



Aditya College of Engineering & Technology

Aditya Nagar, ADB Road, Surampalem - 533437

Summary of Course Outcomes

Academic Year 2016-17

Civil Engineering

I. Reinforced cement concrete detailing

Students will able to

1. Explain properties of cement, aggregate, concrete, admixtures
2. Explain the basic design philosophy behind the Working Stress method
3. Explain the basic design philosophy behind the Limit state method.
4. Explain the preliminary requisites of designing an earthquake resistant structure.

Electrical & Electronics Engineering

I. Power systems analysis on MATLAB

Students will able to learn

1. Ability to evaluate steady state power flow analysis of power system networks using iterative methods using MATLAB
2. Ability to Formulate Y-bus for a given power system network using MATLAB

Mechanical Engineering

I. AutoCAD

Students will able

1. To perform basic sketching techniques.
2. To draw projections and sections.
3. To produce engineered drawings.
4. To draw two-dimensional drawings.
5. To convert 2D TO 3D.

II. CATIA

Students will able

1. To draw sketches in CATIA
2. To draw 3D solid models
3. To draw surface models
4. To do assembly modelling


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III. CFD Simulation

Students will be able to appreciate the utility of the tools like ANSYS or FLUENT in solving real time problems and day to day problems, acquire knowledge on utilizing these tools for a better project in their curriculum as well as they will be prepared to handle industry problems with confidence when it matters to use these tools in their employment.

Electronics & Communication Engineering

I. SS WITH MAT LAB

1. To understand the Mat lab coding and its applications
2. Analyse the Fourier transform of different signals using MAT lab

II. DSP WITH MAT LAB

1. Design the different basic mathematical concepts using MAT lab
2. Analyse the different image processing techniques using MAT lab

COMPUTER SCIENCE ENGINEERING

I. Visualisation tools in Python

Students will be able to

1. Learn the fundamentals of Python's Matplotlib library and its main features
2. Customize objects in Matplotlib
3. Create multiple plots in Matplotlib
4. Customize plots in Matplotlib (annotations, labels, line styles, colours, etc)

II. Software testing using Selenium

Students will be able to

1. Understanding Selenium tool to perform testing
2. Construct and test simple programs
3. 4 Understanding the use of bug tracking and testing tool Bugzilla, Jira

INFORMATION TECHNOLOGY

I. Artificial Intelligence

Students will be able to

1. Solve basic AI based problems
2. Define the concept of Artificial Intelligence
3. Apply AI techniques to real-world problems to develop intelligent systems.

II. Data Visualisation using R

Students will

Become familiar with exploring data and expressing insights via the most often used plotting tool of the R ecosystem.

MBA

I. Banking Products & Services

Students will able to

1. Understand the various services offered and various risks faced by banks
2. Have a practical understanding of the various distribution channels of insurance products for effective marketing.
3. Understand the dynamic changes of the banking industry and the policy responses because of the recent crisis

MCA

I. Applied Data Sciences

Students will able to

1. Apply software development methodologies to create efficient, well-structured applications that other programmers can easily understand.
2. Analyze computational complexity in algorithm development.
3. Investigate research questions and designs by loading, extracting, transforming, and analyzing data from various sources.



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Academic Year 2017-18

Civil Engineering

Reinforced cement concrete detailing

Students will able to

1. Explain properties of cement, aggregate, concrete, admixtures
2. Explain the basic design philosophy behind the Working Stress method
3. Explain the basic design philosophy behind the Limit state method.
4. Explain the preliminary requisites of designing an earthquake resistant structure.

Electrical & Electronics Engineering

II. Power systems analysis on MATLAB

Students will able to learn

1. Ability to evaluate steady state power flow analysis of power system networks using iterative methods using MATLAB
2. Ability to Formulate Y-bus for a given power system network using MATLAB

Mechanical Engineering

I. Welding workshop

Students able to build skills towards industry standards demonstrate safe work habits and learn different welding techniques to develop the necessary skills to get employment.

II. Diagnosis of Refrigeration & Air – Conditioning

Students will able to know the basic concepts of refrigeration system, working of different refrigeration systems, compressors and their maintenance.

III. Workshop on Robotics

Students able

1. To understand the mechanical structure of a Robot.
2. To understand the programming structure in robots.
3. To design simple robots


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Electronics & Communication Engineering

I. COMPUTER HARDWARE AND NETWORKING

1. Understand the concepts of operating systems and its working
2. Identify different computer hardware and trouble shooting.

II. IOT TRAINING FOR ECE

1. Learn the working of IOT and its applications
2. Develop programming skills in arduino environment.

III. JAVA FOR ECE

1. Illustrate the basic principles of the object-oriented programming
2. Demonstrate an introductory understanding of multithreaded programming, recursion and concurrency.

