JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
COLLEGE OF ENGINEERING JAGTIAL
Nachupally (Kondagattu), Kodimial Mandal, Jagtial Dist.-505 501, Telangana
Department of Electrical and Electronics Engineering

Program Report

Date:02/11/2015

Name of the Event: Add-On Course On Performance of Solar PV on PV SOL **Date/Duration:** 17/07/2015to 23/10/2015

Recourse Person: Mr. C. Radha Charan, Assistant Professor, Electrical and Electronics Engineering, J.N.T.U.H College of Engg Jagtial.

Number of students Attended: 66

Objective of the Event:

This Add On Course provided an opportunity for the students to learn the basic features of. New PVSOL, Flow Chart for PV SOL, Quick guidance for standalone PV Systems, , Simulation of PV Sol with economic efficiencies will be done. This Add On course has provided the students with necessary inputs to carry out their Major Project in the B.Tech III Year I Semester in the area. Performance of Solar PV on PV SOL.

Topics Covered:

- New in PV SOL, Flow Chart for PVSOL Stand-alone System, Algorithm for PVSOL Stand-alone System
- Quick Guide - Editing Projects, An SPV System in Direct Current, Stand-Alone Photovoltaic System : An SPV System in Direct and Alternating Current
- Input Parameters for PV Sol: Climate data, Solar Radiation, Solar Irradiance, Solar Angles, PV Module, Batteries, Charge Controller, Types of Controllers
- Choosing a Controller, Electrical Consumption for Domestic Load, Mathematical calculations for various locations, System Check
- Simulation results of PVSOL, Economic Efficiency Calculation for Stand-Alone Systems, Graphical evaluation
- Annual Energy Balance, Simulation results for various locations

Number of students obtained course completion certificate:62

Faculty In charge **HOD** **Principal**

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Department of Electrical and Electronics Engineering

Program Report

Date: 02/11/2015

Name of the Event: Add-on Course on Power Quality
Date/Duration: 14/07/2015to 15/10/2015

Recourse Person: Dr. K. Srinivas, Assistant Professor and Head, Electrical and Electronics Engineering, J.N.T.U.H College of Engg Jagtial, Mob: +91-9849552339.

Number of students Attended: 59

Objective of the Event:

- **Definition of power quality** and different terms of power quality.
- Effects Of Voltage and Current Harmonics
- **Sources** of Current Harmonics
- **Mitigation** of Voltage and Current Harmonics- Principles of Protection

Topics Covered:

Description of the Voltage and Current Harmonics Phenomena.
Composition of Distorted Waveform and Decomposition of Distorted Waveform.
Harmonics and Symmetrical Components.
Classification of Distortion Components.
Parameters and Measurements.
Sources of Current Harmonics
Sources of Current Harmonics
Effects Voltage and Current Harmonics
Effects Voltage and Current Harmonics
Mitigation of Voltage and Current Harmonics

Number of students obtained course completion certificate: 59

HOD

Principal

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Nachupally (Kondagattu), JagtialDist. - 505 501, Telangana (India)

PROGRAM REPORT

Date:06/11/2015

ACADEMIC YEAR 2015-16			
Name of the Department	Mechanical Engineering		
Name of the Event	Add-on Course		
Title ofthe Event	Maintenance Management for Mining Equipment		
Resource Person	Dr.N.V.S Raju,Professor, Department of ME, JNTUHCEJ.		
Date & Time	27/06/2015 to 31/10/2015&02:15 PM to 04:45 PM		
No. of Students Registered	64	**No. of Students Obtained Course Completion Certificate**	54

Objective of the Course:

1. To understand the basic concept of mining industry in relation to national economy and infrastructure building.
2. To be familiar with the various methods for opening up of deposits and maintenance of mining industry.
3. To understand the technical details of various unit operations and availability of deposits.
4. To be familiar with the various types of Mine supports and different failure modes

Summary & Outcome of the Course:

This Add on Course provided an opportunity for the students to learn the basic machinery and equipment used in coal mines. Using these machineries, it becomes inevitable to rely on the performance of the machines over a period of time especially dumpers.

Demonstrate the knowledge of Reliability to indicate the probability that an equipment or machine will perform its intended function for a specified interval under stated conditions.

The students have learnt about the Failure Mode Effect and Criticality Analysis method and Risk Priority Number which is a product of severity, detection and occurrence of failures. Implementation of Six Sigma technique to level the measure of failure and establishes the improvements required.

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This Add On course has provided the students with necessary inputs to carry out their Major Project in the B.Tech IV Year II Semester in the area Performance Evaluation through Six Sigma and Failure mode, Effect and Criticality Analysis on Dumpers.

Resource Person HOD Principal

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PROGRAM REPORT

Date:04/11/2015

ACADEMIC YEAR 2015-16			
Name of the Department	Mechanical Engineering		
Name of the Event	Add-on Course		
Title ofthe Event	Engineering and Management for Pollution		
Resource Person	Dr. N.V.S Raju,Professor, Department of ME, JNTUHCEJ.		
Date & Time	25/06/2015 to 29/10/2015&02:15 PM to 04:45 PM		
No. of Students Registered	58	**No. of Students Obtained Course Completion Certificate**	51

Objective of the Course:

1. To understand the basic concepts of drilling and blasting.
2. To gain knowledge on various types of explosives and accessories, and their applicability in blasting.
3. To understand the safety measures that are required for storing and handling of explosives.
4. To understand the mechanics of blasting and its effects on environment

Summary & Outcome of the Course:

This Add on Course provided an opportunity for the students to learn the basic coal mining processes they operate on the surface or underground. By these processes there is an increase in pollution and long-lasting impact on the environment as the coal dust in air is abnormally high.

Demonstrate the concepts of moulding, blasting and weight analysis to optimize the coal dust generated. Few blasting explosives and different angles to decrease the coal dust are introduced. The students have learnt about the Patterns and properties of moulding sand in order to place the explosive in that mould. Implementation of various angles and weight of the mould for blasting and removing the coal from the coal seam are discussed.

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This Add On course has provided the students with necessary inputs to carry out their Major Project in the B.Tech IV Year II Semester in the area Optimization of Air Pollution Due to Coal Dust in Open Cast Mines.

