ECE

Dr.E.Dhiravidachelvi
Academic/Head

Dr. I. Manju
Technology Centre Head

20/12/20
Dr. K. S. Srinivasan
Principal

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
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(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)
Siruseri IT Park, Egattur, Chennai 603 103

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Value Added Course

VIII Semester 2020-2021 (Even Semester)

Course Curriculum

SI.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

HOD/ECE

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

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)	:	VIth & VIIIth Semester only
Others		
5. Details of Faculty handling the course:		
a. Name of the Faculty handling the Value Added Course	:	Mr.S.Naveenkumar
b. Details including designation and expertise	:	Enclosure 3 enclosed - YES
c. Contact details		
Email ID	:	ece.naveenkumar @ msajce-edu.in
Phone No	:	9786238380
6. Tentative Time Table including dates of internal assessments	:	Enclosure 4 enclosed - YES
7. Number of students opting for the course	:	13
8. Department Consultative Committee - Minutes	:	Enclosure 5 enclosed - YES
9. Name and Designation of the Coordinator		Mrs. I.S.Suganthi Assistant Professor, Department of ECE Mohamed Sathak A J College of Engg.

Head of the Department
(With date & seal)
HEAD OF THE DEPARTMENT
ELECTRONICS & COMMUNICATION ENGINEERING
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
EGATTUR, CHENNAI - 603 103

for J. Murugan. 12/3/21

Head of the Institution
(With date & seal)
PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
No. 34, Rajiv Gandhi Road, (OMR) SIPCOT - IT Park,
Siruseri, Chennai - 603 103.

Director, Academic Courses

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

Additional Controller of Examinations

Fax / Dir 22352277

CENTRE FOR ACADEMIC COURSES
ANNA UNIVERSITY
CHENNAI - 600 025

Dr. S.HOSIMIN THILAGAR
DIRECTOR
Letter No.0387/AU/VA/CAC/FICE/2021

17.03.2021

To
The Controller of Examinations
Anna University
Chennai - 25.

Sir,

Sub: A.U. - CAC - Affiliated Institutions - Value Added Courses - Reg.
Ref: (i) Letter No. MSAJCE/PO/021/2020-21, dated:09.02.2021.
(ii) Mail received from the college, Mohamed Sathak A.J. College of Engineering, dated:13.03.2021 and 14.03.2021.

******

With reference to the letter cited above, course code is allotted for the Value added Course as mentioned below:

Sl. NO.	CODE ALLOTTED	TITLE	CREDITS			
			L	T	P	C
1.	IVA067	IOT using Arduino	1	0	2	2
2.	IVA018	Advanced Python and Introduction to Machine Learning	0	0	2	1

This is for your kind information and necessary action at your end.

Yours faithfully,

DIRECTOR

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
Siruseri, Old Mahabalipuram Road, Chennai-603 103

Copy to:

1. The Principal, Mohamed Sathak A.J. College of Engineering, Siruseri, Chennai – 603 103.
2. The Chairperson, Faculty of Information and Communication Engineering, A.U., Chennai -25.
3. The Stock File.

To Dr. Manju
Head ITC for n/c

Scanned with CamScanner

B.E ELECTRONICS AND COMMUNICATION ENGINEERING (REGULATIONS 2017)

VALUE ADDED COURSE

DEPARTMENT CONSULTATIVE COMMITTEE – MINUTES OF THE MEETING

Date: 12/03/21

As per the Regulations 2017, a department consultative committee is constituted to offer value added course for the 6th & 8th semester, B.E Electronics and communication Engineering 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 22/12/2020 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 . E.Dhiravidachelvi, Professor/ECE, MSAJCE	Senior Faculty Member	
3.	Mr.I.S.Suganthi / ECE, MASJCE	Coordinator	
4.	Mr.S.Naveenkumar Assistant Professor/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 Mr. S.Naveenkumar, 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

(Senior Faculty Member)

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Chennai

HoD / ECE
HEAD OF THE DEPARTMENT
ELECTRONICS & COMMUNICATION ENGINEERING
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
EGATTUR, CHENNAI - 603 103.

CURRICULUM VITAE

Career Objectives

- To obtain a challenging position in a well established and fast growing professional stream using the latest technologies.
- To improve my own knowledge base and application skills by keeping on learning and updating the latest technologies so that I can handle any eventual crisis either alone or with a team.

Present Status & Professional Experience

- Working asAssistant professor in Mohammed Sathak AJ College Of Engineering, Chennai from 1.6.2012 to till date (9yrs)
- Previously worked as Lecturer in Salem Kongu Polytechnic College, Salem from **1.9.2009 to 31.8.2010 (1yr)**

Total Experience: 10 Years

Academic Background

- **Ph.D in Internet of Things (IOT)**
  Pursuing (Part Time)
  SRM Institute of Science and Technology,Chennai,TN
- **Master of Engineering (M.E) in VLSI Design,**
  Course period: 2010-2012 (Full time)
  Anna University, Sona College of Technology, Chennai, Tamilnadu, India.
  Percentage of marks: 8.4 CGPA
- **Master of Business Administration (MBA) in Telecom Management,**
  Course period: 2009-2011 (Part time)
  Anna University, Coimbatore, Tamilnadu, India.
  Percentage of marks: 6.8 CGPA
- **Bachelor of Technology (B.Tech) in Electronics and Communication Engineering,** Course period:2004-2008(Full time)
  SRM University, Chennai, Tamilnadu, India.
  Percentage of marks: 7.8 CGPA
- HSC , Passed out in 2004
  Indian Matriculation Higher Secondary School, State Board, Harur, Tamilnadu, India.
  Percentage of marks: 85%
- S.S.L.C, Passed out in 2002
  Indian Matriculation Higher Secondary School, State Board, Harur, Tamilnadu, India.
  Percentage of marks: 80%

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Chennai-603 103.

S.NAVEEN KUMAR
Assistant Professor

E-mail:
naveen.shank9898@gmail.com

Contact Number:
Ph: +91-9786238380 (Mob)

Personal Details

Contact Address:
S.Naveenkumar, ME, MBA.,
6/162- A Karatur
P.Natamanagalam,Amani Kondalampatti,Salem-636010

Date of Birth: 17.01.1986
Sex: Male
Nationality: Indian
Marital Status: Married

Summary of skills

- Finished **Two Certified course in Internet of Things (IOT) in University of California through Coursera.**
- **Centre of Excellence (COE) Incharge for Embedded & IOT and Humanoid Robotics**
- Team Leader for **E-Yantra (Embedded and Robotics Lab) –IIT Bombay**
- Worked as a Placement Coordinator in MSAJCE college
- Project Coordinator in MSAJCE college
- Worked as an Industrial Visit coordinator for ECE department in MSAJCE.
- Worked as a Nodal officer of MSAJCE for BSNL.
- Signed MOU with 3 companies.
- Worked as an Overall Coordinator for technical symposium organized by ECE Branch, MSAJCE.

Additional skills

- Received **Best Academic Performance Award of the year 2017-2018 & 2018-2019** from Mohamed Sathak Trust.
- Got award for 100% result.
- Worked as a Administrative Coordinator
- Worked as a Class advisor
- Worked as a Value added program(VAP) coordinator
- Presentation skill coordinator
- Possess good time management and organizational skills
- Proven track record of guiding and motivating student

Software Proficiency

Programming Knowledge : C, Embedded C, VHDL, Verilog
Software Package : Arduino IDE, Atmel 6.2, Keil µ4, ARM 7 Mat lab, Xilinx ISE Simulator

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Patent Publication

TITLE : "Vehicular Edge Computing Using A Smart Embedded System For Intelligent Transportation" Journal No. 34/2020 Dated 21/08/2020

National and International Conference

- Presented a paper **"Design of High Speed Architecture of Parallel Mac Based on Radix 4 Modified Booth Algorithms"** in National conference held in K.S.Rangasamy College of Technology, Tiruchengode.
- Presented a paper **"Intrusion detection in captured human action recognition using cache distribution"** in International conference on Engineering Trends in 21 st century (ICET2K14)
- Presented a paper **"Integration of Location Detection and user authentication for secured ATM"** in International conference held in Sethu Institute of Technology,

Language Proficiency

Read, write and speak English, and Tamil.

Madurai.

- Presented a paper **"Automated and secured configuration in Ipv6 and Policy Based Routing"** in International conference held in Sethu Institute of Technology, Madurai
- Presented a paper **"Object Recognition Using Perspective Glass for Blind/Visually Impaired"** in National conference held in Anand Institute of Higher Technology, Chennai
- Presented a paper **"Implementation Of Protocol Independent Multicast (Pim) In Mpls Technique"** in National conference held in Anand Institute of Higher Technology, Chennai

Seminar /Workshop/FTDP Attended

- Attended a AICTE sponsored two days Seminar and workshop on **"Latest Trends and Advances in Ultra Wide Band Antenna Design"** in KCG College of Technology,Chennai.
- Attended a two days Workshop on **"Hands on Training in LABVIEW"** held during 4th -5th May 2012 at Sona College of Technology, Salem.
- Attended National Workshop on**"SYNOPSYS- VLSI DESIGN TOOLS"** from 15-12-2011 to 17-12-2011 at Kongu Engineering College, Perundurai.
- Attended National workshop on **"Embedded lab – ARM 7 processor"** at St.Joseph's Institute of Technology, Chennai.
- Attended a **FDTP** held during July 2012 for 1 week in MSAJCE, CHENNAI.
- Attended Seven Days **FDTP ON "EC6703 - Embedded and Real Time Systems"** 6 th to 13 thJune 2016
- Participated in One day National Workshop on **" Laser Scattering Techniques Using Laser Sensor"** was held on 24th Feb 2017

Declaration

I, hereby, declare that all the information furnished above is true to the best of my knowledge and belief.

Place: Chennai
Date: 12.3.2021

NAVEENKUMAR.S

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34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

Permanent Address

S.Naveenkumar
6/162- A Karatur
P.Natamanagalam,Amani Kondalampatti,Salem-636010

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B.E – ELECTRONICS AND COMMUNICATION ENGINEERING

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.

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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 platform
C02	Application development-Integrate with Zigbee
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

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ENROLLED STUDENT'S NAME LIST

Department of ECE

IVA067 - IOT Using Arduino

S.No	Reg.No	Name of the Students
1	311817106002	Hameed Ziyath
2	311817106003	Karan J
3	311817106004	M Mohamed Abdul Rahman
4	311817106005	Mohamed Shafiqshariff
5	311817106006	Muhammed Swalih.K
6	311817106008	Rajkumar C
7	311817106010	Subash G
8	311817106301	Sandhya Roselin Mary

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MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

VALUE ADDED COURSE - COURSE CONTENT

Department of ECE

Class :IV ECE

Academic Year: 2020 TO 2021

Name of the Value Added Course	IVA067- IoT using Arduino	Name of the handling Faculty	S.Naveenkumar

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	T1	1	PPT/BB
2	Architecture and hardware organization of Arduino	T1	1	PPT/BB
3	Configuring GPIO and Clock Systems	T1	1	PPT/BB
4	Real Time Applications using GPIO configuration	T1	1	PPT/BB
5	LCD Interfacing	T1	2	PPT/BB
6	Technical explanation ADC	T1	1	PPT/BB
7	Configuring ADC	T1	1	PPT/BB
8	Real time applications using sensors	T1	1	PPT/BB
	UNIT II - Interfacing with Zigbee			
9	Bluetooth Interfacing	T2	1	PPT/BB