IV. PYTHON FOR ECE

1. To learn how to design and program using Python language.
2. To learn how to use lists, tuples, and dictionaries in Python programs.

V. RHCSA

1. To learn how to design simple shell scripting
2. Understand the concepts of manage basic networks and manage security

VI. SUSTAINABILITY AND ENTERPREUNERSHIP

1. To understand the concepts of entrepreneurship and its applications.
2. Analyse the concepts of market research and social responsibility.

INFORMATION TECHNOLOGY

I. MEAN Stack

Students will able to

1. Structure and implement HTML/CSS.
2. Apply intermediate and advanced web development practices.
3. Implement basic JavaScript.
4. Create visualizations in accordance with UI/UX theories.

II. Angular JS

Students will able to

1. understand the compiler for building better and more propelled orders
2. Utilize the testing system (Jasmine BDD) to test the web applications
3. Organize the web application utilizing the vigorous index structure
4. Organize, composing, and ultimately sending the application



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MBA

I. Banking Products & Services

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2. Have a practical understanding of the various distribution channels of insurance products for effective marketing.
3. Understand the dynamic changes of the banking industry and the policy responses because of the recent crisis

MCA

I. Devops

Students will able to

1. Understand the concepts of DevOps and the issues it resolves
2. Learn common Infrastructure Servers, Availability and Scalability
3. Understand Distributed versioning system Implement Automated Installations



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Academic Year 2018-19

Civil Engineering

AUTOCAD & STAND PRO:

Students will learn to

1. Make realistic model with use of Materials, Lighting and Rendering
2. Create Animation

Electrical & Electronics Engineering

1. Power systems analysis on MATLAB

Students will able to learn

1. Ability to evaluate steady state power flow analysis of power system networks using iterative methods using MATLAB
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Mechanical Engineering

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Electronics & Communication Engineering

I. CYBER SECURITY ESSENTIALS

1. To prepare students how to protect the systems and networks from data thefting.


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2. Understand the different cyber-attacks and cyber security laws

II. INTRODUCTION TO JAVA FOR ECE

1. Illustrate the basic principles of the object-oriented programming
2. Demonstrate an introductory understanding of multithreaded programming, recursion and concurrency.

III. PYTHON FOR ECE

1. To learn how to design and program using Python language.
2. To learn how to use lists, tuples, and dictionaries in Python programs.

IV. ROBOTICS

1. Understand the design and programming of robots.
2. Analyse the working of different robots and its applications.

V. IOT TRAINING FOR ECE

1. Learn the concepts and working of IOT and its applications
2. Develop programming skills in arduino environment.

COMPUTER SCIENCE ENGINEERING

I. RHCSA(Red Hat Certified System Administrator)

Students will able to

1. Understand and use essential tools for handling files, directories, command-line environments, and documentation
2. Create simple shell scripts
3. Operate running systems, including booting into different run levels, identifying processes, starting and stopping virtual machines, and controlling services

II. MEAN Stack

Students will able to

1. Structure and implement HTML/CSS.
2. Apply intermediate and advanced web development practices.
3. Implement basic JavaScript.
4. Create visualizations in accordance with UI/UX theories.

MBA

I. Banking Products & Services

1. Students will able to



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2. Understand the various services offered and various risks faced by banks
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1. Understand the concepts of Devops and the issues it resolves
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Academic Year 2019-20

CIVIL Engineering

I. Reinforced cement concrete detailing

Students will able to

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2. Explain the basic design philosophy behind the Working Stress method
3. Explain the basic design philosophy behind the Limit state method.
4. Explain the preliminary requisites of designing an earthquake resistant structure.

II. Revit

Students will learn to

1. Develop higher-quality, more accurate architectural designs; use tools specifically built to support Building Information Modelling workflows.
2. Capture and analyse concepts, and maintain your vision through design, documentation, and construction.

III. TEKLA

Students will learn to

1. Navigate through the software
2. Generate the model into 2D drawings

Electrical & Electronics Engineering

I. PLC Programming Applications

Students will be able to learn

1. Ability to Design Logic Gates using PLC Program
2. Ability to Analyze Response of Electrical Devices using PLC Program

Mechanical Engineering

I. AutoCAD

Students will able

1. To perform basic sketching techniques.
2. To draw projections and sections.
3. To produce engineered drawings.
4. To draw two-dimensional drawings.


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5. To convert 2D TO 3D.

II. CATIA

Students will able

1. To draw sketches in CATIA
2. To draw 3D solid models
3. To draw surface models
4. To do assembly modeling

III. Introduction to Ansys Using CFD

Students will able

1. To know the basic tools of ANSYS
2. To learn different partial differential equations and apply in problem solving
3. To learn different post processing techniques in CFD and know how to apply in heat transfer problems.