Resource Person HOD Principal

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Nachupally (Kondagattu), Kodimial Mandal, Karimnagar Dist.-505 501, Telangana
Department of Computer Science and Engineering

Program Report

Date: 11/11/2015

Name of the Event: Add-on Course on Internet of Things

Date/Duration: 04/07/2015 to 07/11/2015

Recourse Persons: Sri M. Uday Kumar, Associate Professor, Department of Computer Science & Engineering JNTUH College of Engineering Jagtial, Mobile: 9346431447

Number of students Attended: 56

Objective of the Event:

- This course explains importance of internet of things.
- To understand IoT enabled technologies.
- To study about IoT clouds

Topics Covered:

- Introduction to Internet of Things
- IoT enabled Technologies
- IoT and M2M
- Basics of IoT System Management
- IoT Physical Devices and Endpoints
- IoT Physical Servers and Cloud Offerings

Number of students obtained course completion certificate: 51

Faculty Incharge **HOD** **Principal**

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Nachupally (Kondagattu), Kodimial Mandal, Jagtial Dist.-505 501, Telangana
Department of Information Technology

Program Report

Date:17/10/2015

Name of the Event: Add-on Course on Applied Machine Learning

Date/Duration: 29/06/2015 to 17/10/2015

Recourse Person: Dr. Suresh Kumar Sanampudi, Assistant Professor and Head, Department of Information technology, J.N.T.U.H College of Engg Jagtial, Mob: +91-9440936885.

Number of students Attended:60

Objective of the Event:

- This course explains machine learning techniques such as decision tree learning, Bayesian learning etc.
- To understand computational learning theory.
- To study the pattern comparison techniques.

Topics Covered:

- Introduction to Machine Learning
- Regression
- Unsupervised Learning
- Dimensionality Reduction
- Reinforcement Learning
- Machine Learning Applications

Number of students obtained course completion certificate:58

Faculty Incharge **HOD** **Principal**

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Nachupally (Kondagattu), Kodimial Mandal, Jagtial Dist.-505 501, Telangana
Department of Information Technology

Program Report

Date:17/10/2015

Name of the Event: Add on course on Fundamentals of Python Programming Language

Date/Duration: 29/06/2015 to 17/10/2015

Recourse Person: Smt. Ch. Asha Jyothi**,** Assistant Professor, Department of Information technology, J.N.T.U.H College of Engg Jagtial.

Number of students Attended:64

Objective of the Event:

- To be able to introduce core programming basics and program design with functions using Python programming language.
- To understand a range of Object-Oriented Programming, as well as in-depth data and information processing techniques.
- To understand the high-performance programs designed to strengthen the practical expertise.

Topics Covered:

- Introduction to Python Programming
- Data Science Fundamentals
- Object Oriented Programming
- Numerical Python
- Python Data Analysis
- Advanced Python Concepts

Number of students obtained course completion certificate:61

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Faculty Incharge **HOD** **Principal**

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Nachupally (Kondagattu), Kodimial Mandal, Jagtial Dist.-505 501, Telangana
Department of Electrical and Electronics Engineering

Program Report

Date: 13/10/2016

Name of the Event: Add-on Courseon HOMER software simulation tool for renewable energy resources

Date/Duration: 22/06/2016 to 12/10/2016

Resourse Person: Mrs. V. Baby Shalini, Assistant Professor, Electrical and Electronics Engineering, J.N.T.U.H College of Engg Jagtial.

Number of students Attended:66

Course outcomes: students will be able to

1.Understand the energy scenario and the consequent growths of the power generate renewable energy sources

2.Understand power generation from various renewable energy sources like solar, wind, fuel cell

3.find optimized solution for installing renewable energy sources

4.simulate energy models using software tools like homer

S.NO	Add on Topic	No.of Lectures
1	**Introduction to HOMER:** solving problems with Homer-Design, Simulation, Optimization, Sensitivity Analysis.	4
2	**Components**: Generator, Photo Voltaic Cells(PV),Wind Turbine, Storage Converter, Boiler, Hydro, Hydro Kinetic, Thermal Load Controller, Grid, Hydrogen Tank, Electrolyzer, Reformer, Controller.	6
3	**Resources:**SolarResource,WindResource,HydroResource,Fuels,HydrokineticResources,Biomass Resources.	6
4	Loads: Electric Load, Thermal Load, Deferrable Load, Hydrogen Load, Adding Load To the Model. Designing a model system	6
5	Design: Standalone System, Grid Integrated System with Renewable Sources, Simulation	6
6	Simulation Results, Optimization Results, Sensitivity Analysis Results, Homers Calculations.	6
	Total classes	34

Number of students obtained course completion certificate: 63

Faculty In charge **HOD** **Principal**

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Department of Electrical and Electronics Engineering

Program Report

Date:3/11/2016

Name of the Event: Add-on Course on ELECTRICAL MACHINE DESIGN

Date/Duration: 18/06/2016 to 02/11/2016

Resourse Person: Mr. S. JAGADISH KUMAR, Assistant Professor, Electrical and Electronics Engineering, J.N.T.U.H College of Engg Jagtial, Mob: +91-7780552287.

Number of students Attended:65

Objective of the Event:

- To know the major considerations in electrical machine design, electrical engineering materials, space factor, choice of specific electrical and magnetic loadings
- To analyze the thermal considerations, heat flow, temperature rise, rating of machines.
- To understand the design of transformers
- To study the design of induction motors
- To know the design of synchronous machine

Topics Covered:

- **Introduction To Electrical Machine Design**
- **Dc Machines**
- **Transformers**
- **Regulation**
- **Induction motor**
- **Magnetic Leakage Calculations**

Number of students obtained course completion certificate:63

Faculty In charge **HOD** **Principal**

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Nachupally (Kondagattu), Jagtial Dist. - 505 501, Telangana (India)

PROGRAM REPORT

Date:05/11/2016

ACADEMIC YEAR 2016-17			
Name of the Department	Mechanical Engineering		
Name of the Event	Add-on Course		
Title ofthe Event	Maintenance and Engineering of Mining Equipment		
Resource Person	Dr. N.V.S Raju,Professor, Department of ME, JNTUHCEJ.		
Date & Time	02/07/2016 to 29/10/2016&9:55 PM to 12:25 PM		
No. of Students Registered	65	**No. of Students Obtained Course Completion Certificate**	56

Objective of the Event:

1. To understand the basic concept of mining industry in relation to national economy and infrastructure building.
2. To be familiar with the various methods for opening up of deposits and maintenance of mining industry.
3. To understand the technical details of various unit operations and availability of deposits.
4. To be familiar with the various types of Mine supports and different failure modes

Summary & Outcome of the Event:

This Add on Course provided an opportunity for the students to learn the basic machinery and equipment used in coal mines. Using these machineries, it becomes inevitable to rely on the performance of the machines over a period of time especially dumpers. Demonstrate the knowledge of Reliability to indicate the probability that an equipment or machine will perform its intended function for a specified interval under stated conditions.

The students have learnt about the Failure Mode Effect and Criticality Analysis method and Risk Priority Number which is a product of severity, detection and occurrence of failures. Implementation of various methods of Graphical and Analytical methods like CROW, PCNT, Laplace and Lewis –Robinson tests, Bayesian Belief Networks etc., are discussed.

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This Add On course has provided the students with necessary inputs to carry out their Major Project in the B.Tech IV-Year II Semester in the area Reliability, Availability and maintainability Analysis and Failure mode, Effect and Criticality Analysis on Dumpers .