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12	Android mobile based device control	T2	1	PPT/BB
13	GSM Interfacing and send SMS	T2	1	PPT/BB
14	Real time Application Development with GSM	T2	1	PPT/BB
15	Zigbee Interfacing	T2	1	PPT/BB
16	Data transmission using zigbee	T2	2	PPT/BB
17	Real time application interfacing with sensors and Zigbee	T2	2	PPT/BB
	UNIT III - Real Time Applications			
18	DC Motor Interfacing	T1	2	PPT/BB
19	H Bridge Concept and design and ultrasonic interfacing	T1	2	PPT/BB
20	Clockwise and Anticlockwise control	T1	2	PPT/BB
21	Real time Application interfacing with Robotic vehicle model	T1	2	PPT/BB
22	Real time applications interfacing with sensors and Robot	T1	1	PPT/BB
	UNIT IV - Li-Fi with Arduino			
23	Introduction	T1&T2	2	PPT/BB
24	Li-Fi based data communication	T1&T2	3	PPT/BB
25	Interfacing Li Fi with Arduino	T1&T2	2	PPT/BB
26	Application development with LiFi	T1&T2	2	PPT/BB
	UNIT V - IOT- Configuration & Integration			
27	Introduction to IOT and Scope of IOT	T1&T2	1	PPT/BB
28	Webpage Creation	T1&T2	1	PPT/BB
29	Data Transmission from Sensors	T1&T2	1	PPT/BB
30	Configuration Webpage,Sensor data monitoring	T1&T2	1	PPT/BB
31	Wireless Interfacing,Android mobile based device control	T1&T2	1	PPT/BB
32	GSM Interfacing and send SMS	T1&T2	1	PPT/BB
33	Real time application Development with GSM	T1&T2	1	PPT/BB
34	Zigbee Interfacing data transmission using Zigbee	T1&T2	1	PPT/BB
35	Real time applications interfacing with Robotic vehicle	T1&T2	1	PPT/BB
	Quiz / Mini Projects / Model Developed if any			

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Text / Reference Books	
1	Internet Of Things (Iot) Technologies Applications Challenges And Solutions by BK Tripathy and J Anuradha, Pub: Taylor & Francis
2	Internet of Things: A Hands-On Approach Hardcover – 12,Arshdeep Bahga (Author)
Website / URL References	
1	https://circuitdigest.com/internet-of-things-iot-projects
2	https://create.arduino.cc/projecthub/projects/tags/iot

Sign. of Course Coordinator

Sign. of HoD with date

Format No.: TLP 21 Rev. No.: 1.0 Rev. Date:04.01.21

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Mohamed Sathak AJ College of Engineering,Chennai

VAC- IOT using ARDUINO

Final year ECE (ACY 2020-2021)

S.NO	Reg no	Name	4/1/2021	18/01/2021	25/01/2021	1/2/2021	8/2/2021	15/02/2021	22/02/2021	1/3/2021	15/03/2021	22/03/2021	29/03/2021	5/4/2021	12/4/2021	19/04/2021	19/04/2021	Attendance
1	311817106002	HAMEED ZIYATH U.R	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	42
2	311817106003	KARAN.J	P	P	P	A	P	P	P	P	A	P	P	P	P	P	P	40
3	311817106004	MOHAMED ABDUL RAHMAN.M	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	45
4	311817106005	MOHAMED SHAFIQ SHARRIFF.G	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	40
5	311817106006	MUHAMMED SWALIH.K	P	P	P	P	P	A	P	A	P	P	A	P	P	P	P	30
6	311817106008	RAJKUMAR.C	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	39
7	311817106010	SUBASH.G	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	45
8	311817106301	SANDHIYA ROSELIN MARY N.V	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	42
		Total Periods	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	45

Faculty Incharge

HOD

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B.E – ELECTRONICS AND COMMUNICATION ENGINEERING

ANNA UNIVERSITY, CHENNAI -600025
CONTROLLER OF EXAMINATIONS

NOVEMBER-DECEMBER 2020 (REEXAMINATION) AND

APRIL-MAY 2021

Regno : 311817106002 **Name** : HAMEED ZIYATH U R

College : MOHAMMED SATHAK A J COLLEGE OF ENGINEERING

Slno	Subcode	Subname	Grade	Result
1	EC8093	Digital Image Processing	A+	P
2	EC8094	Satellite Communication	O	P
3	EC8711	Embedded Laboratory	O	P
4	EC8761	Advanced Communication Laboratory	O	P
5	EC8811	Project Work	O	P
6	IVA067	IOT using Arduino	O	P
7	PH8151	Engineering Physics	O	P

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CONTROLLER OF EXAMINATIONS

NOVEMBER-DECEMBER 2020 (REEXAMINATION) AND

APRIL-MAY 2021

Regno : 311817106003 **Name :** KARAN J

College : MOHAMMED SATHAK A J COLLEGE OF ENGINEERING

Slno	Subcode	Subname	Grade	Result
1	EC8093	Digital Image Processing	A+	P
2	EC8094	Satellite Communication	O	P
3	EC8711	Embedded Laboratory	O	P
4	EC8761	Advanced Communication Laboratory	O	P
5	EC8811	Project Work	O	P
6	IVA067	IOT using Arduino	O	P

Logout

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CONTROLLER OF EXAMINATIONS

NOVEMBER-DECEMBER 2020 (REEXAMINATION) AND

APRIL-MAY 2021

Regno : 311817106004 **Name** : MOHAMED ABDUL RAHMAN M

College : MOHAMMED SATHAK A J COLLEGE OF ENGINEERING

Slno	Subcode	Subname	Grade	Result
1	EC8093	Digital Image Processing	A+	P
2	EC8094	Satellite Communication	O	P
3	EC8811	Project Work	O	P
4	IVA067	IOT using Arduino	O	P
5	EC8711	Embedded Laboratory	O	P
6	EC8761	Advanced Communication Laboratory	O	P

Logout

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ANNA UNIVERSITY, CHENNAI -600025
CONTROLLER OF EXAMINATIONS

NOVEMBER-DECEMBER 2020 (REEXAMINATION) AND

APRIL-MAY 2021

Regno : 311817106005 **Name** : MOHAMED SHAFIQ SHARRIFF G

College : MOHAMMED SATHAK A.J.COLLEGE OF ENGINEERING

Slno	Subcode	Subname	Grade	Result
1	EC8093	Digital Image Processing	A+	P
2	EC8094	Satellite Communication	O	P
3	EC8811	Project Work	O	P
4	IVA067	IOT using Arduino	O	P
5	EC8711	Embedded Laboratory	O	P
6	EC8761	Advanced Communication Laboratory	O	P

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B.E – ELECTRONICS AND COMMUNICATION ENGINEERING

Regno : 311817106006 **Name :** MUHAMMED SIVALIH K

College : MOHAMMED SATHAK A J COLLEGE OF ENGINEERING

Subcode	Subname	Grade	Result
OCS752	Introduction to C Programming	A	P
EC8551	Communication Networks	A	P
EC8392	Digital Electronics	A+	P
EC8252	Electronic Devices	A+	P
PH8253	Physics for Electronics Engineering	A+	P
EC8093	Digital Image Processing	A	P
EC8094	Satellite Communication	A+	P
EC8811	Project Work	O	P
IVA067	IOT using Arduino	A+	P
EC8711	Embedded Laboratory	A+	P
EC8761	Advanced Communication Laboratory	O	P

Logout

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ANNA UNIVERSITY, CHENNAI -600025

CONTROLLER OF EXAMINATIONS

NOVEMBER-DECEMBER 2020 (REEXAMINATION) AND

APRIL-MAY 2021

Regno : 311817106010 Name : SURASH C

College : MOHAMMED SATHAK A J COLLEGE OF ENGINEERING

Slno	Subcode	Subname	Grade	Result
1	EC8093	Digital Image Processing	A+	P
2	EC8094	Satellite Communication	O	P
3	EC8711	Embedded Laboratory	O	P
4	EC8761	Advanced Communication Laboratory	O	P
5	EC8811	Project Work	O	P
6	IVA067	IOT using Arduino	O	P

Print Report

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CONTROLLER OF EXAMINATIONS

NOVEMBER-DECEMBER 2020 (REEXAMINATION) AND

APRIL-MAY 2021

Regno : 311917106008 Name : RAJKUMAR C

College : MOHAMMED SATHAK A J COLLEGE OF ENGINEERING

Sno	Subcode	Subname	Grade	Result
1	EC8093	Digital Image Processing	O	P
2	EC8094	Satellite Communication	A+	P
3	EC8452	Electronic Circuits II	A	P
4	EC8701	Antennas and Microwave Engineering	A	P
5	EC8702	Adhoc and Wireless Sensor Networks	A+	P
6	EC8711	Embedded Laboratory	O	P
7	EC8751	Optical Communication	A	P
8	EC8761	Advanced Communication Laboratory	O	P
9	EC8811	Project Work	O	P
10	IVAD67	IOT using Arduino	O	P

Result

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NOVEMBER-DECEMBER 2020 (REEXAMINATION) AND
APRIL-MAY 2021

Regno [redacted] Name [redacted]
College MOHAMMED SATHAK A J COLLEGE OF ENGINEERING

Sno	Subcode	Subname	Grade	Result
1	EC8073	Medical Electronics	A	P
2	EC8093	Digital Image Processing	A	P
3	EC8094	Satellite Communication	B	P
4	EC8351	Electronic Circuits I	A+	P
5	EC8392	Signals and Systems	A+	P
6	EC8451	Electromagnetic Fields	A	P
7	EC8452	Electronic Circuits II	B+	P
8	EC8453	Linear Integrated Circuits	A	P
9	EC8501	Digital Communication	A+	P
10	EC8551	Communication Networks	A	P
11	EC8552	Computer Architecture and Organization	B+	P
12	EC8553	Discrete Time Signal Processing	B	P
13	EC8701	Antennas and Microwave Engineering	B	P
14	EC8711	Embedded Laboratory	UA	F
15	EC8721	Optical Communication	A	P
16	EC8711	Advanced Communication Laboratory	UA	F
17	EC8751	Embedded and Real Time Systems	B+	P
18	EC8811	Project Work	A+	P
19	[redacted]	[redacted]	A+	P
20	MA8451	Probability and Random Processes		P
21	[redacted]	[redacted]		P

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B.E – ELECTRONICS AND COMMUNICATION ENGINEERING

Value Added Course Summary 2020-21

Course code and Name : IVA067 and IOT Using Arduino

Couse Duration : 45 hours

Years offered : IV Year Students 2020-21

Course Instructors :Mr.S.Naveen Kumar

Course Outcome's

The Students will be outfitted with hands on Knowledge in IOT usingARDUINO Upon completion of the program, the students will be able To understand features of Ardunio Platform and theapplication Development –Integrated with Zig bee, Execute real-time application And Application development –LIFI with Arduino Execute coding to Gather and process data on the Arduino via the cloud

Couse Type : Anna University two credit Value Added Course
Theory and Practical with Hands on Sessions

Assessment Mode

Attendance: 30 Hours
Number of Participants : 8
Scheme of Exam: MCQ online through GCR
Date of Exam -: 2.4.21

Course Coordinator **HOD/ECE**

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B.E – ELECTRONICS AND COMMUNICATION ENGINEERING

Course Coordinator Report 2020-21

Course code and Name : IVA067 and IOT Using Arduino

Years offered : IV Year Students 2020-21

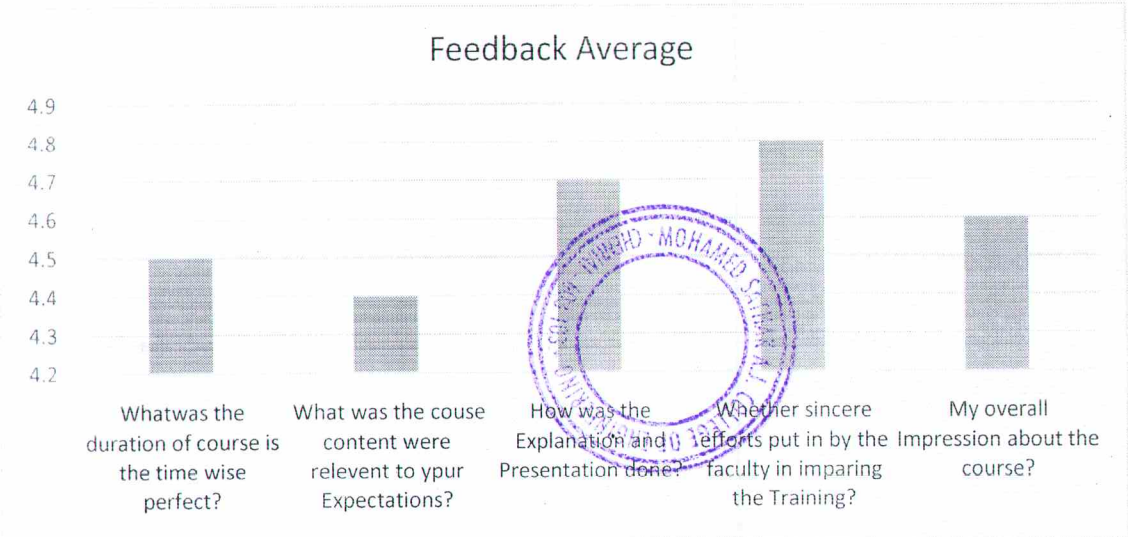
Course Instructors :Mr.S.Naveen Kumar Assistant Professor/ ECE DEPT

The certificate Program of IOT Using Arduino was Conducted for the final year Electronics and Communication Engineering Students. The total period of 45 Hrs. has been planned and executed as per the course plan.