IV. SOLIDWORKS

Students will able learn how to use solid works for designing various parts, assembly modelling and surface modelling.

Electronics & Communication Engineering

I. AWS MACHINE LEARNING

1. Understand the concepts of cloud computing and AWS architecture
2. Learn the AWS security and how to Configure Amazon Virtual Private Cloud (VPC)

II. BUILDING ROBOTS WITH TJBOT

1. To learn the basic programming of NODE-RED used for the design of NODE-RED
2. Examine different experiments on TJBOT using NODE-RED simulator

III. PYTHON FOR ECE

1. To learn how to design and program using Python language.
2. To learn how to use lists, tuples, and dictionaries in Python programs.

IV. GOOGLE CLOUD PLATFORM FUNDAMENTALS CORE INFRASTRUCTURE

1. Understand the concepts of Google cloud and its applications.
2. Learn the concepts such as Developing, Deploying and Monitoring in the Cloud

V. SS WITH MAT LAB

1. To understand the Mat lab coding and its applications
2. Analyse the Fourier transform of different signals using MAT lab

VI. DSP WITH MAT LAB

1. Design the different basic mathematical concepts using mat lab
2. Analyse the different image processing techniques using MAT lab

VII. NDG LINUX ESSENTIALS

1. To learn the Linux programming skills and applications
2. Understand the concepts of Network Configuration, System and User Security.

VIII. ROBOTICS

1. Understand the design and programming of robots.
2. Analyse the working of different robots and its applications.

IX. SOLVE A THON

1. To have knowledge of ideation and problem solving.
2. Learn the skills such as prototyping and design solutions.

COMPUTER SCIENCE ENGINEERING

I. RPA (UiPath)

Students will able to

1. To create and debug workflows using UiPath
2. Understand the basics of Robotic Process Automation
3. Identify processes which can be automated
4. Setup the environment

II. Machine Learning

Students will able to

1. Understand a wide variety of learning algorithms
2. Understand how to evaluate models generated from data
3. Apply the algorithms to a real problem, optimize the models learned and report on the expected accuracy that can be achieved by applying the models

III. Software testing using Selenium

Students will able to

1. Understanding Selenium tool to perform testing
2. Construct and test simple programs


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3. For Understanding the use of bug tracking and testing tool Bugzilla, Jira

IV. Visualization tools in Python

Students will able to

1. Learn the fundamentals of Python's Matplotlib library and its main features
2. Customize objects in Matplotlib
3. Create multiple plots in Matplotlib
4. Customize plots in Matplotlib (annotations, labels, linestyle, colors, etc)

V. 2D GAMING

Students will able to

1. Design platform specific levels for original game concepts.
2. Define successful game level design

INFORMATION TECHNOLOGY

I. Data Visualisation using R

Students will

Become familiar with exploring data and expressing insights via the most often used plotting tool of the R ecosystem.

II. Artificial Intelligence

Students will able to

1. Solve basic AI based problems
2. Define the concept of Artificial Intelligence
3. Apply AI techniques to real-world problems to develop intelligent systems.

III. Augument reality

Students will able to

1. Design, create, and integrate audio, visual, and interactive elements into a comprehensive immersive experience.
2. Develop content for successful delivery across multiple platforms, including PC, mobile devices and head-mounted displays.
3. Evaluate current trends of AR and VR media delivery to propose options to potential clients, and discuss the benefits, challenges and misconceptions involved with working in AR and VR.

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Academic Year 2020-21

CIVIL Engineering

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Electrical & Electronics Engineering

II. PLC Programming Applications

Students will be able to learn

1. Ability to Design Logic Gates using PLC Program
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Mechanical Engineering

I. Implementation of Meshing methods in CFD

Students will be able

1. To know the basic tools of ANSYS
2. To learn different partial differential equations and apply in problem solving
3. To know meshing methods and grid generation
4. To learn different post processing techniques in CFD and know how to apply in heat transfer problems.
5. To solve problems by using MATLAB

II. Design and Simulation using Ansys Workbench

Students will be able to learn about ANSYS tools, meshing methods, post processing techniques which will apply in heat transfer problems. Problems on fluid flow and heat transfer through pipes problems will be practiced.

Electronics & Communication Engineering

I. C training for ECE

1. Understanding branching, iteration and data representation using arrays
2. Understanding pointers and files

MBA

I. Banking Products & Services

Students will able to

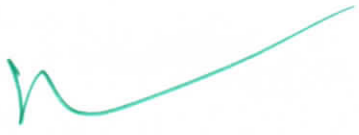
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