Resource Person **HOD** **Principal**

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PROGRAM REPORT

Date:05/11/2016

ACADEMIC YEAR 2016-17			
Name of the Department	Mechanical Engineering		
Name of the Event	Add-on Course		
Title ofthe Event	Bio-Fuels – An alternate fuel blend		
Resource Person	Mrs. M Shailaja, AssociateProfessor, Department of ME, JNTUHCEJ.		
Date & Time	02/07/2016 to 29/10/2016&9:55 AM to 12:25 PM		
No. of Students Registered	64	**No. of Students Obtained Course Completion Certificate**	56

Objective of the Event:

1. Understand the properties of bio fuels and compare with diesel.
2. Workout basic engineering calculations related to bio fuels

Summary & Outcome of the Event:

This Add-on Course provided an opportunity for the students to understand the concepts of Bio-fuels and bio-energy systems, bio-mass production, availability and attributes of bio-fuel production. Types of bio-mass derived fuels and energy, bio-energy sources, Characteristics and classification. Recent developments of bio-diesel, including different types of biodiesel, the characteristics, processing and economics of biodiesel industry.

The application of biodiesel in automobiles, the challenges of biodiesel industry, development and biodiesel policy. Biodiesel as engine fuel, Transesterification, effect of reaction temperature, effect of molar ratio. Usage of waste vegetable oil and its synthesis. Analyzing the process of gasification, Biomass, Producer gas. Blends that can be used as a fuel in compression engine and its effect on environment.

Resource Person HOD Principal

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JNTUH COLLEGE OF ENGINEERING JAGTIAL

Nachupally (Kondagattu), Jagtial Dist., Telangana – 505 501

Department of Electronics & Communication Engineering

REPORT ON ADD-ON COURSE WITH OUTCOME

Date : 07-10-2016

Academic Year: 2016-17

Class and Semester: B.Tech III Year I Sem (ECE)

Title of Add-on Course: Image analysis with MATLAB

Offered by Department Name and Organization: ECE Department of JNTUHCEJ.

Course Duration: 39 Hours (3 Hours per Week) during **18/06/2016 to 01/10/2016**

Name of the Faculty: Smt M.Tirupathamma , Asst Prof, ECE, JNTUHCEJ

Objective of the course:

- This course provides the analysis of the Image processing with MATLAB which includes basic operations, feature extraction etc.
- To provide better correlation between the theoretical concepts with the practical knowledge.
- To implement the some modules for manipulation and feature extraction from image practically.

Topics Covered:

- Image operations using MATLAB
- Enhancement operation using MATLAB
- Feature extraction using MATLAB
- Morphological operations using MATLAB
- Case studies on Image Processing

Number of Students completing the Add-on Course: 64

Signature of Faculty

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Department of Electronics & Communication Engineering

REPORT ON ADD-ON COURSE WITH OUTCOME

Date : 13-10-2016

Academic Year: 2016-17

Class and Semester: B.Tech IV Year I Sem (ECE)

Title of Add-on Course: Network Simulator (NS2) for WSN.

Offered by Department Name and Organization: ECE Department of JNTUHCEJ.

Course Duration: 36 Hours (3 Hours per Week) during 18-06-2016 to 24-09-2016.

Name of the Faculty: S Praveen Kumar, Asst. Prof., ECE, JNTUH CEJ

Number of Students completing the Add-on Course: 63

Summary Report of the Programme with Outcome:

This Add On Course provided an opportunity for the students to learn the basic features of Network Simulator. Network Simulator NS2 is an open-source event-driven simulator designed specifically for research in computer communication networks. Since its inception in 1989, NS2 has continuously gained tremendous interest from industry, academia, and government. Having been under constant investigation and enhancement for years, NS2 now contains modules for numerous network components such as routing, transport layer protocol, and application. The students have learnt about the Linkage Between OTcl and C++ in NS2. This Add On course has provided the students with necessary inputs to carry out their Major Project in the B.Tech IV Year II Semester in the area Wireless Communications and Wireless Sensor Networks.

Signature of Faculty

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Department of Computer Science and Engineering

Program Report

Date: 26/10/2016

Name of the Event: Add-on Course on Internet of Things

Date/Duration: 18/06/2016 to 22/10/2016

Recourse Persons: Sri M. Uday Kumar, Associate Professor, Department of Computer Science & Engineering JNTUH College of Engineering Jagtial, Mobile: 9346431447

Number of students Attended: 65

Objective of the Event:

- This course explains importance of internet of things.
- To understand IoT enabled technologies.
- To study about IoT clouds

Topics Covered:

- Introduction to Internet of Things
- IoT enabled Technologies
- IoT and M2M
- Basics of IoT System Management
- IoT Physical Devices and Endpoints
- IoT Physical Servers and Cloud Offerings

Number of students obtained course completion certificate: 60

Faculty Incharge **HOD** **Principal**

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Department of Computer Science and Engineering

Program Report

Date: 26/10/2016

Name of the Event: Add-on Course on Python Programming

Date/Duration: 18/06/2016 to 22/10/2016

Recourse Persons: Dr. D. Ramesh, Professor, Department of Computer Science & Engineering JNTUH College of Engineering Jagtial, Mobile: 9866789967

Number of students Attended: 63

Objective of the Event:

- This course explains important features of python programming language.
- To understand different types of data types.
- To study about modules, regular expressions etc.

Topics Covered:

- Introduction to Python
- Data types
- File handling in python
- Exceptions
- Regular expressions
- Multithreading

Number of students obtained course completion certificate: 58

Faculty Incharge **HOD** **Principal**

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Department of Information Technology

Program Report

Date:03/11/2016

Name of the Event: Internet of Things

Date/Duration: 13/06/2016 to 03/11/2016

Recourse Person: Dr. M. Dhana Lakshmi, Professor, IT Dept, JNTUH CEJ.

Number of students Attended:64

Objective of the Event:

- Students will be explored to the interconnection and integration of the physical world and the cyberspace.
- They are also able to design & develop IOT Devices.

Topics Covered:

- Introduction to IoT
- Introduction Arduino board
- Types of sensors
- Introduction Raspberry Pi board
- Sensor interfacing for IoT Applications
- Web application Development using HTML and PHP

Number of students obtained course completion certificate:62

Faculty Incharge **HOD** **Principal**

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Department of Information Technology

Program Report

Date:03/11/2016

Name of the Event: Add on course on Fundamentals of Python Programming Language

Date/Duration:13/06/2016 to 03/11/2016

Recourse Person: Smt. Ch. Asha Jyothi,Assistant Professor, Department of Information technology, J.N.T.U.H College of Engg Jagtial.

Number of students Attended:61

Objective of the Event:

- To be able to introduce core programming basics and program design with functions using Python programming language.
- To understand a range of Object-Oriented Programming, as well as in-depth data and information processing techniques.
- To understand the high-performance programs designed to strengthen the practical expertise.