Assessment Mode

Number of students Enrolled : 8
Scheme of exam : online
Number of Students Appeared :8
Number of students passed: 8
Date of Exam: 02:4:21

Course feedback: The feedback was obtained from the Participants after end the course and the detailed analysis report are listed below:



Course Coordinator **HOD/ ECE**

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B.E – ELECTRONICS AND COMMUNICATION ENGINEERING

From
M.Kamarajan,
Head/ECE,
Mohamed SathakA J College of Engineering,
Chennai.

To
The Principal,
Mohamed SathakA J College of Engineering,
Chennai.

Respected Sir,

Sub: Seeking Permission for conducting Certificate Program Regarding.

We are planning to conduct online certificate program in Collaborated with Course Era on the topic "Programming Foundations with Java Script,HTML&CSS" for II Year ECE Students from 30.09.2020 to 25.10.2020 by program coordinator Mrs.J.Nirmala AP/CSE. So I kindly request you to give permission for conducting this certificate program.

Thanking You,

Yours faithfully

Place: Chennai
Date: 12.09.2020

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B.E – ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 12/09/2020

Ref:01/MSAJCE/ECE/EVEN/2020-2021

CIRCULAR

Our department is organizing a "Online certification program" on "Programming Foundations With JAVA Scripts,HTML& CSS " during 30/09/2020 to 25/10/2020. The II Year Electronics and Communication Students register with Ms.J. Nirmala AP/ CSE on or before 25/09/2021.

The session schedule is as follows

Timing: 1.30 PM to 3.30 PM

Program coordinator: Ms.J. Nirmala , AP/CSE

Venue: Computer Lab I

HOD/ ECE

COPY TO:

Dept. of ECE

II Year ECE

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ENROLLED STUDENT'S NAME LIST

Department of ECE

Programming Foundations with Java Script, HTML&CSS

Sl.No	Register No.	Name of the Student
1	311819106001	AHAMED ALI. H
2	311819106002	AKSHAYA.K
3	311819106003	ASHWINI. A
4	311819106004	ASSIFA.A
5	311819106008	HASHIM ASLAM
6	311819106009	JAHANGEER NADIR KHAN. P
7	311819106010	MOHAMED ABDULLAH M
8	311819106011	MOHAMED SALAUDEEN. R
9	311819106012	MOHAMMED ASIF. A
10	311819106013	MOHAMMED TAHEER
11	311819106014	MOHSIN KHAN. M
12	311819106015	PATTAPU PRATHYUSHA
13	311819106017	RESMA .G
14	311819106018	RIZWAN AHAMED. M
15	311819106019	SARA. A

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B.E – ELECTRONICS AND COMMUNICATION ENGINEERING

Programming Foundations with Java Script,HTML&CSS - COURSERA

Department of ECE- List of students

S.no	Reg.number	Student Name	Certificate Program for Coursera
1	311819106001	AHAMED ALI. H	✓
2	311819106002	AKSHAYA.K	✓
3	311819106003	ASHWINI. A	✓
4	311819106004	ASSIFA.A	✓
5	311819106008	HASHIM ASLAM	✓
6	311819106009	JAHANGEER NADIR KHAN. P	✓
7	311819106010	MOHAMED ABDULLAH M	✓
8	311819106011	MOHAMED SALAUDEEN. R	✓
9	311819106012	MOHAMMED ASIF. A	✓
10	311819106013	MOHAMMED TAHEER	✓
11	311819106014	MOHSIN KHAN. M	✓
12	311819106015	PATTAPU PRATHYUSHA	✓
13	311819106017	RESMA .G	✓
14	311819106018	RIZWAN AHAMED. M	✓
15	311819106019	SARA. A	✓

Course coordinator

HOD

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B.E – ELECTRONICS AND COMMUNICATION ENGINEERING

Programming Foundations with Java Script,HTML&CSS - COURSERA

Department of ECE- Attendance from 30.09.2019-24.10.201

S.no	Reg.number	Student Name	30.09.2020	1.10.2020	3.10.2020	5.10.2020	6.10.2020	7.10.2020	8.10.2020	12.10.2020	13.10.2020	14.10.2020	15.10.2020	16.10.2020	19.10.2020	20.10.2020	21.10.2020	22.10.2020.
1	311819106001	AHAMED ALI H	/	/	/	a	/	/	/	/	a	/	/	/	/	/	/	/
2	311819106002	AKSHAYA K	/	/	a	/	/	/	/	/	/	/	a	/	/	/	/	a
3	311819106003	ASHWINI A	a	/	/	/	/	/	a	/	/	/	/	/	/	a	/	/
4	311819106004	ASSIFA A	/	/	/	a	/	/	/	/	/	/	/	/	/	/	/	a
5	311819106008	HASHIM ASLAM	/	/	/	/	a	/	/	/	/	/	/	/	a	/	/	/
6	311819106009	JAHANGEER NADIR KHAN. P	/	/	/	/	/	/	a	/	/	/	a	/	/	/	/	a
7	311819106010	MOHAMED ABDULLAH M	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/
8	311819106011	MOHAMED SALAUDEEN. R	/	/	/	/	/	/	a	/	/	/	/	/	a	/	/	/
9	311819106012	MOHAMMED ASIF A	/	a	/	/	/	/	/	a	/	/	/	/	/	a	/	/
10	311819106013	MOHAMMED TAHEER	/	/	/	a	/	/	/	/	/	a	/	/	/	/	a	/
11	311819106014	MOHSIN KHAN. M	/	a	/	/	/	/	/	/	a	/	/	/	/	/	/	a
12	311819106015	PATTAPU PRATHYUSHA	/	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/
13	311819106017	RESMA G	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/	/
14	311819106018	RIZWAN AHAMED. M	a	/	/	/	/	/	/	/	a	/	/	/	/	/	a	/
15	311819106019	SARA. A	/	/	/	/	/	a	/	/	/	/	a	/	/	/	/	/
		Noof Absentees.	2	3	1	3	1	2	3	1	2	1	3	4	3	2	2	4

Course coordinator

HOD

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Programming Foundations with JavaScript, HTML and CSS

Duke UNIVERSITY

Syllabus

WEEK 1

23 minutes to complete

Welcome

Welcome! In this module, you will be introduced to this course's approach to teaching the basics of programming, from building web pages, to writing programs with JavaScript, to making web pages interactive.

5 videos (Total 13 min), 1 reading

5 videos

1. Course Overview 3m
2. A Student's Perspective on Learning Programming 2m
3. Resources to Help You Succeed 2m
4. Tips for Learning Programming 1m
5. Using Forums: How to Ask for Help Effectively3m

1 reading

Module Feedback Surveys10m

7 hours to complete

Designing a Web Page with HTML and CSS

In this module, you will learn the basics of HTML and CSS to design a web page. Over the course of the module you will build your first web page!

10 videos (Total 51 min), 8 readings, 4 quizzes

1. Using CodePen2m
2. What Is HTML?7m
3. Metadata and Sectioning Elements2m
4. Formatting Text and Nesting Tags1m
5. Adding Images and Links3m

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6. Images and Storage6m
7. Lists and Tables7m
8. How CSS Is Used to Design Web Pages4m
9. CSS Basics7m
10. Colors and Names in CSS7m

8 readings

1. Try It! Create Your CodePen Account10m
2. Try It! Build a "My Interests" Web Page40m
3. Try It! Format Text20m
4. Try It! Add Links and Images30m
5. Try It! Create Lists and Tables45m
6. Try It! Style Your Web Page with CSS30m
7. Try It! Customize Your Web Page's Colors30m
8. End of Module Survey10m

4 practice exercises

1. Using HTML - Formatting Text30m
2. Using HTML - Displaying Data30m
3. Styling with CSS30m
4. Designing a Web Page with HTML and CSS30m
5.

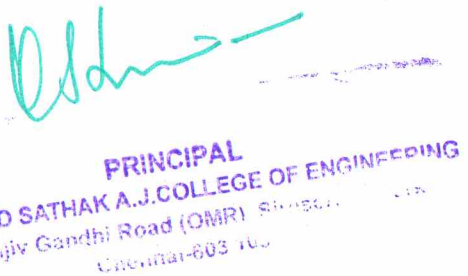
WEEK2

9 hours to complete

Algorithms and Programming Concepts

15 videos (Total 100 min), 7 readings, 6 quizzes

1. Introduction2m
2. Everything Is a Number6m
3. How Is That a Number?2m
4. Developing an Algorithm6m
5. A Seven Step Approach to Solving Programming Problems7m
6. Variables9m
7. Methods7m
8. Functions5m
9. Types4m
10. DukeLearnToProgram Environment10m



11. For Loops6m
12. Conditional Execution7m
13. Translating to Code10m
14. Thinking Critically about Your Program4m
15. Finding Bugs in Code9m

7 readings

1. Try It! Using Variables, Methods and Functions30m
2. Rampup Programming Exercise - Variables, Methods and Functions3m
3. Try It! Using For Loops30m
4. Rampup: Programming Exercise - Loops and Conditionals10m
5. Programming Exercise: Modifying Images1h 30m
6. Programming Exercise: Advanced Modifying Images1h 30m
7. End of Module Survey10m

6 practice exercises

Solving Programming Problems20m

Variables, Methods and Functions30m

Loops and Conditionals30m

Modifying Images with JavaScript30m

Debugging Your Code30m

Overview of Programming Concepts30m

WEEK3

8 hours to complete

JavaScript for Web Pages

8 videos (Total 62 min), 10 readings, 3 quizzes

1. Introduction3m
2. Buttons with Divs6m
3. Changing Pages Interactively7m
4. Using HTML5 Canvas10m
5. Inputs and Events8m
6. Upload and Display an Image7m
7. Convert Image to Grayscale8m
8. Moving to CodePen9m

10 readings

1. Try It! Buttons with Divs30m

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2. Try It! Change Pages Interactively30m
3. Programming Exercise: TODO list10m
4. Try It! Canvas30m
5. Try It! Inputs and Events30m
6. Programming Exercise: An Interactive Paint Canvas10m
7. Try It! Upload and Display an Image30m
8. Try It! Convert an Image to Grayscale1h
9. Try It! Green Screen Online1h 30m
10. End of Module Survey10m

3 practice exercises

1. Buttons and Interaction30m
2. Event-Driven Programming30m
3. Interactive Web Pages30m

WEEK 4

9 hours to complete

MiniProject: Image Filters on the Web

5 videos (Total 31 min), 7 readings, 3 quizzes

1. Introduction3m
2. Steganography Part I6m
3. Steganography Part II8m
4. Steganography Part III4m
5. Steganography Coding Example7m

7 readings

1. MiniProject Part 11h 30m
2. MiniProject Part 21h 30m
3. MiniProject Challenge1h
4. End of Module Survey10m
5. Extra Challenge5m
6. Steganography Review1h 30m
7. Steganography: Programming Exercise Guide1h 30m

3 practice exercises

1. Review of HTML, CSS, and JavaScript30m
2. Steganography math30m
3. Steganography30m

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ASSESMENT- PROGRAMMING FOUNDATIONS WITH JAVA SCRIPTS, HTML & CSS

Name: K. AKSHAYA

Reg.no: 311819106002

Year &Dept: II & ECE.

