

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF CIVIL ENGINEERING
Academic year (2014 – 2015)
International Certification Programme on AutoCAD

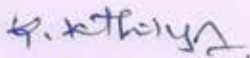
Semester/Brach: III Semester B.E. Civil Engineering

Course Date: 12.12.2014 to 20.12.2014

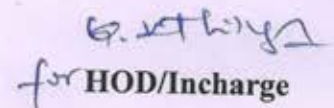
Objective of Course: To develop skill to use software to create 2D and 3D models.

Value added course Syllabus:

- Introduction to AutoCAD.
- 2D Drafting – Basic setup, Coordinate System, Line, Polygon, Arc, Circles, Move, Rotate, Array, Trim, Extend, Scale, Stretch, Fillet, Chamfer, Explode, Object Selection Method.
- Properties, Match Properties, Block, Block Editor, Hatch, Single Line Text, Multi Line Text, Dimensioning, Dimension Styles.
- Layer, Multileader, Isometric, Setting Isoplanes, Isometric Dimensioning, Parametric Constraints & Dimensioning, View Port, Layout.
- Introduction to 3D Creation Concept, Primitive Solids, Extrude, Revolve, Sweep, Loft, 3D array, Move, Rotate.
- Smooth Mesh, Surface Creation, Surface Editing, Rendering Materials, Light, Applying Materials, Animation, Script Concepts.



Signature of the co-ordinator


for HOD/Incharge

RAMCO INSTITUTE OF TECHNOLOGY
Department of Computer Science and Engineering
Academic Year: 2014-2015

Value Added Course on Java SE7 Programming

Semester/ Branch: IV / CSE

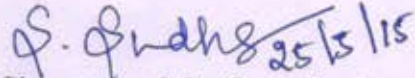
Objective of the Course:

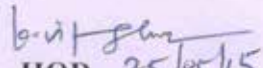
- To understand fundamentals of object-oriented programming in Java
- Make the students to write java program to solve specified problems

Course Duration: 25.05.2015 to 30.05.2015(6 days)

Value Added Course Syllabus

- Introduction to Java programming
- Object-oriented programming with Java Classes and Objects
- Branching Statements and Looping Statements
- Arrays and Strings
- Functions, Method Overloading
- Constructors and destructors
- Inheritance
- Virtual function and Exception handling
- Multi-threading


Signature of the Coordinator


HOD 25/05/15

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
Academic year (2014 - 2015)
ARDUINO

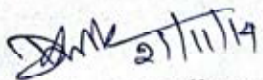
Semester/Brach: III/EEE

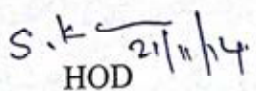
Course Date: 09.12.2014 to 13.12.2014

Objective of Course: To improve the skill and knowledge in the areas of design and implementation of various prototype models of real time engineering systems using arduino programming.

Value added course Syllabus:

- Introduction – Embedded system – Microcontroller/Microprocessor – Types – Pin Details - Difference – Real time Application.
- Arduino Introduction – Atmega328 Microcontroller – Arduino Pin Details –Specification of Arduino Prototypes – Types – Interface with computer.
- Installation of Arduino IDE – Configuration Setting – Testing Arduino Board – Working With Arduino IDE - Explanation of Structure, Functions, Variables, Data types – Sample Program.
- Blinking LED and IR module Program – Explanation - Upload Program to Arduino Board – Testing Output.
- Assemble Robotic Parts – Circuit Construction for Line Follower Robot and Obstacles Avoider Robot – Testing Robots.
- Button Program – Explanation – Upload to Arduino Board – Testing Output, Loop Program – Explanation – Upload to Arduino Board – Testing Output.
- Analog Input Program – Explanation – Upload to Arduino Board – Testing Output, Physical Pixel Program – Explanation – Upload to Arduino Board – Testing Output.
- Installation of Proteus 7 IDE – Working With Proteus ISIS Circuit, Simulator – Draw Sample circuit – Run Simulation.


Signature of the co-ordinator

S.K. 
HOD
[S.KANNAN]

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
Academic year (2014 - 2015)
Raspberry Pi

Semester/Brach: IV/EEE

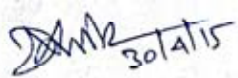
Course Date: 26.05.2015 to 31.05.2015

Objective of Course:

- To understand the basics of programming languages using on Raspberry PI
- To train the students to start up with Raspberry Pi board and its installation.