Topics Covered:

- Introduction to Python Programming
- Data Science Fundamentals
- Object Oriented Programming
- Numerical Python
- Python Data Analysis
- Advanced Python Concepts

Number of students obtained course completion certificate:60

Asha Jyothi
Faculty Incharge

HOD

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Department of Electrical and Electronics Engineering

Program Report

Date: 06/11/2017

Name of the Event: Add-on Course on ENERGY AUDIT

Date/Duration: 21/07/2017 to 03/11/2017

Resource Person: Sri. S.JAGADISH KUMAR, Assistant Professor, Electrical and Electronics Engineering, J.N.T.U.H College of Engg Jagtial, Mob: +91-7780552287.

Number of students Attended:65

Topics Covered:
Energy Scenario
Energy Audit Basics
Energy Audit Procedure
Energy Analytics
Energy Efficient Technologies in Electrical Systems
Case Studies / Best Practices

Number of students obtained course completion certificate:64

Faculty In charge **HOD** **Principal**

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COLLEGE OF ENGINEERING JAGTIAL
Nachupally (Kondagattu), Kodimial Mandal, Jagtial Dist.-505 501, Telangana
Department of Electrical and Electronics Engineering

Program Report

Date: 30/10/2017

Name of the Event: Add-on Course on Power Quality

Date/Duration: 22/07/2017 to 28/10/2017

Resource Person: Dr. K.Srinivas, Assistant Professor and Head, Electrical and Electronics Engineering, J.N.T.U.H College of Engg Jagtial, Mob: +91-9849552339.

Number of students Attended: 62

Objective of the Event:

- Definition of power quality and different terms of power quality.
- Effects of Voltage and Current Harmonics
- Sources of Current Harmonics
- Mitigation of Voltage and Current Harmonics- Principles of Protection

Topics Covered:

- Description of the Voltage and Current Harmonics Phenomena.
- Composition of Distorted Waveform and Decomposition of Distorted Waveform.
- Harmonics and Symmetrical Components.
- Classification of Distortion Components.
- Parameters and Measurements.
- Sources of Current Harmonics
- Sources of Current Harmonics
- Effects Voltage and Current Harmonics
- Effects Voltage and Current Harmonics
- Mitigation of Voltage and Current Harmonics

Number of students obtained course completion certificate: 62

Faculty in charge **HOD** **Principal**

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Jagtial (Dist)-505 501, Telangana.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
COLLEGE OF ENGINEERING
Nachupally (Kondagattu), JagtialDist. - 505 501, Telangana (India)

PROGRAM REPORT

Date:07/11/2017

ACADEMIC YEAR 2017-18			
Name of the Department	Mechanical Engineering		
Name of the Event	Add-on Course		
Title ofthe Event	Bio-Fuels – An alternate fuel for IC Engines		
Resource Person	Mrs. M Shailaja, AssociateProfessor, Department of ME, JNTUHCEJ.		
Date & Time	15/07/2017 to 04/11/2017 &9:55 AM to 12:25 PM		
No. of Students Registered	58	**No. of Students Obtained Course Completion Certificate**	49

Objective of the Event:

1. Know the bio-fuel production and calculate the energy balance of bio-fuel.
2. Understand the concepts of 1st generation, 2nd generation and advanced bio-fuels.

Summary & Outcome of the Event:

This Add-on Course provided an opportunity for the students to understand the concepts of Bio-fuels and bio-energy systems, bio-mass production, availability and attributes of bio-fuel production. Types of bio-mass derived fuels and energy, bio-energy sources, Characteristics and classification. Recent developments of bio-diesel, including different types of biodiesel, the characteristics, processing and economics of biodiesel industry.

The application of biodiesel in automobiles, the challenges of biodiesel industry, development and biodiesel policy. Biodiesel as engine fuel, Transesterification, effect of reaction temperature, effect of molar ratio. Usage of waste vegetable oil and its synthesis. Analyzing the process of gasification, Biomass, Producer gas. Blends that can be used as a fuel in compression engine and its effect on environment

Resource Person

HOD

Principal

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PROGRAM REPORT

Date:08/11/2017

ACADEMIC YEAR 2017-18			
Name of the Department	Mechanical Engineering		
Name of the Event	Add-on Course		
Title ofthe Event	ME Applications for Agricultural Equipment		
Resource Person	Dr. K Vasantha Kumar, Assistant Professor, Department of ME, JNTUHCEJ.		
Date & Time	15/07/2017 to 04/11/2017 &02:15 PM to 04:45 PM		
No. of Students Registered	65	**No. of Students Obtained Course Completion Certificate**	55

Objective of the Event:

1. To understand the objectives in seeding and achieving the best crop emergence possible in a range of conditions
2. Able to know the Advantages of different types of machinery and setting-up
3. To set up a machine correctly for a range of field and crop conditions.
4. To calibrate a machine correctly and accurately
5. Use of guidance systems and application of data
6. To get experience in seeding operations to build skills and knowledge about the latest technology and to achieve better results in the field.

Summary & Outcome of the Event:

This Add-on Course provided an opportunity for the students to learn the basic requirements of small-scale cropping machines which are suitable for small farms with simple design and technology to be used in different farm operations. Using these a manually operated row planter is designed and developed to improve planting efficiency and reduce drudgery involved in manual planting method. Seed planting for different size of seed and improper spacing are the major problems are noticed.

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Demonstrate the knowledge of parts of corn seeding machine like Shaft, Sprocket, Chain, Bearing, Seeding funnel, Slotted Disc etc. Few other parts which are suitable to the selection of corn seeder components are introduced. The students have learnt about the Chain and Sprocket mechanism and how ploughing, seeding and covering the furrows takes place one after the other. Implementation of sprocket and chain mechanism and sheet in this machine and the soil is ploughed, seeds from the disc fall into the soil one after other when the holes of the disc come downward and the problems which can be overcome are discussed

This Add On course has provided the students with necessary inputs to carry out their Major Project in the B.Tech IV Year II Semester in the area Design and Fabrication of Corn Seeder.

Resource Person

HOD

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Department of Electronics & Communication Engineering

REPORT ON ADD-ON COURSE WITH OUTCOME

Date : 18-11-2017

Academic Year: 2017-18

Class and Semester: B.Tech III Year I Sem (ECE)

Title of Add-on Course: IoT Through Arduino And Raspberry Pi

Offered by Department Name and Organization: ECE Department of JNTUHCEJ in Association with M/s. EmbeddedRF Technologies, Hyderabad.

Course Duration: 36 Hours (3 Hours per Week) during 22-07-2017 to 28-10-2017.