Date: 05/10/2020

19/25

1. Which organization defines the Web Standards?

a. Microsoft Corporation

b. IBM Corporation

c. World Wide Web Consortium

d. Apple Inc.

2. Which of the following is used to 2. Which of the following is used to create web pa create web pages?

a. HTML

b. C

c. JVM

d. DTD

3. HTML is considered as ___ language

a. Programming Langauge

b. OOP Language

c. High Level Language

d. Markup Language

4. HTML language is a set of markup ___

a. Attributes

b. Tags

c. Sets

d. Groups

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5. HTML tags are used to 5. HTML tags are used to describe document ____ describe document ____

a. Definition

b. Language

c. Content

d. None of these

6. HTML document can contain

a. Attributes

b. Tags

c. Plain text

d. All of these

7. Page designed in HTML is called a

a. Yellow Page

b. Web Page

c. Server Page

d. Front Page

8. We can write HTML 8. We can write HTML code using ____. Select approp code using ____. Select appropriate

option(s).

a. VLC Media

b. Notepad++

c. Microsoft PowerPoint

d. None of these

9. HTML document is saved using ____ extension.

a. .htl

b. .html

c. .hml

d. .htnl

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10. The software that can read 10. The software that can read and render HTML and render HTML

documents is

a. Server

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b. Compiler

c. Interpreter

d. Browser

11. PCs running Windows 3.x will have ____extension for html pages

a. .htl

b. .html

c. .htm

d. .hml

12. Which of the following is not an e 12. Which of the following is not an example of bro xample of browser?

a. Netscape Navigator

b. Microsoft Bing

c. Mozilla Firefox

d. Opera

13. Who is the primary author 13. Who is the primary author of HTML? of HTML?

a. Brendan Eich

b. Tim Berners-Lee

c. Web Programmer

d. Google Inc

14. HTML was first proposed in year ___.

a. 1980

b. 1990

c. 1995

d. 2000

15. HTML tags are surrounded by ___ brackets.

a. Angle

b. Square

c. Round

d. Curly

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16. Opening tag of HTML is called

a. Ending tag

b. Starting tag

c. Closed tag

d. Pair tags

17. HTML document contain one root tag c 17. HTML document contain one root tag called ____ alled ____

a. HEAD

b. Title

c. Body

d. HTML

18. Basic fundamental block is called as ___

a. HTML tag

b. HTML body

c. HTML Attribute

d. HTML Element

19. Is it possible to insert a 19. Is it possible to insert a table within another table within another table?

a. Yes, but there must be exactly 2 ro a. Yes, but there must be exactly 2 rows and 2 coluws and 2 columns in first table. mns in first table.

b. Yes, table can be inserted into cell of another table.

c. Yes, but there must c. Yes, but there must be no border in second table be no border in second table.

d. No, it's not possible.

20. What is the usage of 20. What is the usage of alt value in <img> tag? alt value in <img> tag?

a. Alternative text for an Image

b. Alternative source of an Image

c. Caption of an Image d. All of above

21. Which of the following is the cor 21. Which of the following is the correct regarding rect regarding meta tag in HTML?

A. <meta> … </meta>

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B.<meta name = " " />

C.<metadata> … </metadata>

D. <metadata name = " " />

22. Which of the following is correct 22. Which of the following is correct to set "Black to set "Black" color as " color as Background of page?

A.bgcolor = "#000000">

B.<body background = "#000000">

C.<body Background color = "#000000">

D. All of Above

23. Which of the following is correct 23. Which of the following is correct to align H1 t to align H1 tag to

Right Alignment

A.<h1 align = "right"> …

B.<h1 alignment = "right"> …

C.<h1 tag align = "right"> … </h1>

D. H1 cannot make Right Alignment

24. Which of the following is correct to change font face in Web Page

A. …

B. …

C. … …

D. Font Face cannot change

25. Which of the following is incorrect 25. Which of the following is incorrect regarding L regarding LogicaLstyles?

A.Code looks like teletype

B.Sample looks like teletype

C.Keyboard looks like teletype

D. Variable looks like teletype

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Value Added Course Summary 2020-2021

Course code and Name :Programming Foundations with Java Script,HTML&CSS

Couse Duration : 30 hours

Years offered : II YearStudents of ECE

Course Instructors:Ms.J.Nirmala AP/ CSE

Course Outcome's :

After completing this course students will be able to understand the concepts ofthe historical context and justification for HTML, Create HTML5 documents, Add content to an HTML page using HTML elements. , Use hyperlinks to connect various HTML pages together.

Couse Type: Add on course Organized By MSAJCE in association with Course era

Assessment Mode:

Attendance	: 30 Hours
Number of Participants	: 15
Scheme of Exam	: Offline Assessment Examination
Date of Exam -	: 05.10.2020

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Course Coordinator

HOD/ECE

Mohamed Sathak A J College of Engineering, Chennai 603103

Circular

Ref: MSAJCE / PO -100 / 2020-2021 **Date: 10.8.2020**

It is hereby informed that the following faculty members has been nominated as members to the design the syllabus for the Add-on Course / Value added course **"Fusion 360 Assembly Modelling"**

S.NO	Faculty Name	Designation
1	Dr.S.Prasath	Associate Professor
2	Mr. Mohan S.R	Assistant Professor

All are requested to design the syllabus for the above mentioned course and submit on or before 13.8.2020.

Principal 10.8.2020

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Circular

Ref: MSAJCE / PO 104 / 2020-2021 **Date: 18.8.2020**

It is hereby informed that the following faculty members to attend the Internal syllabus review meeting on 20.8.2020 at Board room to review the syllabus for the Add-on Course / Value added course **"Fusion 360 Assembly Modelling".**

S.No	Faculty	Designation
1	Dr. E.Dhiravidachelvi	Head -Academic
2	Dr. I.Manju	Head - TC & IR
3	Mr.Prasath	Head - Placement
4	All HoDs	

All are requested to be available for the meeting.

18.08.2020

Principal

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Circular

Ref: MSAJCE / PO 104 / 2020-2021 **Date: 18.8.2020**

It is hereby informed that the following faculty members to attend the Internal syllabus review meeting on 20.8.2020 at Board room to review the syllabus for the Add-on Course / Value added course **"Fusion 360 Assembly Modelling".**

S.No	Faculty	Designation
1	Dr. E.Dhiravidachelvi	Head -Academic
2	Dr. I.Manju	Head - TC & IR
3	Mr.Prasath	Head - Placement
4	All HoDs	

All are requested to be available for the meeting.

18.08.2020

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DEPARTMENT OF MECHANICAL ENGINEERING

COURSE MODULE

CourseObjectives:

The Students will acquire to
To present the basic theoretical knowledge of the Fusion 360
To gain practical experience in handling 3D modelling software systems.
To know the drawing of various engineering part and assembly
To gain the knowledge of cloud storage for mechanical software platform
To know the easy way of part modelling to 3D printing module

MODULE

1. Modelling concept and workflow
2. Sketching with Dimention and Constraction Control
3. Working With solids i) Extrusion ii) Revolution iii) Fillet & Chamber iv) Sweep and Loft.
4. Editing your model
5. Assemblies and Constraints
6. Materials and Images
7. Technical Drawing -Practice
8. Technical Drawing -Practice
9. Technical Drawing -Practice

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Assessment Procedure for Add-on Courses / value Added Courses

1. Two Assessments shall be conducted during the semester by the course co-ordinator concerned.
2. A committee consisting of the Head of the Department, staff handling the course and a senior Faculty member nominated by the Head of the Institution shall monitor the evaluation process
3. Performance of students in each Add on course of study shall be evaluated based on
    - Midterm internal assessment and
    - Assessment at the end of the course.
4. Each Add on course, shall be evaluated for a maximum of 100 marks.
5. The weightage for questions may be as follows.
    - Part A: Objective Type Questions
    - Part B: Design/Prototype development/Mini projects/etc.
6. The question paper may be set with
    - 40% of questions to test the memory skills & the capacity to understand concepts.
    - 60% % of questions to the ability to apply, create, analyse and evaluate concepts.

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DEPARTMENT OF MECHANICAL ENGINEERING

CourseOutcomes:

Thestudentswill be able to

CO1.Create and drive a mechanical gear assembly.

CO2.Create and modify a form-based design.

CO3.Use design tools for molded parts.

CO4.Demonstrate proficiency in the setup and creation of a design.

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DEPARTMENT OF MECHANICAL ENGINEERING

COPO Mapping

Course Outcome	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Create and drive a mechanical gear assembly	3	3			3			2		2	3	2
Create and modify a form-based design.	2	2	2									
Use design tools for molded parts.	3	2	3									
Demonstrate proficiency in the setup and creation of a design.	3	3	3					2		2	3	3

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DEPARTMENT OF MECHANICAL ENGINEERING

S.No	Title	TopicstobeCovered	T/R Books	PeriodsRequired	Remarks
1	Fusion 360 Assembly Modelling	Modelling concept and workflow	T	4	Online
2		Sketching with Dimention and Constraction Control	T	6	Online
3		Working With solids i) Extrusion ii) Revolution iii) Fillet & Chamber iv) Sweep and Loft.	T	6	Online
4		Editing your model	T	3	Online
5		Assemblies and Constraints	T	5	Online
6		Materials and Images	T	3	Online
7		Technical Drawing - Practice		6	Online
8		Technical Drawing - Practice	T	6	Online
9		Technical Drawing - Practice	T	6	Online

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DEPARTMENT OF MECHANICAL ENGINEERING

Text/ReferenceBooks	
1	Autodesk Fusion 360: A Power Guide for Beginners and Itermetiate Users (4th Edition) By john Willis, Sandeep Dogra, CADArtifex.2020
2	Autodesk Fusion360 :A Leaner's Guide (2nd edition) Sham Tickoo, BPB Publication,2020
Website/URLReferences	
1	https://academy.autodesk.com/course/137998/modeling-and-design-mechanical-engineers
2	https://academy.autodesk.com/campagigns/fusion-360-learning/webinar-gettingstarted
3	https://ww.autodesk.com/autodesk-university/class/Assemblies-putting-it-Together-fusion-360-2017

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DEPARTMENT OF MECHANICAL ENGINEERING

Sl.No	RegisterNo.	Name of theStudent	Status of Qualifying
1	311818114001	ADIL.M	Qualified
2	311818114003	AQIB AHAMED.A	Qualified
3	311818114004	ASIF. J	Qualified
4	311818114005	BHAVISH PRAVEEN KAYYA	Qualified
5	311818114007	FAYAZ HUSSAIN.T	Qualified
6	311818114008	IZASH AHAMED ALI.H	Qualified
7	311818114009	KABOOR SHALIP S	Qualified
8	311818114010	MANIKANDAN.R	Qualified
9	311818114011	MOHAMMED ASIF.S.S	Qualified
10	311818114012	MOHAMED FARIS. S	Qualified
11	311818114014	MOHAMMED MUBEEN.A	Qualified
12	311818114015	MOHAMED NIBRAS.M	Qualified
13	311818114017	MOHAMED SAMEER.S.R.	Qualified
14	311818114018	MOHAMED SHAFI.S	Qualified
15	311818114019	MOHAMMAD HAREES.S	Qualified
16	311818114020	MOHAMMED ADNAN.S	Qualified
17	311818114021	MOHAMED SADIQ BASHA	Qualified
18	311818114022	MOHAMMED ANSARI.A	Qualified
19	311818114023	MUHAMMED ZAHAN FAAIEQ.J	Qualified
20	311818114024	SHAHILA.P	Qualified
21	311818114025	YASAR ARAFATH.A	Qualified
22	311818114301	AFSAL NAJUMUDEEN	Qualified
23	311818114302	ARUN KUMAR. G	Qualified
24	311818114303	MOHAMED FAROOK FAYAS	Qualified
25	311818114304	PURUSHOTHAMAN O.B	Qualified
26	311818114305	SHAMEER. R	Qualified

