



MOHAMED SATHAK A J COLLEGE OF ENGINEERING

Sponsored by Mohamed Sathak Trust

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

Siruseri IT Park, Egattur, Chennai 603 103

Add on/Certificate programs

Academic Year 2020 – 2021

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



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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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DEPARTMENT OF CIVIL ENGINEERING

Value added course summary 2020-2021

Course Name : 3D Infrastructural Modelling
Course Duration : 45 Hours
Year offered : IV Year 2020-21
Course Instructor : Mr R.B.Rakesh/CIVIL
Course Outcome :

Upon completion of the course, the students will be able to

1. Understand basic concepts of Infrastructure construction planning 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 Two credit Value added course**
Theory and Practical with Hands on sessions

Assessment Mode:

Attendance : 45 Hours
No. of Participants : 18
Scheme of Exam : Paper based Multiple choice question
Date of Exam : 13/02/2021



Course Coordinator



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HoD

[Mr M.B. Shanmuharajan]



SUMMARY REPORT

ACADEMIC YEAR 2020-2021

Name of the Course: Advanced Python and Introduction to Machine Learning

Name of the Coordinator: Mr.G.RamaMohanReddy

No. of Students Enrolled: 41

No. of Students Completed: 41

Course Period: 19-04-2021 to 29-04-2021

Course Objective:

- To Learn Advanced Mathematical libraries of python
- To understand data exploration and wrangling
- To Perform data visualization, exporting and importing file contents
- To understand basics of machine learning.

This Value Added Course on “Advanced Python and Introduction to Machine Learning” is conducted for both CSE & IT students as a part of co-curricular activities program. All registered students for this program were actively attended and learned throughout the duration of this program and successfully completed.

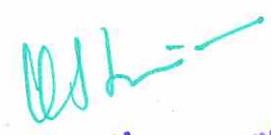
Course Outcome: Students shall be able to gain knowledge in

- Explain the different Numpy functions.
- Build the application on Pandas functions.
- Show the Plotting and Visualization.
- Develop the Object Oriented Programming.
- Judge the Machine Learning concepts.

Name: Mr.G.RamaMohanReddy

Designation: AP/IT


Head Training


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Department of EEE

SUMMARY REPORT

ACADEMIC YEAR 2020-2021

Name of the Course: Electric Vehicle

Name of the Coordinator: Mr.C.Venkatesh

No. of Students Enrolled: 5

No. of Students Completed: 5

Course Period: 12/4/21,17/4/21,23/4/21,27/4/21 to 30/4/21, 1/5/21,4/5/21 & 5/5/21.

Course Objective:

- To Present a comprehensive overview of Electric and Hybrid Electric Vehicle
- 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.

This Value Added Course on “Electric Vehicle ” is conducted for EEE students as a part of co-curricular activities program. All registered students, for this program were actively attended and learned throughout the duration of this program and successfully completed.

Course Outcome: After completion of 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 electric machines.
- Analysis the transmission characteristics and mathematical models of Electric Vehicles.
- Discuss the energy management strategies used in hybrid and electric vehicles.

Name: Mr.C.Venkatesh

Designation: AP/EEE

Co-Ordinator

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SUMMARY REPORT

ACADEMIC YEAR 2020-2021

Name of the Course: Fusion 360 Assembly Modelling

Name of the Coordinator: Mr.Mohan S R

No. of Students Enrolled: 26

No. of Students Completed:26

Course Period: 01.02.2021 to 12.02.2021

Course Objective:

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

This Value Added Course on “Fusion 360 Assembly Modelling” is conducted for the students of Mechanical department as a part of co-curricular activities program. All registered students for this program were actively attended and learned throughout the duration of this program and successfully completed.

Course Outcome:

Upon the completion of this course the students will be able to

1. Create and drive a mechanical gear assembly.
2. Create and modify a form-based design.
3. Use design tools for molded parts.
4. Demonstrate proficiency in the setup and creation of a design.
5. To Implement and analyze methods of formulating equations of motion for Inter-connected bodies.

Name: Mr.Mohan S R

Designation: AP/MECH

Head Training
Mr.Mohan S R

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SUMMARY REPORT
ACADEMIC YEAR 2020-2021

Name of the Course: Introduction to Multibody Dynamics

Name of the Coordinator: Mr.J.Jabin

No. of Students Enrolled: 44

No. of Students Completed: 44

Course Period: 05.04.2021 to 16.04.2021

Course Objective:

The Students will acquire to

- To present the basic theoretical knowledge of the Foundations of Multi body dynamics
- To apply the knowledge of the applications to machine and structural dynamics.
- To analyze the static and dynamic behaviour of the multi body dynamics.
- To derive the motion equation of the bodies.
- To gain the concept of motion mechanics related to applications of MBD.