Value added course Syllabus:

- Introduction to ARM processors-Architecture of ARM 9 and ARM 11-Internal modules of ARM-Registers-General purpose IO-ADC-DAC-Serial ports and Interrupts.
- Introduction to Raspberry Pi board and installation-Configuration of R-Pi-Preparation of booting SD card-Networking with host computer-Basic Linux Commands and interfacing-GUI interface
- Introduction to programming the R-pi-Programming python on R-Pi-Programming C on R-Pi-Managing files and Directories-Inputs-Variables and loops-Simple game development.
- R-Pi interface connection with GPIO-JTAG-AUDIO-Video-SDCARD-USB-drivers-Basic applications developments-Interfacing sensors and LCD display.
- Programming choices-Camera Interface-GPS and GSM interface-Mini projects using motors and sensors-Final project.


30/4/15
Signature of the co-ordinator

S. K. R.
30/04/15
HOD
[S. KANNAN]

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
Academic year (2014 - 2015)
MATLAB and Simulink

Semester/Brach: IV ECE

Course Date: 26.05.2015 to 30.05.2015

Objective of Course: To make the students to learn about the MATLAB and Simulink software.

Value added course Syllabus:

- Introduction & Installation procedure of MATLAB software.
- Hands on training about GUI programming and basic signal processing operation.
- Sine wave generation, plotting the waveform, image read operation, Simulink fundamentals and controller design.
- Introduction about Arduino & Raspberry Pi hardware.
- Simple programs in Arduino & Raspberry Pi hardware using MATLAB software.



Signature of the co-ordinator



HOD 27/5/15

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING
Academic year (2014 - 2015)
International Certification Programme on AutoCAD

Semester/Brach: III Semester B.E Mechanical Engineering


Course Date: 04.12.2014 to 12.12.2014

Objective of Course:

The main **objective** of this **course** is to equip the students in Basics of Drafting Software and current technologies to reduce the gap between academic and industry.

Value added course Syllabus:

- INTRODUCTION TO AUTOCAD
- GETTING STARTED WITH AUTOCAD
- STARTING WITH ADVANCED SKETCHING
- WORKING WITH DRAWING AIDS
- EDITING SKETCHED OBJECTS-I
- EDITING SKETCHED OBJECTS-II
- CREATING TEXT AND TABLES
- BASIC DIMENSIONING, GEOMETRIC DIMENSIONING, AND TOLERANCING
- EDITING DIMENSIONS
- DIMENSION STYLES, MULTILEADER STYLES, AND SYSTEM VARIABLES
- MODEL SPACE VIEWPORTS, PAPER SPACE VIEWPORTS, AND LAYOUTS
- PLOTTING DRAWINGS
- HATCHING DRAWINGS
- WORKING WITH BLOCKS
- INTERNATIONAL CERTIFICATION EXAM


Signature of the co-ordinator


HOD

RAMCO INSTITUTE OF TECHNOLOGY
Department of Computer Science and Engineering
Academic Year: 2015-2016

Value Added Course on Core Java

Semester / Branch: IV / CSE

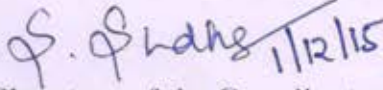
Objective of the Course:

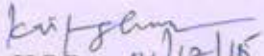
- To gain the knowledge of object oriented paradigm in the Java programming language
- To know the use of Java in a variety of technologies and on different platforms.

Course Duration: 01.12.2015 to 05.12.2015(5 days)

Value Added Course Syllabus

- Role of Java in Programming
- Introduction to the structure, syntax and programming paradigm of the Java language
- Essentials of OOPS on the Java platform
- Fundamental Java syntax
- Classes and methods in Java
- Overview of Java Platform - JDK, Eclipse IDE
- Exception Handling, Polymorphism
- Abstract Classes and Generic Programming
- Inbuilt String functions, constructors, destructors
- Inheritance and role of API


Signature of the Coordinator


HOD 01/12/15

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
Academic year (2015 - 2016)
PLC and SCADA

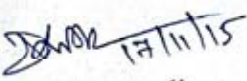
Semester/Brach: V/EEE

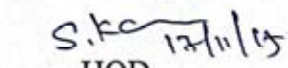
Course Date: 02.12.2015 to 06.12.2015

Objective of Course: To understand the fundamentals of automation and various automation systems used in industry such as PLC, SCADA and also to determine hardware and software requirements of PLC, SCADA.