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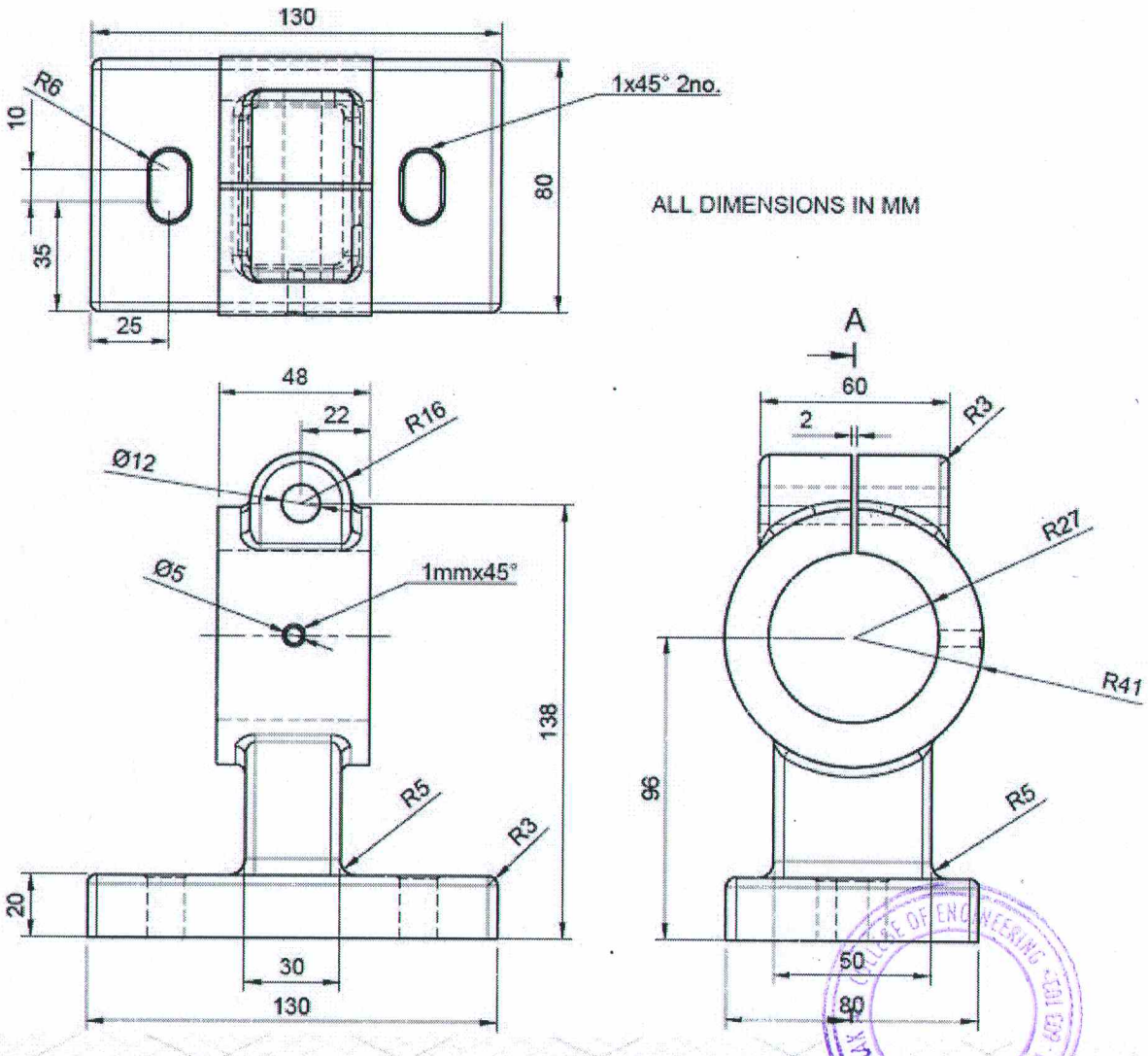
DEPARTMENT OF MECHANICAL ENGINEERING

Fusion 360 Assembly Modeling (VAC)
(Online)
Academic Year: 2020-21
III Year

Date: 07-06-2021 **Time: 1Hr**

1. Create the 3D model and assemble the parts of the following diagram using Autodesk fusion 360 (50 marks)



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Verified

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DEPARTMENT OF CIVIL ENGINEERING

From ,

Mr.M.B.Shanmuharajan
Head Of The Department
Department of Civil Engineering
Mohamed Sathak A.J.College of Engineering,
Chennai – 603103.

To

The Principal,
Mohamed Sathak A.J.College of Engineering,
Chennai – 603103.

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 Civil Engineering department. The selected courses are useful to the students for learning the emerging technical fields.

Kindly provide the permission for the same.

Year/Sem	Title	Dates
IV/VIII - Civil	3D Infrastructural Modeling	8/2/2021 to 12/2/2021

Thanking you

Place : Chennai
Date: 3/2/21

Your's faithfully
M.B.
M.B. SHANMUHARAJAN

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DEPARTMENT OF CIVIL ENGINEERING

From,

Mr.M.B.Shanmuharajan
Head Of The Department
Department of Civil Engineering
Mohamed Sathak A.J.College of Engineering,
Chennai – 603103.

To

The Principal,
Mohamed Sathak A.J.College of Engineering,
Chennai – 603103.

Respected Sir,

Sub: Assigning of faculty for VAC course curriculum design for the academic year 2020-2021 reg.

Ref: Letter of Requisition for the appointment of faculty for ADD on course curriculum design for the academic year 2020-2021 Dated 8/2/2021 to 12/2/2021.

The undersigned appreciates the department for proposing to conduct such kind of programme. As per your recommendation and referring to the above subject. I am pleased to nominate the following faculty members for ADD on course curriculum design.

The above listed faculty is hereby instructed to design the curriculum taking in to consideration the thrust areas of the respective field and ensure it should enhance the employability opportunities for the students.

Title	Name of the Faculty
3D Infrastructural Modeling	Mr.R.B.Rakesh AP/CIVIL

Thanking you

Place : Chennai
Date: 3/2/21

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Your's faithfully

M.B.

M.B.SHANMUHARAJAN

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DEPARTMENT OF CIVIL ENGINEERING

Date:3/2/2021

MSAJCE/CIVIL/COE/01/2020-2021

CIRCULAR

It is hereby informed to Final Year students of CIVIL department 3D Infrastructural Modelling is arranged from 8/2/2021 to 12/2/2021at BIM lab. All are advised to attend positively.

03/02/2021

Head of Department

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DEPARTMENT OF CIVIL ENGINEERING

COURSE MODULE
B.E CIVIL ENGINEERING (REGULATIONS 2017)
VALUE ADDED COURSE
3D INFRASTRUCTURAL MODELLING

L	T	P	C
1	0	2	2

OBJECTIVES:

- 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 in 3D Infrastructural Modeling.

Unit I : Introduction **9**

Introduction to 3D Infrastructural Modeling and Revit – Process- Creating a project - co-ordinate systems- reference planes. Commands: Initial settings- Drawing aids- Drawing basic entities- Modify commands- Layers - Text and Dimensioning- Blocks -Drawing presentation norms and standards.

Unit II :Creating of Floor Plan **9**

Creating walls- Level - Girds - Creating Terrain. Adding exterior walls-Adding a roof-Adding floor - Adding interior walls.

Unit III : Placing of Components **9**

Adding door- Adding windows- Adding components - Structural members - Using Model Builder in Infraworks- Creating a proposed street style - Creating a sketch road - Converting a sketch road to a design road - Creating a new design proposal and design road - Opening an Infraworks model in REVIT Civil 3D- Adding survey field data to the model.

Unit IV : Creating Documenting **9**

Documenting the Project –Sheets- Print – Schedules- Rooms - Areas and Legend.

Unit V :Creating Walkthrough **9**

Adding a curtain wall-Attaching walls to the roof-Solar study-Walkthrough –Lights-Creating elevation - Modifying the entry deck -Adding a sloped floor- Adding stairs and railings-Modifying the roof.

TOTAL: 45 HOURS

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OUTCOMES:

Upon completion of the course,

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 graphically/ visually as well as understand another person's designs.

TEXT 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,

REFERENCES:

1. Autodesk Revit 2017 MEP Fundamentals - SDC Publications.
2. Mastering Autodesk Revit MEP 2016. Autodesk Official Press, Simon Whitbread

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DEPARTMENT OF CIVIL ENGINEERING

Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	Introduction to 3D Infrastructural Modeling and Revit - Process	TB	1	Online
2	Creating a project	TB	1	Online
3	co-ordinate systems- reference planes.	TB	1	Online
4	Commands: Initial settings	RB	1	Online
5	Drawing aids	TB	1	Online
6	Drawing basic entities	TB	1	Online
7	Modify commands- Layers	TB	1	Online
8	Text and Dimensioning- Blocks	RB	1	Online
9	Drawing presentation norms and standards.	TB	1	Online
10	Introduction	RB	1	Online
11	Creating walls	RB	1	Online
12	Level	TB	1	Online
13	Girds	RB	1	Online
14	Creating Terrain	RB	1	Online
15	Adding exterior walls	TB	1	Online
16	Adding a roof	TB	1	Online
17	Adding floor	TB	1	Online
18	Adding interior walls.	TB	1	Online
19	Adding door, Adding windows	RB	1	Online

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20	Adding components - Structural members	TB	1	Online
21	Using Model Builder in Infraworks	TB	1	Online
22	Creating a proposed street style	TB	1	Online
23	Creating a sketch road	RB	1	Online
24	Converting a sketch road to a design road	TB	1	Online
25	Creating a new design proposal and design road	TB	1	Online
26	Opening an Infraworks model in REVIT Civil 3D	TB	1	Online
27	Adding survey field data to the model.	TB	1	Online
28	Introduction of Creating Documenting	RB	1	Online
29	Documenting the Project	RB	1	Online
30	Continuation of Documenting the Project	RB	1	Online
31	Excersice of Documenting the Project	RB	1	Online
32	Sheets	RB	1	Online
33	Print	RB	1	Online
34	Schedules	RB	1	Online
35	Rooms	RB	1	Online
36	Areas and Legend	RB	1	Online
37	Adding a curtain wall	TB	1	Online
38	Attaching walls to the roof	TB	1	Online
39	Solar study	TB	1	Online
40	Walkthrough –Lights	TB	1	Online
41	Creating elevation	TB	1	Online
42	Modifying the entry deck	TB	1	Online
43	Adding a sloped floor	TB	1	Online

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44	Adding stairs and railings	TB	1	Online
45	Modifying the roof	TB	1	Online

Quiz / Mini Projects / Model Develpoed if any	
Quiz Conducted	
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

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DEPARTMENT OF CIVIL ENGINEERING

Value added course summary 2020-21

Course code and Name : CVA034-3D Infrastructural Modelling

Course Duration : 45 Hours

Year offered : IV year Students 2020-21

Course Instructor : Mr.R.B.Rakesh AP/CIVIL

Course Outcome :

Upon completion of the course,

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 graphically/ visually as well as understand another person's designs.

Course Type : **Anna University one credit Value added course**

Theory and Practical with Hands on sessions

Assessment Mode :

Attendance : 45 Hours

No. of Participants : 18

Scheme of Exam : MCQ Online through GCR

Date of Exam : 15/2/2021

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

R.B. Rakesh

Course Coordinator

M.B.