Name of the Faculty: Dr. Dhiraj Sunehra, Prof. & Head, ECE, JNTUH CEJ
Mr. Bhavani Shankar, M/s. EmbeddedRF Technologies, Hyderabad

Number of Students completing the Add-on Course: 61

Summary Report of the Programme with Outcome:

This Add-on Course provided an opportunity for the students to learn the basic features of Arduino and Raspberry Pi boards. Using an open source software such as Arduino IDE for programming the Arduino, Demonstrate the interfacing of various sensors and modules with Arduino. The Python programming language is introduced for programming the Raspberry Pi. The students have learnt about the components that are needed to integrate Raspberry Pi for enabling IoT development. Implementation of Remote Data logging and storing the data on Amazon Web server, Webpage development using HTML and PHP are discussed. This Add-on course has provided the students with necessary inputs to carry out their Mini and Major Project in the area of Embedded Systems and IoT.

Dhiraj Sunehra

Signature of Faculty

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Department of Electronics & Communication Engineering

REPORT ON ADD-ON COURSEWITH OUTCOME

Date: 10/07/2017

Academic Year: 2017-18

Class and Semester: B.Tech IV Year I Sem (ECE)15-07-2017 to 18-11-2017

Title of Add-on Course: VHDL FPGA design course

Offered by Department Name and Organization:

Course Duration: 36 Hours (3 Hours per Week) during21/07/2017 to 03/11/2017.

Name of the Faculty: Mrs. D NAGA SUDHA, Assistant Professor

Number of Students completing the Add-on Course: 64

Summary Report of the Programme with Outcome:

Signature of Faculty

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Department of Computer Science and Engineering

Program Report

Date: 02/11/2017

Name of the Event: Add-on Course on Python Programming

Date/Duration: 15/07/2017 to 28/10/2017

Recourse Persons: Dr. D. Ramesh, Professor, Department of Computer Science & Engineering JNTUH College of Engineering Jagtial, Mobile: 9866789967

Number of students Attended: 57

Objective of the Event:

- This course explains important features of python programming language.
- To understand different types of data types.
- To study about modules, regular expressions etc.

Topics Covered:

- Introduction to Python
- Data types
- File handling in python
- Exceptions
- Regular expressions
- Multithreading

Number of students obtained course completion certificate: 52

Faculty Incharge **HOD** **Principal**

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Department of Information Technology

Program Report

Date:10/11/2017

Name of the Event: Internet of Things

Date/Duration: 12/07/2017 to 10/11/2017

Recourse Person: Dr. M. Dhana Lakshmi, Professor, IT Dept, JNTUH CEJ.

Number of students Attended:61

Objective of the Event:

- Students will be explored to the interconnection and integration of the physical world and the cyberspace.
- They are also able to design & develop IOT Devices.

Topics Covered:

- Introduction to IoT
- Introduction Arduino board
- Types of sensors
- Introduction Raspberry Pi board
- Sensor interfacing for IoT Applications
- Web application Development using HTML and PHP

Number of students obtained course completion certificate:59

Faculty Incharge **HOD** **Principal**

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Department of Information Technology

Program Report

Date:10/11/2017

Name of the Event: Add on course on Fundamentals of Python Programming Language

Date/Duration:12/07/2017 to 10/11/2017

Recourse Person: Smt. Ch. Asha Jyothi,Assistant Professor, Department of Information technology, J.N.T.U.H College of Engg Jagtial.

Number of students Attended:58

Objective of the Event:

- To be able to introduce core programming basics and program design with functions using Python programming language.
- To understand a range of Object-Oriented Programming, as well as in-depth data and information processing techniques.
- To understand the high-performance programs designed to strengthen the practical expertise.

Topics Covered:

- Introduction to Python Programming
- Data Science Fundamentals
- Object Oriented Programming
- Numerical Python
- Python Data Analysis
- Advanced Python Concepts

Number of students obtained course completion certificate:55

Asha Jyothi
Faculty Incharge

HOD

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Department of Electrical and Electronics Engineering

Program Report

Date: 09/11/2018

Name of the Event: Add-on Course on POWER SYSTEM RELIABILITY AND PLANNING

Date/Duration: 19/07/2018 to 04/11/2018

Resourse Person: Mrs. P. Sangeetha, Assistant Professor, Electrical and Electronics Engineering, J.N.T.U.H College of Engg Jagtial, Mob: +91-9182614087.

Number of students Attended: 62

Objective of the Event:

- This course explains the generation model, Loss of load indices
- Assess the reliability of single area and multi area systems
- Benefit from an in-depth knowledge of power system planning

Topics Covered:

- The generation system model
- Scheduled outages. Load forecast uncertainty Loss of energy indices.
- The frequency and duration method, problems
- Transmission Systems Reliability Evaluation: Radial configuration
- Network configurations
- Generation Planning
- Investigation and simulation models
- Deterministic contingency analysis
- Reliability calculations for single area and multiarea power systems.
- Network configuration design–consisting of schemes
- security criteria configuration synthesis

Number of students obtained course completion certificate: 61

P. Sangeetha
Faculty In charge

HOD

Principal

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Department of Electrical and Electronics Engineering

Program Report

Date: 09/11/2018

Name of the Event: Add-on Course on HOMER Software Simulation Tool for Renewable Energy Resources
Date/Duration: 21/07/2018 to 27/10/2018

Resourse Person: Sri.C Radha Charan, Assistant Professor, Electrical and Electronics Engineering, J.N.T.U.H College of Engg Jagtial.

Number of students Attended: 59
Course outcomes: students will be able to

- 1.Understand the energy scenario and the consequent growths of the power generate renewable energy sources
- 2.Understand power generation from various renewable energy sources like solar, wind, fuel cell
- 3.find optimized solution for installing renewable energy sources
- 4.simulate energy models using software tools like homer

Topics Covered:

S.NO	Add on Topic	No. of Lectures
1	**Introduction to HOMER:** solving problems with Homer-Design, Simulation, Optimization, Sensitivity Analysis.	4
2	**Components**: Generator, Photo Voltaic Cells(PV),Wind Turbine, Storage Converter, Boiler, Hydro, Hydro Kinetic, Thermal Load Controller, Grid, Hydrogen Tank, Electrolyzer, Reformer, Controller.	6
3	**Resources:** Solar Resource, Wind Resource, Hydro Resource, Fuels, Hydrokinetic Resources, Biomass Resources.	6
4	Loads: Electric Load, Thermal Load, Deferrable Load, Hydrogen Load, Adding Load To the Model. Designing a model system	6
5	Design: Standalone System, Grid Integrated System with Renewable Sources, Simulation	6
6	Simulation Results, Optimization Results, Sensitivity Analysis Results, Homers Calculations.	6
	Total classes	**34**

Faculty In charge **HOD** **Principal**

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PROGRAM REPORT

Date:06/11/2018

ACADEMIC YEAR 2018-19			
Name of the Department	Mechanical Engineering		
Name of the Event	Add-on Course		
Title ofthe Event	Used Transformer Oil-Properties and Applications		
Resource Person	Mr. C. Shivraj, Assistant Professor (c), Department of ME, JNTUHCEJ.		
Date & Time	21/07/2018 to 03/11/2018&11:35 AM to 1:15 PM		
No. of Students Registered	63	**No. of Students Obtained Course Completion Certificate**	55

Objective of the Event:

1. Understand the properties of used transformer oil (UTO).
2. Relate the properties with diesel fuel for application.

Summary & Outcome of the Event:

This Add-on Course provided an opportunity for the students to understand the concepts of Bio-fuels and bio-energy systems, bio-mass production, availability and attributes of bio-fuel production. Types of bio-mass derived fuels and energy, bio-energy sources, Characteristics and classification. Usage of Transformer oil as an alternate fuel, its properties at different temperatures and its blends with diesel.