Value added course Syllabus:

- Introduction to stardom PLC & system configuration, Interfacing with Ethernet port, FEN and FJN
- Software settings, I/O module, Base module, Programming methods (FBD, LD) & simple logical program using FD, Open loop and closed loop
- Comparator. Function, move block and timer, Creation of loop NPAS_SIO_II
- Introduction to user defined block, Introduction to LADDER diagram, Introduction to structured port, NC, NO and rail coil
- Programs using sensors, motor and pump valve using PLC, Generation of loop and advantages of LADDER, Creation of function block and structured text, Program using structured text
- Introduction to SCADA and Fast tools, Tutorial session and I/O processing, Interfacing with PLC hardware
- Interfacing with PLC hardware and server, Test on SCADA


Signature of the co-ordinator


HOD
[S. KANNAN]

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
Academic year (2015 - 2016)
ARDUINO

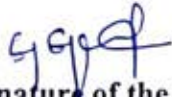
Semester/Brach: III ECE

Course Date: 04.12.2015 to 08.12.2015


Objective of Course: To make the students to learn about the Arduino board.

Value added course Syllabus:

- Introduction to Induino and Arduino Boards, blinking of LED experiments.
- Switch interfacing, serial communication, LDR interfacing and DC motor interfacing.
- Temperature sensor interfacing, ultrasonic sensor interfacing and PIR sensor interfacing.
- LCD display interfacing, Seven segment display interfacing and Line follower robot - DIY using Arduino board.



Signature of the co-ordinator



HOD

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
Academic year (2015 - 2016)
VLSI Design & Simulation

Semester/Brach: V ECE


Course Date: 14.12.2015 to 18.12.2015

Objective of Course: To make the students to learn about the VLSI Simulation Software's.

Value added course Syllabus:

- Introduction to FPGA, Design flow and its methods.
- Verilog and VHDL language for the data flow, behavioural and structural methods simulation using Xilinx tool.
- FPGA Implementation by using Xilinx Spartan 3E and the Critical path, static timing analysis, power and area measurements.
- Simple MOS transistor and amplifiers by using Cadence Analog Design Workflow.
- Practical classes on Layout generation and Clock routing.


Signature of the co-ordinator

 19/11/15
HOD

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING
Academic year (2015 - 2016)
Autodesk Inventor 2016 – Digital Prototyping

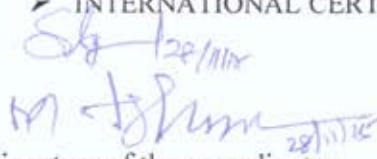
Semester/Brach: V Semester B.E Mechanical Engineering
Course Date: 28.11.2015 to 05.12.2015

Objective of Course:

The main **objective** of this **course** is to equip the students in latest Autodesk Software to improve the employability of the students and current technologies to reduce the gap between academic and industry.

Value added course Syllabus:

- INTRODUCTION TO AUTODESK INVENTOR 2016
- GETTING STARTED WITH AUTODESK INVENTOR 2016
- STARTING WITH ADVANCED SKETCHING
- WORKING WITH DRAWING AIDS
- EDITING SKETCHED OBJECTS-I
- EDITING SKETCHED OBJECTS-II
- CREATING TEXT AND TABLES
- BASIC DIMENSIONING, GEOMETRIC DIMENSIONING, AND TOLERANCING
- MODEL SPACE VIEWPORTS, PAPER SPACE VIEWPORTS, AND LAYOUTS
- PLOTTING DRAWINGS, HATCHING DRAWINGS
- 3D MODELLING, EXTRUDE, REVOLVE, ARRAY, MIRROR
- WORKFLOW IN ASSEMBLY
- DOCUMENTATION
- SIMULATION AND VALIDATION
- MANUFACTURING AND SERVICE
- MECHANICAL DESIGN
- INTERNATIONAL CERTIFICATION EXAM


Signature of the co-ordinator


HOD

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
Academic Year (2016-2017)

Core Java

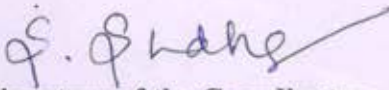
Semester/Branch: V Semester CSE

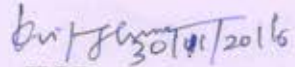
Course date: 30.11.2016 to 05.12.2016

Objective of the course: Develop codes in java implementing Object oriented concepts. Utilize the advanced class features including inheritance, polymorphism, overloading, overriding, interfacing, abstract classes and more to develop efficient and reusable codes. Create Programs using generic Collections.