HoD

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DEPARTMENT OF CIVIL ENGINEERING

Academic year 2020 – 2021

Enrolled Student Name List

Sl.No	Name of theStudent	Register No.	Certificate Program 3D-Infrastructural Modelling
1	AMSHA AFRIDEEN .A	311817103001	✓
2	ANTONY DARSHAN A	311817103002	✓
3	ARUN.M	311817103003	✓
4	FAREED AHAMED .S	311817103005	✓
5	IJAS AHAMED P.M.	311817103006	✓
6	ISMATH ALI. M	311817103007	✓
7	JAFFER ABBAS M.A.	311817103008	✓
8	KISHORE KUMAR.R	311817103009	✓
9	KISHORE KUMAR.S	311817103010	✓
10	MOHAMED SAMEEM MOHIDEEN	311817103014	✓
11	MOHAMED SHAHEEM S.B	311817103015	✓
12	MOHAMED TAJAMMUL	311817103016	✓
13	MOHAMED UMAR .M	311817103017	✓
14	MOHAMMED AMEEN.A	311817103018	✓
15	MOHAMMED ISMAAIL.S	311817103019	✓
16	SURENDER .M	311817103025	✓
17	SYED MOHAMMED USAID MOHIUDDIN	311817103026	✓
18	NAINA MOHAMED BASIDH	311817103701	✓

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Sl.No	Name of theStudent	Register No.	8/2/21	9/2/21	10/2/21	11/2/21	12/2/21
1	Amsha Afrideen .A	311817103001	✓	✓	✓	✓	✓
2	Antony Darshan A	311817103002	✓	✓	✓	✓	✓
3	Arun.M	311817103003	✓	✓	a	✓	✓
4	Fareed Ahamed .S	311817103005	✓	✓	✓	✓	✓
5	Ijas Ahamed P.M.	311817103006	✓	✓	✓	✓	✓
6	Ismath Ali. M	311817103007	✓	✓	✓	✓	✓
7	Jaffer Abbas M.A.	311817103008	✓	✓	✓	✓	✓
8	Kishore Kumar.R	311817103009	a	✓	✓	✓	✓
9	Kishore Kumar.S	311817103010	✓	✓	✓	✓	✓
10	Mohamed Sameem Mohideen	311817103014	✓	✓	✓	✓	✓
11	Mohamed Shaheem S.B	311817103015	✓	✓	✓	✓	✓
12	Mohamed Tajammul	311817103016	✓	✓	✓	✓	✓
13	Mohamed Umar .M	311817103017	✓	✓	✓	✓	✓
14	Mohammed Ameen.A	311817103018	✓	✓	✓	✓	✓
15	Mohammed Ismaail.S	311817103019	✓	✓	✓	✓	✓
16	Surender .M	311817103025	✓	✓	✓	✓	✓
17	Syed Mohammed Usaid Mohiuddin	311817103026	✓	✓	✓	✓	✓
18	Naina Mohamed Basidh	311817103701	✓	✓	✓	a	✓

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Assessment

1. Which command is used to place a free- standing element, such as furniture?
   a) Component
   b) Repeating Detail
   c) Model-In-Place
   d) Detail Components
2. Which statement is FALSE about stair sketches?
   a) Boundary lines must be open lines
   b) Risers must be parallel
   c) The user is provided with the desired riser count
   d) All riser lines must touch the boundary lines
3. Detail Level Can Be Adjusted In 3d Views Using The?
   a) Detail button at the bottom of the window.
   b) Detail button at the top of the window.
   c) Both
   d) None
4. In which view type can place a level?
   a) Floor Plan
   b) 3D
   c) Elevation
   d) Ceiling Plan
5. What does the small triangle next to the roof boundary line indicate in the roof sketch?
   a) Overhang
   b) Height
   c) Slope
   d) Orientation
6. Walls are system families. Which is not a wall family?
   a) Basic
   b) Complicated
   c) Curtain
   d) Staked
7. Which is not a dimension style?
   a) Linear
   b) Angular
   c) Temporary
   d) Radial
8. How Do You Make Custom Holes And Edges On Walls?
   a) Floor Plan
   b) 3D
   c) Elevation
   d) Ceiling Plan
9. What Is A First Step In Creating A Roof?
   a) Created with 2D closed-loop sketch of the roof perimeter
   b) Can use base and top level to define roof geometry
   c) Slopes are defined when you apply a slope parameter to sketch lines
   d) Use polylines to define the boundary.

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10. Where Can You Set Keyboard Shortcuts?
    a) View>User Interface>Keyboard Shortcuts
    b) View tab>Windows panel>User Interface>Keyboard Shortcuts
    c) Options>Keyboard Shortcuts
    d) Home>Options>Keyboard Shortcuts
11. How Do You Quickly Add Trim To Walls In 3d Views?
    a) Use Array tool
    b) Use Copy tool
    c) Use the wall sweep tool.
    d) All of the above
12. Which of the following element(s) have the ability to edit in 3d mode?
    a) Roofs
    b) Floors
    c) Ceilings
    d) All of the above
13. Which tab contains the window tool?
    a) Architecture
    b) Modify
    c) View
    d) Insert
14. Which of the following do you not need to specify when you create custom stair?
    a) Ref plane
    b) Run
    c) Boundary
    d) Riser
15. families are the building components that would usually be purchased, delivered, and installed in and around a building, such as doors, windows and furniture.
    a) In-place
    b) Basic
    c) System
    d) Loadable
16. Select the view in which you can create rooms.
    a) Section
    b) 3D view
    c) Ceiling plan
    d) Elevation
17. How Do You Quickly Focus The Camera On A Specific Object?
    a) Right click on the object and zoom to fit.
    b) Double click on the object and zoom to fit.
    c) Both
    d) None
18. Where Do You Change A Wall Sweep's Profile?
    a) Type Properties dialog.
    b) Type Modify dialog.
    c) Type Geometry dialog.
    d) All the above

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19. How Can You Insert 2d Cad Files In Your 3d Model?
    a) Select Whole plan
    b) Go to the appropriate floor, click insert CAD files.
    c) Both
    d) None
20. Which key rotates a component counter clockwise by 90 degrees?
    a) ALT
    b) SPACEBAR
    c) ENTER
    d) CTRL
21. What is the short key of Mirror - Pick axis?
    a) M
    b) DM
    c) MM
    d) MI
22. What is the short key of Mirror - Draw axis?
    a) M
    b) MD
    c) MM
    d) DM
23. What is the short key of Offset?
    a) O
    b) OF
    c) OS
    d) OT
24. What is the short key of Rotate?
    a) R
    b) RO
    c) ROT
    d) RT
25. What is the short key of Array?
    a) A
    b) AR
    c) AY
    d) ARR

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EVALUVATION SHEET

1. Which command is used to place a free- standing element, such as furniture?
   a) Component
   b) Repeating Detail
   c) Model-In-Place ✓
   d) Detail Components
2. Which statement is FALSE about stair sketches?
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11. How Do You Quickly Add Trim To Walls In 3d Views?

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12. Which of the following element(s) have the ability to edit in 3d mode?

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b) Modify

c) View ✓

d) Insert

14. Which of the following do you not need to specify when you create custom stair?

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21. What is the short key of Mirror - Pick axis?

a) M
b) DM ✓
c) MM
d) MI

22. What is the short key of Mirror - Draw axis?

a) M
b) MD
c) MM ✓
d) DM

18/25

23. What is the short key of Offset?

a) O
b) OF ✓
c) OS
d) OT

24. What is the short key of Rotate?

a) R
b) RO ✓
c) ROT
d) RT

25. What is the short key of Array?

a) A
b) AR ✓
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2	ANTONY DARSHAN A	311817103002	Qualified
3	ARUN.M	311817103003	Qualified
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8	KISHORE KUMAR.R	311817103009	Qualified
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18	NAINA MOHAMED BASIDH	311817103701	Qualified

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DEPARTMENT OF MECHANICAL ENGINEERING

From

Mr.G.Ramesh,
Associate Professor,
Department of Mechanical Engineering,
Mohamed Sathak A.J.College of Engineering,
Chennai – 603103.

To

The Principal,
Mohamed Sathak A.J.College of Engineering,
Chennai – 603103.

Respected Madam/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 Mechanical department. The selected courses are useful to the students for learning the emerging technical fields.

Kindly provide the permission for the same.

Year/Sem	Title	Dates
IV/VIII-Mechanical	Introduction to Multibody Dynamics	05.04.2021 to 16.04.2021

Thanking you

Place : Chennai
Date: 20.03.2021

Your's faithfully

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Principal

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DEPARTMENT OF MECHANICAL ENGINEERING

From ,

Mr.G.Ramesh,

Associate Professor,

Department of Mechanical Engineering,

Mohamed SathakA.J.College of Engineering,

Chennai – 603103.

Respected Madam/Sir,

Sub: Assigning of faculty for VAC course curriculum design for the academic year 2020-2021-Reg

Ref: Letter of Requisition for the appointment of faculty for ADD on course curriculum design for the academic year 2020-2021Dated:05.04.2021 to 16.04.2021.

The undersigned appreciates the department for proposing to conduct such kind of programme. As per your recommendation and referring to the above subject. I am pleased to nominate the following faculty members for ADD on course curriculum design.

The above listed faculty is hereby instructed to design the curriculum taking in to consideration the thrust areas of the respective field and ensure it should enhance the employability opportunities for the students.

Title	Name of the Faculty
Introduction to Multibody Dynamics	Mr.J.Jabin AP/MECH

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Ref:MSAJCE/VAC02MECH/2020-2021

Date: 22.03.2021

CIRCULAR

Our department is organizing a "ADD ON " on Introduction to Multibody Dynamics during 05.04.2021 to 16.04.2021 The following III Year Mechanical Students register with Mr.J.Jabin AP/MECH on or before 25.03.2021.

The session schedule is as follows

Timing: 9.00 AM to 3.30 PM

Venue: GF 103 ALTAIR LAB

HoD
Head of the Department
Department of Mechinical Engineering
Mohamed Sathak A.J.College of Engineering
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Copy to:
Dept. of Mechanical
IV Year Mechanical

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DEPARTMENT OF MECHANICAL ENGINEERING

COURSE MODULE

Course Objectives:

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.

MODULE

1	The method of constraints for planar kinematic analysis
2	Revolute, prismatic, gear and cam pairs are considered together with other 2 DOF
3	Introduction to Basic principles for analysis of multi-body systems
4	The automatic assembly of the systems of equations for position
5	The principle of virtual work and Lagrange's equations
6	Introduction to Dynamies of Planar Systems
7	Systematic computation and assembly of mass matrix
8	Computation of planar generalized forces for external forces and for actuator-spring-damper element
9	Simple applications of inverse and forward dynamic analysis
10	Numerical integration of first-order initial value problems
11	The method of Baumgarte for the solution of mixed differential-algebraic equations of motion
12	The use of coordinates partitioning, QR and SVD decomposition for the orthogonalization of constraints
13	Reference frames for the location of a body in space
14	Euler angles and Euler parameters
15	Kinematic analysis of spatial systems
16	Equations of motion of constrained spatial systems
17	Exercise

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Course Outcome

Upon completion of the course,

Write programs to solve constrained differential equations for systems analyzing multi-body

Simulate and analyze all types of static behaviours of the multi-body systems including the kineto- static analysis.

Simulate and analyze all types of dynamic behaviours of the multi-body systems including the kineto-static analysis.

To derive equations of motion for interconnected bodies in multi-body systems with three-dimensional motion.

To Implement and analyze methods of formulating equations of motion for Inter-connected bodies.