This Value Added Course on “Introduction to Multibody Dynamics” is conducted for the students of Mechanical department as a part of co-curricular activities program. All registered students for this program were actively attended and learned throughout the duration of this program and successfully completed.

Course Outcome:

Upon the completion of this course the students will be able to

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.

Name: Mr.J.Jabin

Designation: AP/MECH

Head Training
Mr.J.Jabin

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Department of Electronics and Communication Engineering

SUMMARY REPORT

ACADEMIC YEAR 2020-2021

Name of the Course: IVA067 and IOT Using Arduino

Name of the Coordinator: Mr.S. Naveen Kumar

No. of Students Enrolled: 8

No. of Students Completed: 8

Course Period: ACY 2020-2021 EVEN SEMESTER

Course Objective:

- To expose and gain knowledge about Arduino technology with IOT.
- To Program and construct applications using Arduino using a number of different sensors and IOT.

This Value Added Course on “IVA067 and IOT Using Arduino” is conducted for Final year ECE students as Anna university approved value added course. All registered students for this program were actively attended and learned throughout the duration of this course and successfully completed.

Course Outcome: Students shall be able to

- To understand features of Arduino Platform
- Application Development –Integrated with Zig bee,
- Execute real-time application
- Application development –LIFI with Arduino
- Execute coding to Gather and process data on the Arduino via the cloud

Name: **Mr.S. Naveen Kumar**

Designation: AP/ECE


Head Training




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Department of EEE

SUMMARY REPORT

ACADEMIC YEAR 2020-2021

Name of the Course: LABVIEW

Name of the Coordinator: Mrs.R.Abirami

No. of Students Enrolled: 10

No. of Students Completed: 10

Course Period: 5th October 2020 to 10th October 2020

Course Objective:

- To Familiarize the student in introducing and exploring LABVIEW software.
- To enable the student on how to approach for solving Engineering problems using simulation tools.
- To Prepare the students to use LABVIEW in their project works.
- To Provide a foundation in use of this software for real time applications.

This Value Added Course on “LABVIEW” is conducted for both EEE &ECE students as a part of co-curricular activities program. All registered students for this program were actively attended and learned throughout the duration of this program and successfully completed.

Course Outcome: After completion of this course, students will able to

- Express programming & simulation for engineering problems.
- Find importance of this software for lab experiments
- Articulate importance of software in research by simulation work.
- Have in depth knowledge of providing virtual instruments on LABVIEW Environment.
- Write basic mathematical, electrical, electronics problem in LABVIEW, simulation and connect programming files with GUI Simulink.

Name: Mrs.R.Abirami

Designation: AP/EEE

Co-Ordinator

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DEPARTMENT OF SCIENCE AND HUMANITIES
SUMMARY REPORT

ACADEMIC YEAR 2020-2021

Name of the Course: PC Hardware Networking and Troubleshooting

Name of the Coordinator: Mrs. V. Rajathi

No. of Students Enrolled: 149

No. of Students Completed: 149

Course Period: 08/03/2021 to 12/03/2021.

Course Objective:

- 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.

This Value-Added Course on “PC Hardware Networking and Troubleshooting” is conducted for I year students as a part of co-curricular activities program. All registered students for this program were actively attended and learned throughout the duration of this program and successfully completed.

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.

Name: Mrs. V. Rajathi, AP/ CSE

Head Training

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Department of Electronics and Communication Engineering

SUMMARY REPORT

ACADEMIC YEAR 2020-2021

Name of the Course: Programming Foundations with Java Script, HTML & CSS

Name of the Coordinator: Ms.J. Nirmala AP/ CSE

No. of Students Enrolled: 15

No. of Students Completed: 15

Course Period: 30.09.2020 to 25.10.2020

Course Objective:

- To learn the basics of programming from building web pages,
- To write programs with JavaScript
- To make web pages interactive.

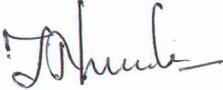
This Value Added Course on “Programming Foundations with Java Script, HTML & CSS” is conducted for II year ECE students as a part of co-curricular activities program. All registered students for this program were actively attended and learned throughout the duration of this program and successfully completed.

Course Outcome: Students shall be able to

- Understand the concepts of the historical context and justification for HTML,
- Create HTML5 documents and Add content to an HTML page using HTML elements.
- Use hyperlinks to connect various HTML pages together.

Name: Ms.J. Nirmala

Designation: AP/CSE


Head Training


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