The application of used transformer oil in automobiles, the challenges of biodiesel industry, development and biodiesel policy., effect of reaction temperature, effect of molar ratio. Usage of UTO and its synthesis. Analyzing the process of degradation and filtration and forming blends that can be used as a fuel in compression engine and its effect on environment

Resource Person

HOD

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PROGRAM REPORT

Date:08/11/2018

ACADEMIC YEAR 2018-19			
Name of the Department	Mechanical Engineering		
Name of the Event	Add-on Course		
Title ofthe Event	Plant Maintenance and Reliability Engineering		
Resource Person	Dr.N.V.S Raju, Professor, Department of ME, JNTUHCEJ.		
Date & Time	21/07/2018 to 03/11/2018&2:15 PM to 4:45 PM		
No. of Students Registered	61	**No. of Students Obtained Course Completion Certificate**	51

Objective of the Event:

1. To apply engineering knowledge and specialised techniques to prevent or to reduce the likelihood or frequency of failures.
2. To identify and correct the causes of failures that do occur, despite the efforts to prevent them.
3. To determine ways of coping with failures that do occur, if their causes have not been corrected.
4. To apply methods for estimating the likely reliability of new designs, and for analysing reliability data.
5. To present a problem oriented in depth knowledge of Quality and Reliability Engineering.

Summary & Outcome of the Event:

This Add-on Course provided an opportunity for the students to learn the basic Maintenance Strategies of any production machinery and equipment in industries. Using these strategies or practicing a correct policy of maintenance and systematic implementation could keep machines in a state of maximum efficiency. Demonstrate the knowledge of scientific methods in scheduling the jobs for effective utilization of the resources. Few Scheduling Policies which are suitable to the maintenance department are introduced.

The students have learnt about the Trend analysis of failures on a machine to predict life cycle and characteristics of the equipment. Implementation of various methods of Trend Analysis and Reliability oriented maintenance models for overall equipment effectiveness are

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discussed. This Add On course has provided the students with necessary inputs to carry out their Major Project in the B.Tech IV Year II Semester in the area Maintainability and Reliability evaluation through trend analysis of public transportation.

Resource Person

HOD

Principal

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Department of Electronics & Communication Engineering

REPORT ON ADD-ON COURSEWITH OUTCOME

Date : **17/07/2018**

Academic Year: 2018-19

Class and Semester: B.Tech III Year I Sem (ECE)21-07-2018 to 24-11-2018

Title of Add-on Course: VHDL FPGA design course

Offered by Department Name and Organization:

Course Duration: 36 Hours (3 Hours per Week) during21/07/2017 to 03/11/2017.

Name of the Faculty: Mrs.D.NAGA SUDHA, Assistant Professor

Number of Students completing the Add-on Course: 61

Summary Report of the Programme with Outcome:

Signature of Faculty

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Department of Electronics & Communication Engineering

REPORT ON ADD-ON COURSE WITH OUTCOME

Date : 13-11-2018

Academic Year: 2018-19

Class and Semester: B.Tech IV Year I Sem (ECE)

Title of Add-on Course: IoT through Arduino Nano, Embedded System and UART communication to NODEMCU.

Offered by Department Name and Organization: ECE Department of JNTUHCEJ.

Course Duration: 36 Hours (3 Hours per Week) during 21-07-2018 to 03-11-2018.

Name of the Faculty: B. Prabhakar, Assoc. Prof. in ECE, JNTUH CEJ

Number of Students completing the Add-on Course: 61

Summary Report of the Programme with Outcome:

This Add On Course provided an opportunity for the students to learn the basic features of Arduino and Raspberry Pi boards. Using an open source software such as Arduino IDE for programming the Arduino, Demonstrate the interfacing of various sensors and modules with Arduino. They also learn Micro controller, Micro Processor, ARDUINO ARDUINO Hardware, Architecture, Peripherals of NODEMCU Deploying an IoT on Local host Web Server, Installation of ARDUINO IDE software to ARDUINO Basics, FUNCTIONS and commands of ARDUINO IDE. Students will focus on Introduction to EMBEDDED C Programming Language Variables and Numbers Looping Structures Conditional Statements Function declaration LED Interfacing to ARDUINO, Programming, practice and Hands-on output execution Switch interfacing to ARDUINO, Hands-on Programming and output execution, HTML Programming Language and basics UART communication to NODEMCU, Hands-on Programming and output execution.

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Signature of Faculty

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Department of Computer Science and Engineering

Program Report

Date: 7/11/2018

Name of the Event: Add-on Course on Deep Learning

Date/Duration: 21/07/2018 to 03/11/2018

Recourse Persons: Dr. B. Sateesh Kumar, Professor, Department of Computer Science & Engineering JNTUH College of Engineering Jagtial, Mobile: 9885165193

Number of students Attended: 57

Objective of the Event:

- This course explains different types deep learning algorithms.
- To understand data augmentation and sparse representation.
- To study advanced learning models.

Topics Covered:

- Introduction to deep learning.
- Regularization for Deep Learning
- Dataset Augmentation
- Sparse Representations
- Optimization for Training Deep Models
- Algorithms with Adaptive Learning Rates

Number of students obtained course completion certificate: 52

Faculty Incharge **HOD** **Principal**

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Department of Computer Science and Engineering

Program Report

Date: 7/11/2018

Name of the Event: Add-on Course on R-Programming

Date/Duration: 21/07/2018 to 03/11/2018

Recourse Person: Sri. P. Sreenivasa Rao, Associate Professor, Department of Computer Science & Engineering JNTUH College of Engineering Jagtial, Mobile: 8374470381

Number of students Attended: 59

Objective of the Event:

- This course explains importance of R-programming language.
- To understand how develop applications using R-programming language.
- To study about packages, vectors etc.

Topics Covered:

- Overview of R
- Packages in R
- Control structures and functions
- Vectors
- Introduction to Lists
- Working with Lists

Number of students obtained course completion certificate: 54

Faculty Incharge **HOD** **Principal**

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Department of Information Technology

Program Report

Date:7/11/2018

Name of the Event: Add-on Course on Applied Machine Learning

Date/Duration: 21/07/2018 to 03/11/2018

Recourse Person: Dr. Suresh Kumar Sanampudi, Assistant Professor and Head, Department of Information technology, J.N.T.U.H College of Engg Jagtial, Mob: +91-9440936885.