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CO PO Mapping

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Write programs to solve constrained differential equations for systems analyzing multi-body.	3	3			3			2		2	3	2
Simulate and analyze all types of static behaviours of the multi-body systems including the kineto- static analysis..	2	2	2									
Simulate and analyze all types of dynamic behaviours of the multi-body systems including the kineto-static analysis.	3	2	3									
To derive equations of motion for interconnected bodies in multi-body systems with three-dimensional motion.	3	3	3					2		2	3	3
To Implement and analyze methods of formulating equations of motion for Inter-connected bodies.	3	3										3

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Sl. No.	Topic	T / R* Book	Periods Required	Mode of Teaching
1	The method of constraints for planar kinematic analysis	T	1	PPT & Video
2	Revolute, prismatic, gear and cam pairs are considered together with other 2 DOF	T	2	PPT & Video
3	Introduction to Basic principles for analysis of multi-body systems	T	1	PPT & Video
4	The automatic assembly of the systems of equations for position	T	2	PPT & Video
5	The principle of virtual work and Lagrange's equations	T	1	PPT & Video
6	Introduction to Dynamies of Planar Systems	T	1	PPT & Video
7	Systematic computation and assembly of mass matrix	T	2	PPT & Video
8	Computation of planar generalized forces for external forces and for actuator-spring-damper element	T	1	PPT & Video
9	Simple applications of inverse and forward dynamic analysis	T	2	PPT & Video
10	Numerical integration of first-order initial value problems	T	1	PPT & Video
11	The method of Baumgarte for the solution of mixed differential-algebraic equations of motion	T	2	PPT & Video
12	The use of coordinates partitioning, QR and SVD decomposition for the orthogonalization of constraints	T	2	PPT & Video
13	Reference frames for the location of a body in space	T	1	PPT & Video
14	Euler angles and Euler parameters	T	2	PPT & Video
15	Kinematic analysis of spatial systems	T	2	PPT & Video
16	Equations of motion of constrained spatial systems	T	2	PPT & Video
17	Exercise	T	5	Software

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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

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Sl.No	Name of the Student	Register No.	Status of Qualifying
1	ABDUL BASIT	311817114002	**Pass**
2	ABDUL MUKSHITH. A	311817114003	**Pass**
3	ABDUL RAHIM A.K	311817114004	**Pass**
4	ABDUL WAHAB. A	311817114006	**Pass**
5	AHAMED MUKSHITH. M	311817114009	**Pass**
6	AKASH. R	311817114011	**Pass**
7	ARUN PRASATH. R	311817114013	**Pass**
8	ATHEEQ MOHAMMED OWAIZ	311817114014	**Pass**
9	AZBAQ MEERAN. F	311817114015	**Pass**
10	CHANDRASEKAR. G	311817114016	**Pass**
11	GANDHI SUBASH. K	311817114018	**Pass**
12	IMRAN .L	311817114022	**Pass**
13	JAMALUL ASHRAQ. I	311817114023	**Pass**
14	KARTHICK KUMAR. M	311817114025	**Pass**
15	KIREESH KARAN. R	311817114026	**Pass**
16	MANIKANDA VENKATARAMAN. G	311817114027	**Pass**
17	MANOJ KUMAR. K	311817114028	**Pass**
18	MOHAMED ABUBAKKER SIDDIQ. S	311817114029	**Pass**
19	MD ALI HASAN SEYED ABUTHAHIR	311817114030	**Pass**
20	M. MOHAMED ASKAR	311817114032	**Pass**
21	J. MOHAMED FAHIM	311817114033	**Pass**

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22	A. MOHAMED IRFAN	311817114034	**Pass**
23	J. MOHAMED IRFAN	311817114035	**Pass**
24	S. MOHAMED IRFAN ALI	311817114036	**Pass**
25	M. MOHAMED JAVIDH	311817114037	**Pass**
26	MOHAMED MUSRAF B A	311817114040	**Pass**
27	MOHAMED REEFDEEN	311817114041	**Pass**
28	MOHAMED SATHIK. A	311817114042	**Pass**
29	MOHAMED SUHAIL. M	311817114043	**Pass**
30	MOHAMED YUSUF. J	311817114044	**Pass**
31	MOHAMMED FAYAAS. H	311817114045	**Pass**
32	MOHAMMED ZAIN. J	311817114047	**Pass**
33	MUHAMED SUFYAN. J	311817114048	**Pass**
34	PANDIDURAI. R	311817114050	**Pass**
35	SABIK MOHAMMED. S	311817114051	**Pass**
36	SAJIDULLAH. K	311817114052	**Pass**
37	SHAKESPEAR. N	311817114054	**Pass**
38	SYED.N.ZAHEER ABBAS	311817114056	**Pass**
39	USAMA. A	311817114057	**Pass**
40	L GOKUL	311817114301	**Pass**
41	IBRAHIM A	311817114302	**Pass**
42	JAVAHAR SHALIM	311817114303	**Pass**
43	MOHAMED FARDHAAN	311817114304	**Pass**
44	MOHAMMED NABEEL	311817114305	**Pass**

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B.E./B.Tech. DEGREE EXAMINATIONS, APR/MAY.-2021

Regulation – 2017

B.E Mechanical Engineering

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

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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

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

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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

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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

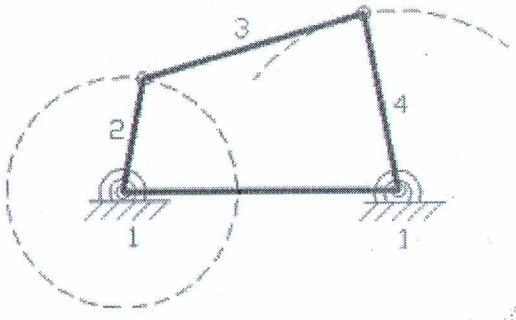
Answer All Questions

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

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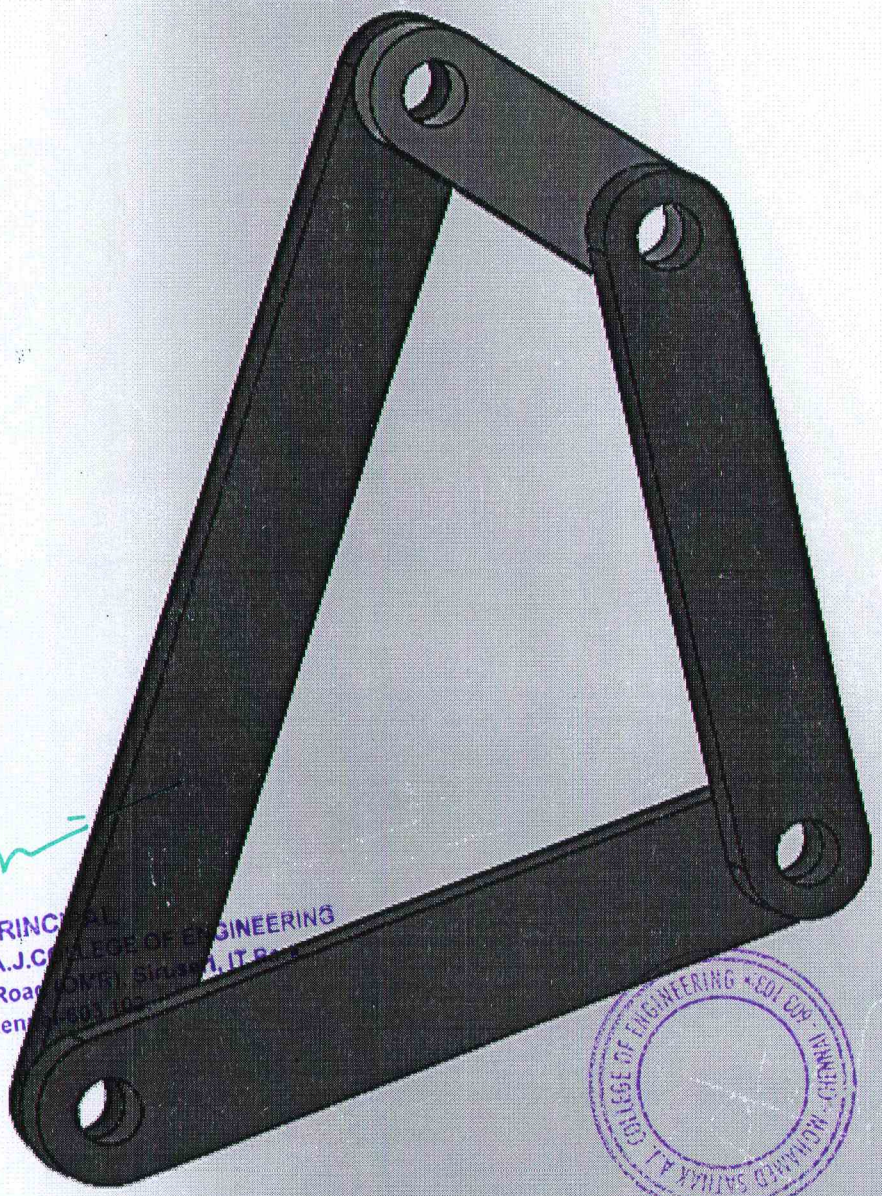

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Circular

Ref: MSAJCE / PO -102/ 2020-2021 **Date: 10.8.2020**

It is hereby informed that the following faculty members has been nominated as members to the design the syllabus for the Add-on Course / Value added course " **PC Hardware Networking & Troubleshooting**"

S.NO	Faculty Name	Designation
1	Dr. P. Subramanian	Associate Professor
2	Ms. V.Rajathi	Assistant Professor

All are requested to design the syllabus for the above mentioned course and submit on or before 13.8.2020.

Principal

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Circular

Ref: MSAJCE / PO 106 / 2020-2021 **Date:18.8.2020**

It is hereby informed that the following faculty members to attend the Internal syllabus review meeting on 20.8.2020 at Board room to review the syllabus for the Add-on Course / Value added course **"PC Hardware Networking & Troubleshooting".**

S.No	Faculty	Designation
1	Dr. E.Dhiravidachelvi	Head -Academic
2	Dr. I.Manju	Head - TC & IR
3	Mr.Prasath	Head - Placement
4	All HoDs	

All are requested to be available for the meeting.

18.08.2020

Principal

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DEPARTMENT OF SCIENCE & HUMANITIES

Ref:01/MSAJCE/S&H/EVEN/2020-2021

Date: 20/02/2021

CIRCULAR

It is hereby informed to all the 1st Year students that the value-added coursé **"PC Hardware Networking & Troubleshooting"** during 08/03/2021 to 12/03/2021. All are advised to attend the training course without fail.

The session schedule is as follows

Timing: 9.00 AM to 3.30 PM

Resource Person: Mrs. V. Rajathi

Mode : Online Mode – GCR				
Faculties	Mrs. V. Rajathi	Mrs. M. Ramya	Mrs. S. Aruna	Mr. M. Eswara Narayanan

HoD

COPY TO: S&H
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COURSE MODULE

Course Objectives:

1.To characterize a problem.
2.To develop a programing skill to solve the problem.
3.To acquire basic knowledge in computer hardware and peripherals.
4.To acquire knowledge about PC assembling.
5. To generate basic knowledge of Internet and Intranet.

MODULE-1: Basic computer
Organization of computer – software and hardware – Input / Output devices

MODULE-2: Basic networking concepts
Network technologies – LAN, WAN, MAN, PAN, CAN – Networking model – OSI model – TCP/ IP model – Networking adapters.

MODULE-3: Inside the PC
Identification of PC – Study of different blocks – Assembling and disassembling

MODULE-4: Networking devices
Routers – switches – modems – Hubs etc.. – Wired and Wireless technology

MODULE -5: Network basic and configuration
Setting IP Addresses – sharing files and folders – network troubleshooting

Course Outcomes:

The students will be able to

CO1. Student should able to know Basics of computer assembling.

CO2. Students will have in-depth knowledge of networking models.

CO3. The student will able to know the basic of troubleshooting.

CO4. Students will have brief knowledge of networking devices.

CO5. The student will able to know the basic of networks and configuration.

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Assessment Procedure for Add-on Courses / value Added Courses

1. Two Assessments shall be conducted during the semester by the course co-ordinator concerned.
2. A committee consisting of the Head of the Department, staff handling the course and a senior Faculty member nominated by the Head of the Institution shall monitor the evaluation process
3. Performance of students in each Add on course of study shall be evaluated based on
    - Midterm internal assessment and
    - Assessment at the end of the course.
4. Each Add on course, shall be evaluated for a maximum of 100 marks.
5. The weightage for questions may be as follows.
    - Part A: Objective Type Questions
    - Part B: Design/Prototype development/Mini projects/etc.
6. The question paper may be set with
    - 40% of questions to test the memory skills & the capacity to understand concepts.
    - 60% % of questions to the ability to apply, create, analyse and evaluate concepts.

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CO PO Mapping

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Hardware and software of system	3	2	3	3				2		3	2	3
Have in-depth knowledge of network topologies.	3	2	3	2	2							
Basic of computer troubleshooting	3	2	3	2	3							
knowledge about computer networking.	3	3	3		2			3		2	3	3
Basic of networks and configuration	3	2	3		3							3

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S.No	Title	Topics to be Covered	T/R Books	Periods Required	Remarks
1	Basics	Organization	T1/Website	1	PPT
		Hardware and Software	T1/Website	2	BB
2	Input / Output devices	Keyboard, Joystick, mouse	T1/Website	1	PPT
		Printer, scanner, monitor	T1/Website	2	BB
3	Network Technologies	LAN, WAN, MAN	T1/Website	2	PPT
		PAN, CAN	T1/Website	2	BB
4	Networking model	OSI model	T1/Website	2	PPT
		TCP/ IP Model	T1/Website	2	PPT
5	Inside PC	Identification of PC	T1/Website	2	PPT
		Different blocks	T1/Website	2	BB
6	Networking devices	Router, Modem,	T1/Website	2	PPT
		Switches, hubs	T1/Website	2	BB
7	Wired and wireless technologies	Network, cable	T1/Website	1	PPT
		Satellite communication, wifi	T1/Website	2	BB

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8	Network	Network basic	T1/Website	1	PPT
		Configuration	T1/Website	2	PPT
9	Basic	IP Adress setting	T1/Website	1	PPT
		Sharing files and folders	T1/Website	2	PPT

Text / Reference Books	
1	COMPUTER HARDWARE: Installation, Interfacing, Troubleshooting and Maintenance BY K.L James (Author)
Website / URL References	
1	https://www.pluralsight.com/courses/computer-fundamentals-hardware-network-troubleshooting
2	https://www.pluralsight.com/blog/tutorials/troubleshooting-hardware

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Assessment on PC Hardware Networking and Troubleshooting

* Required

1. E-mail *

2. Name of the student *

3. Register number *

4. 1. What is computer organization? *

Mark only one oval.

- structure and behaviour of a computer system as observed by the user structure of
- a computer system as observed by the developer structure and behaviour of a
- computer system as observed by the developer
- All of the mentioned

5. 2. Which of the following is a type of computer architecture? *

Mark only one oval.

- Microarchitecture
- Harvard Architecture
- Von-Neumann Architecture
- All the above

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6. 3. Which of the following is the subcategories of computer architecture? *

Mark only one oval.

- Microarchitecture
- Instruction set architecture
- Systems design
- All the above

7. 4. A device that allows users to feed data into a computer for analysis and * storage and to give commands to the computer is called *Mark only one oval.*

- Input
- Output
- Memory
- Both A and B

8. 5. Which of the following is not a pointing device? *

Mark only one oval.

- Mouse
- Joystick
- Light pen
- Digitizer

9. 6. The number of function keys in a keyboard is *

Mark only one oval.

- 14
- 10
- 13
- 15

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10. 7. Ctrl, Shift, and Alt are known as _ _ _ _ _ _ _keys. *

Mark only one oval.

- function modifier
- alphanumeric
- adjustment
-

11. 8. LAN works on which of the following layers? *

Mark only one oval.

- physical datalink
- datalink and network
- physical and datalink
-

12. 9. Ether LAN uses *

Mark only one oval.

- Polar encoding Manchester
- encoding differential Manchester
- encoding
- NRZ

13. 10. Which of the following is Layer-7? *

Mark only one oval.

- Presentation Layer
- Session Layer
- Application Layer Transport
- Layer

14. 11. HTTP is an example of? *

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Mark only one oval.

- Session Layer
- Presentation Layer
- Data Link Layer
- Application Layer

15. 12. The physical layer concerns with *

Mark only one oval.

- bit-by-bit delivery process to
- process delivery application to
- application delivery
- None of the above

16. 13. With ....., switches can divide into multiple Broadcast Domians. *

Mark only one oval.

- STP
- Other swicthes
- VLANs
- Hubs

17. 14. Which ones are Hub types? *

Mark only one oval.

- Standard Hub
- Active Hub
- Routed Hub
- Passive Hub

18. 15. What is the purpose of an IP Address? *

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Mark only one oval.

- A unique identifier for a computer
- A unique location identifier
- A network location identifier
- None

19. 16. There are -------- bits in an octet *

Mark only one oval.

- 8
- 5
- 4
- 9

20. 17. What is the name of the type of notation an IP address is usually written? *

Mark only one oval.

- Dot
- Dotted quad
- Quad
- None

21. 18. Given the network mask id of 255.255.240.0, how many hosts are there? *

Mark only one oval.

- 256
- 100
- 4094
- 192.168.250.252

22. 19. The full form of IP in IP Address is _____. *

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Mark only one oval.

- Internet Provider address
- Internet Protocol address
- Internet Processing address
- None

23. 20. DHCP stands for_____ *

Mark only one oval.

- Dynamic Host Control Protocol
- Dynamic Host Configuration Protocol
- Digital Host Configuration Protocol
- Digital Host Control Protocol

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S.NO	NAME OF THE STUDENT	REGISTER NO.	STATUS OF QUALIFYING
1	Abuthagir J	311820114001	Qualified
2	Arun T	311820114002	Qualified
3	Dinesh M	311820114003	Qualified
4	Imthiyas A	311820114004	Qualified
5	Manikandan K	311820114005	Qualified
6	Mohamed Afrose M	311820114006	Qualified
7	Mohamed Ajmal A.R.	311820114007	Qualified
8	Mohamed Ghouse Naguth M	311820114008	Qualified
9	Mohamed Ijaz M	311820114009	Qualified
10	Mohamed Ilias S	311820114010	Qualified
11	Mohamed Ismail A	311820114011	Qualified
12	Mohammad Sathakkathullah M	311820114012	Qualified
13	Mohammed Mansoor S	311820114013	Qualified
14	Sadham Hussain J	311820114014	Qualified
15	Salman S	311820114015	Qualified
16	Shaik Yahope B	311820114016	Qualified
17	Syed Mohammed Sufiyan S	311820114017	Qualified
18	Umar Jaffer Ali A	311820114018	Qualified
19	Habeeb Musthafa M N	311820103001	Qualified
20	Mohamed Fahim S	311820103002	Qualified
21	Rajesh N	311820103003	Qualified
22	Yogaraj M	311820103004	Qualified
23	Abinaya K	311820106001	Qualified
24	Abitha B	311820106002	Qualified
25	Aflal Ahamed M	311820106003	Qualified
26	Ahmad Syed Semar	311820106004	Qualified
27	Amudeshwaran S	311820106005	Qualified
28	Basharathulla	311820106006	Qualified
29	Carol Persy N	311820106007	Qualified
30	Faslin Banu M	311820106008	Qualified
31	Janani M.E	311820106009	Qualified
32	Jaseem Mohamed P	311820106010	Qualified
33	Kishore S	311820106011	Qualified
34	Madhivanan R	311820106013	Qualified
35	Mohamed Mukshith N	311820106014	Qualified
36	Muthu Akmal M S	311820106015	Qualified
37	Nirmal K	311820106016	Qualified

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41	Sathesh Kumar V	311820106020	Qualified
42	Shahrukh Fakrudeen	311820106021	Qualified
43	Shaik Abdulla A S	311820106022	Qualified
44	Subhash B	311820106023	Qualified
45	Suryaprakash S	311820106024	Qualified
46	Thanveer Sheriff A	311820106025	Qualified
47	Vamsi Krishna G V	311820106026	Qualified
48	Arshad K	311820105001	Qualified
49	Asslam A	311820105002	Qualified
50	Divya Sri S	311820105003	Qualified
51	Harishankar V	311820105004	Qualified
52	Imran R	311820105005	Qualified
53	Mohamed Rasith M	311820105006	Qualified
54	Mohamed Sahee M	311820105007	Qualified
55	Mohammed Thouseef Quraishi	311820105008	Qualified
56	Swetha Maria Faustina S	311820105009	Qualified
57	Syed Harrun S	311820105010	Qualified
58	Thoufiq Ahamed T	311820105011	Qualified
59	Thowfiq M	311820105012	Qualified
60	Abdullah S	311820205001	Qualified
61	Abdul Sukkoor Nafees	311820205002	Qualified
62	Abirami V	311820205003	Qualified
63	Abubacker Sideeq S M	311820205004	Qualified
64	Aishwarya R	311820205005	Qualified
65	Anas Ahamed A	311820205006	Qualified
66	Arun Kumar A	311820205007	Qualified
67	Boobalan V	311820205008	Qualified
68	Hemalatha C	311820205009	Qualified
69	Imaam Jaffar J	311820205010	Qualified
70	Jaasir Ahamed A J	311820205011	Qualified
71	Jameerudeen F	311820205012	Qualified
72	Keerthana S	311820205014	Qualified
73	Lavanya S	311820205015	Qualified
74	Manish Kumar A	311820205016	Qualified
75	Mohamed Afsar M	311820205017	Qualified
76	Mohamed Asif H	311820205018	Qualified
77	Mohamed Ghazali P	311820205019	Qualified
78	Mohamed Sidiq I	311820205020	Qualified

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80	Mohammed Farhan S M	311820205022	Qualified
81	Mohammed Fuyujurrahman S A	311820205023	Qualified
82	Mohammed Hashirhasan K	311820205024	Qualified
83	Mubarak Ali J	311820205025	Qualified
84	Muhammed Midlaj A C	311820205026	Qualified
85	Nanthini R	311820205027	Qualified
86	Packeer Mohideenfaheem S	311820205028	Qualified
87	Pavithraa S	311820205029	Qualified
88	Poovarasan R	311820205030	Qualified
89	Prabha M	311820205031	Qualified
90	Pramoth M	311820205032	Qualified
91	Punniyakotti S	311820205033	Qualified
92	Rafiq Sheriff S	311820205034	Qualified
93	Rahimunnisa S	311820205035	Qualified
94	Rajesh R	311820205036	Qualified
95	Revathi U	311820205037	Qualified
96	Rohith V	311820205038	Qualified
97	Salaahuddeenfakhruddin Ismail	311820205040	Qualified
98	Seyed Mohamed Buhary M H	311820205041	Qualified
99	Shalini M	311820205042	Qualified
100	Sivaprakasam N	311820205043	Qualified
101	Supraja V	311820205044	Qualified
102	Syed Abbas Afrid M	311820205045	Qualified
103	Syed Abbas Ali J	311820205046	Qualified
104	Syed Ali S	311820205047	Qualified
105	Syed Anees A	311820205048	Qualified
106	Vasanth Kumar S	311820205049	Qualified
107	Vishal A	311820205050	Qualified
108	Zamil K	311820205051	Qualified
109	Abdul Kadar Jailani J	311820104001	Qualified
110	Abinaya Bharathi M	311820104002	Qualified
111	Abish K	311820104003	Qualified
112	Abrar Musharraf P	311820104004	Qualified
113	Althaf J	311820104005	Qualified
114	Arsath Khan A	311820104006	Qualified
115	Arshad Ahmed M Y	311820104007	Qualified
116	Arun G	311820104008	Qualified
117	Aysha Thaslim A	311820104009	Qualified
118	Dilipan D G	311820104010	Qualified
119	Elango V	311820104011	Qualified

Principal
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120	Elangovan G	311820104012	Qualified
121	Imraan H	311820104013	Qualified
122	Jaleel Ahamed K	311820104014	Qualified
123	Karan R	311820104015	Qualified
124	Lalith Adithyan H	311820104016	Qualified
125	Mohamed Abdul Kalam S	311820104017	Qualified
126	Mohamed Asiq Ali A	311820104018	Qualified
127	Mohamed Hanifa Harish P	311820104019	Qualified
128	Mohamed Jashim A	311820104020	Qualified
129	Mohamed Nabeel A	311820104021	Qualified
130	Mohamed Nowfees A	311820104022	Qualified
131	Mohamed Salman A	311820104023	Qualified
132	Mohammed Haseeb Rakshan P	311820104024	Qualified
133	Mohammed Khaja Nawaz A	311820104025	Qualified
134	Mohammed Rizwan K R	311820104026	Qualified
135	Mohammed Siddique C	311820104027	Qualified
136	Musharaf Mubeen A	311820104028	Qualified
137	Naveen Kumar S	311820104029	Qualified
138	Nithishkumar S	311820104030	Qualified
139	Rashid C K	311820104031	Qualified
140	Riswan M	311820104032	Qualified
141	Sakthivel K H	311820104033	Qualified
142	Sathish S	311820104034	Qualified
143	Shaikh Zaith R	311820104035	Qualified
144	Sulthan Nifan S	311820104036	Qualified
145	Vasumathi A	311820104037	Qualified
146	Vinith D	311820104038	Qualified
147	Vinitha M	311820104039	Qualified
148	Yogaraj S	311820104040	Qualified
149	Yuvan R K	311820104041	Qualified

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