Number of students Attended:59

Objective of the Event:

- This course explains machine learning techniques such as decision tree learning, Bayesian learning etc.
- To understand computational learning theory.
- To study the pattern comparison techniques.

Topics Covered:

- Introduction to Machine Learning
- Regression
- Unsupervised Learning
- Dimensionality Reduction
- Reinforcement Learning
- Machine Learning Applications

Number of students obtained course completion certificate:54

HOD
HEAD
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Principal
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Department of Information Technology

Program Report

Date:14/11/2018

Name of the Event: Internet of Things

Date/Duration: 09/07/2018 to 14/11/2018

Recourse Person: Dr. M. Dhana Lakshmi, Professor, IT Dept, JNTUH CEJ.

Number of students Attended:58

Objective of the Event:

- Students will be explored to the interconnection and integration of the physical world and the cyberspace.
- They are also able to design & develop IOT Devices.

Topics Covered:

- Introduction to IoT
- Introduction Arduino board
- Types sensors
- Introduction Raspberry Pi board
- Sensor interfacing for IoT Applications
- Web application Development using HTML and PHP

Number of students obtained course completion certificate:56

Faculty Incharge **HOD** **Principal**

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Department of Electrical and Electronics Engineering

Program Report

Date: 28/10/2019

Name of the Event: Add-On Course on PV on System Advisor Model
Date/Duration: 20/07/2019to 26/10/2019
Resourse Person: Smt.V.Baby Shalini, Assistant Professor, Electrical and Electronics Engineering, J.N.T.U.H College of Engg Jagtial.

Number of students Attended: 59

Objective of the Event:

This Add On Course provided an opportunity for the students to learn the basic features of System Advisor Model. This discuss the System costs, Financial model inputs , Types of Performance models, Weather Data, Photovoltaic System, Location and resource, Shading and layout, PV Sizing and Configuration, Micro-inverters, PV Design, Battery Storage System, outputs are Financial Parameters, Revenue, Incentives and Depreciation, Electricity rates and loads, Cash flow details and results. This Add On course has provided the students with necessary inputs to carry out their Major Project in the B.Tech IV Year II Semester in the area PV System Software using SAM.

Topics Covered:

- System Advisor Model: Definition, Features, Introduction to Financial and Performance models, NREL, Navigation Menu, input pages, System costs, Financial model inputs, Three types of Simulations.
- Types of Performance models, Window reference: Array, Life time data, Losses, Monthly data.
- Weather Data: Folders and libraries, Weather data elements, Time and Sun position, Weather file formats: SAM CSV Format for Solar, SRW Format for Wind, CSV Format for Marine Energy
- Photovoltaic System, Location and resource, Shading and layout, PV Sizing and Configuration, Micro-inverters, PV Design, System costs, Module, Array.
- Battery Storage System, Wind, Marine energy wave, tidal, Geothermal, Solar water heating, Fuel cell, Biomass combustion, Lifetime and Degradation.
- Financial Parameters, Revenue, Incentives and Depreciation, Electricity rates and loads, Cash flow details and Results.

Number of students obtained course completion certificate: 56

Faculty In charge **HOD** **Principal**

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Department of Electrical and Electronics Engineering

Program Report

Date: 07/11/2019

Name of the Event: Add-On Course On Simulation Tools for Electrical Engineering Applications

Date/duration: July 2019 to November 2019

Resource person: Dr. N. V. Ramana Professor of Electrical and Electronics Engineering & Principal JNTUHCEJ

Number Of Students Attended: 61

Objective of the Event:

- The underlying **purpose of simulation** is to shed light on the underlying mechanisms that control the behavior of a system.
- **simulation** can be used to predict (forecast) the future behavior of a system
- Acquaint the students with the decision-making **process** in situations of uncertainty and in the presence of confused and inaccurate information..

Topics Covered:

- Programming
- MATLAB Graphics
- Simulink
- Programming for Power systems
- Optimization tool box
- Neural networks and Fuzzy logic

Number of students obtained course completion certificate:61

Faculty In charge **HOD** **Principal**

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PROGRAM REPORT

Date:19/11/2019

ACADEMIC YEAR 2019-20			
Name of the Department	Mechanical Engineering		
Name of the Event	Add-on Course		
Title of the Event	3-D Printing and its applications		
Resource Person	Dr.K Vasanthia Kumar, Assistant Professor& Head, Department of ME, JNTUHCEJ.		
Date & Time	20/07/2019 to 09/11/2019 & 2:15 PM to 4:45 PM		
No. of Students Registered	61	**No. of Students Obtained Course Completion Certificate**	56

Objective of the Event:

1. To understand the fundamental concepts of Additive Manufacturing (i.e. Rapid Prototyping) and
   3-D printing, its advantages and limitations.
2. To classify various types of Additive Manufacturing Processes and know their working principle, advantages, limitations etc.
3. To have a holistic view of various applications of these technologies in relevant fields such as mechanical, Bio-medical, Aerospace, electronics etc.

Summary & Outcome of the Event:

This Add on Course provided an opportunity for the students to learn the fundamentals, concepts of additive manufacturing and 3-D printing, its advantages and limitations. Learning the software like Cura, it is easy to create STL (Stereo Lithography) format files that runs the complete process of 3 printing. By 3D printing technology, we can utilise in this in various area of fields like education, prototyping and manufacturing, medicine, construction, art& jewelry.

The students have learnt about the various methods for making 3 D rapid prototypes. This Add On course has provided the students with necessary inputs to carry out their Major Project in the B.Tech IV Year II Semester in the area of rapid prototyping.

Resource Person

HOD

Principal

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
COLLEGE OF ENGINEERING
Nachupally (Kondagattu), JagtialDist. - 505 501, Telangana (India)

PROGRAM REPORT

Date:09/11/2019

ACADEMIC YEAR 2019-20			
Name of the Department	Mechanical Engineering		
Name of the Event	Add-on Course		
Title of the Event	ANSYS Workbench (CFD)		
Resource Person	Dr.SureshArjula, Assistant Professor, Department of ME, JNTUHCEJ.		
Date & Time	17/07/2019 to 06/11/2019 & 2:15 PM to 4:45 PM		
No. of Students Registered	63	**No. of Students Obtained Course Completion Certificate**	56

Objective of the Event:

To provide brief introduction of Computational Fluid Dynamics along with chemical engineering application specifically, analysis of fluid mechanics and heat transfer related problems.

Summary & Outcome of the Event:

This Add on Course provided an opportunity for the students to learn the basic features of modelling and analysis. Learning software's like Creo, Ansys/Multiphysics workbench, easy to use process of design and analysis in various area of fields like structural, thermal, computational fluid dynamics, Electrical/electrostatics, electromagnetic and industries like aerospace, automotive, biomedical, bridges & buildings.

The students have learnt about the various analysis systems like structural analysis, thermal analysis and CFD. This Add On course has provided the students with necessary inputs to carry out their Major Project in the B.Tech IV Year II Semester in the area computational fluid dynamics Applications.

Resource Person HOD Principal

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Nachupally (Kondagattu), Jagtial Dist., Telangana – 505 501

Department of Electronics & Communication Engineering

REPORT ON ADD-ON COURSE WITH OUTCOME

Date : 04-12-2019

Academic Year: 2019-20

Class and Semester: B.Tech III Year I Sem (ECE)

Title of Add-on Course: Network Simulator (NS2) for WSN.

Offered by Department Name and Organization: ECE Department of JNTUHCEJ.

Course Duration: 36 Hours (3 Hours per Week) during 20-07-2019 to 23-11-2019.

Name of the Faculty: S Praveen Kumar, Asst. Prof., ECE, JNTUH CEJ

Number of Students completing the Add-on Course: 63

Summary Report of the Programme with Outcome:

This Add On Course provided an opportunity for the students to learn the basic features of Network Simulator. Network Simulator NS2 is an open-source event-driven simulator designed specifically for research in computer communication networks. Since its inception in 1989, NS2 has continuously gained tremendous interest from industry, academia, and government. Having been under constant investigation and enhancement for years, NS2 now contains modules for numerous network components such as routing, transport layer protocol, and application. The students have learnt about the Linkage Between OTcl and C++ in NS2. This Add On course has provided the students with necessary inputs to carry out their Major Project in the B.Tech IV Year II Semester in the area Wireless Communications and Wireless Sensor Networks.

Signature of Faculty

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Department of Electronics & Communication Engineering

REPORT ON ADD-ON COURSE WITH OUTCOME

Date : 30-11-2019

Academic Year: 2019-20

Class and Semester: B.Tech IV Year I Sem (ECE)

Title of Add-on Course: IoT Through Arduino And Raspberry Pi

Offered by Department Name and Organization: ECE Department of JNTUHCEJ in Association with M/s. ThinkIoT Solutions Pvt. Ltd., Hyderabad.

Course Duration: 36 Hours (3 Hours per Week) during 20-07-2019 to 23-11-2019.

Name of the Faculty: Dr. Dhiraj Sunehra, Prof. & Head, ECE, JNTUH CEJ
Mr. Bhavani Shankar, M/s. ThinkIoT Solutions Pvt. Ltd., Hyderabad

Number of Students completing the Add-on Course: 61

Summary Report of the Programme with Outcome:

This Add-on Course provided an opportunity for the students to learn the basic features of Arduino and Raspberry Pi boards. Using an open source software such as Arduino IDE for programming the Arduino, Demonstrate the interfacing of various sensors and modules with Arduino. The Python programming language is introduced for programming the Raspberry Pi. The students have learnt about the components that are needed to integrate Raspberry Pi for enabling IoT development. Implementation of Remote Data logging and storing the data on Amazon Web server, Webpage development using HTML and PHP are discussed. This Add-on course has provided the students with necessary inputs to carry out their Major Project in the area of Embedded Systems and IoT.

Dhiraj Sunehra

Signature of Faculty

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Department of Computer Science and Engineering

Program Report

Date: 20/11/2019

Name of the Event: Add-on Course on Grid and Cluster Computing

Date/Duration: 20/07/2019 to 16/11/2019

Recourse Persons:

1. Dr. T. Venugopal Professor and Head, Department of Computer Science & Engineering JNTUH College of Engineering Jagtial, Mobile: 9849170691
2. Dr. P. Sammulal, Professor and Head, Department of Computer Science & Engineering JNTUH College of Engineering Jagtial, Mobile: 9441118893

Number of students Attended: 64

Objective of the Event:

- This course explains different types of techniques such distributed computing, parallel computing, grid computing etc.
- To understand Architecture of various commuting techniques.
- To select appropriate computing technique.

Topics Covered:

- Introduction to different form of computing
- Architecture of distributed computing
- Parallel computing
- Grid computing
- Cluster computing
- Open Grid service architecture

Number of students obtained course completion certificate: 59

Faculty Incharge **HOD** **Principal**

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Department of Computer Science and Engineering

Program Report

Date: 20/11/2019

Name of the Event: Add-on Course on Cyber Security

Date/Duration: 20/07/2019 to 16/11/2019

Recourse Person: Dr. P. Swetha, Professor, Department of Computer Science & Engineering JNTUH College of Engineering Jagtial, Mobile: 9398024059

Number of students Attended: 58

Objective of the Event:

- This course explains different types of Cyber Security implementation techniques.
- To understand cyber crimes and cyber attacks.
- To study about security implementation in organizations.

Topics Covered:

- Introduction to cyber security
- Types of Cyber offenses
- Types of Cyber Crimes
- Cyber attacks
- Security for mobiles
- Why do we need cyber laws

Number of students obtained course completion certificate: 53

Faculty Incharge **HOD** **Principal**

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Department of Information Technology

Program Report

Date:22/11/2019

Name of the Event: Add-on Course on Applied Machine Learning

Date/Duration: 15/07/2019 to 22/11/2019

Recourse Person: Dr. Suresh Kumar Sanampudi, Assistant Professor and Head, Department of Information technology, J.N.T.U.H College of Engg Jagtial, Mob: +91-9440936885.

Number of students Attended: 67

Objective of the Event:

- This course explains machine learning techniques such as decision tree learning, Bayesian learning etc.
- To understand computational learning theory.
- To study the pattern comparison techniques.

Topics Covered:

- Introduction to Machine Learning
- Regression
- Unsupervised Learning
- Dimensionality Reduction
- Reinforcement Learning
- Machine Learning Applications

Number of students obtained course completion certificate: 66

Faculty Incharge **HOD** **Principal**

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Department of Information Technology

Program Report

Date: 22/11/2019

Name of the Event: Add-on Course on Digital Image Processing

Date/Duration: 15/07/2019 to 22/11/2019

Recourse Person: Dr. M. Dhana Lakshmi, Professor, IT Dept., JNTUH CEJ.

Number of students Attended:59

Objective of the Event:

- Describe and explain basic principles of digital image processing.
- Design and implement algorithms that perform basic image processing (e.g. Noise removal and image enhancement).
- Design and implement algorithms for advanced image analysis (e.g. Image compression, image segmentation).
- Assess the performance of image processing algorithms and systems.

Topics Covered:

- Introduction and Digital Image Fundamentals
- Image enhancement in spatial domain
- Image Restoration and Reconstruction
- Color Image Processing
- Morphological Image Processing & Image Segmentation
- Object Recognition and Case studies

Number of students obtained course completion certificate:57

Faculty Incharge **HOD** **Principal**

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