Value Added Course Syllabus

- Overview of programming in JAVA
- Data types, Variables, Operators
- Control Statements, Iteration statements
- Simple Programs using JAVA
- Methods, Array, Class, Inheritance
- Method Overloading and overriding
- Abstract Class and Methods
- Interfaces, Packages, Access Control
- Final and static keyword.
- Exceptions
- Multithreading, Java Thread model
- Synchronization
- Collection Framework
- Utility classes
- JSP
- JDBC


Signature of the Coordinator


HOD

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
Academic year (2016 - 2017)
Arduino with IoT

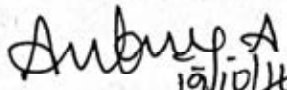
Semester/Brach: III/EEE

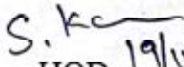
Course Date: 25.11.2016 to 30.11.2016

Objective of Course: To understanding of fundamental arduino with IoT paradigms, architectures, possibilities and challenges, both with respect to software and hardware

Value added course Syllabus:

- Introduction to Course, Objective of the course, Introduction to Induino Board and Interfacing of LED.
- Interfacing of Switch, Serial communication, Light Dependent Resistor (LDR) and DC Motor with Induino Board.
- Interfacing of temperature sensor, MATLAB, Ultrasonic sensor and PIR sensor with Induino Board.
- Interfacing of LCD, Seven Segment Display with Induino Board. Making of Line Follower Robot.
- Introduction to IoT, Device Control, Data monitoring and Cayenne App.


Signature of the co-ordinator


HOD 19/10/16

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
Academic year (2016 - 2017)
LabVIEW

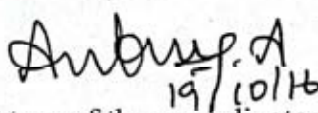
Semester/Brach: V/EEE

Course Date: 12.12.2016 to 16.12.2016

Objective of Course: To develop basic applications in the LabVIEW graphical programming environment and to design and implement single loop and multiple loop design patterns using LabVIEW.

Value added course Syllabus:

- Concept of Loop structures (for loop and while loop) Cluster and Array.
- Introduction to frames, Case structure and its attributes
- Controlling concepts of washing machine control and seven segment LED using case structure.
- Sequence structures, example of Traffic Light Glowing and state machine.
- Hands on training on Generation of Sine wave and square wave using My DAQ


19/10/16
Signature of the co-ordinator

S. K. C. 19/10/16
HOD

RAMCO INSTITUTE OF TECHNOLOGY
Department of Computer Science and Engineering
Academic Year: 2016- 2017 (Odd Semester)
Audit Course: Python Programming

Semester & Branch: V Semester B.E. CSE

Course Date: 02.07.2016 - 27.09.2016

Objective of Course:

1. To make the students to practice the basics of programming in Python with concepts of Expressions, Operators and Types.
2. To make the students to understand the concepts of Python Data Structures- List, Tuples.
3. To familiarize the students to understand the concepts of Python Data Structures- Function, Files.

Syllabus:

UNIT I Introduction to Python Programming

Introduction to Python- Features of Python - Setting up python- Environment variables- Working with IDLE in windows - Basic Syntax- Variable Types- Operators- Decision making and loops.

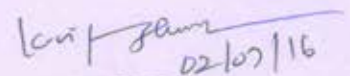
UNIT II Python Data Structures - Lists, Tuples

Numbers-Number functions- Strings-Triple quotes-Built-in string methods- Lists-Basic Lists operations-Indexing, Slicing, Matrices, Tuples-Accessing, Updating, Indexing, Slicing- Built-in Tuple functions- Dictionary-Built-in Dictionary functions and methods.

UNIT III Python Data Structures - Functions, Files

Functions-Introduction-Calling a Function-Pass by value, Pass by reference- Function arguments, Scope of variables – Files-Opening and closing files- write, read methods, File positions.


Signature of the Co-Ordinator


02/07/16
HOD/CSE

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
Academic year (2016 - 2017)
Internet of Things (IoT) with Raspberry Pi

Semester/Brach: V ECE

Course Date: 28.11.2016 to 03.12.2016

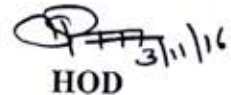
Objective of Course: To make the students to learn about the Raspberry Pi board.

Value added course Syllabus:

- Introduction of Raspberry Pi Board and the basic programming using Python.
- LED interfacing and Traffic Light control using the Raspberry Pi board.
- Switch interfacing, Push Button interfacing with LED, Ultrasonic sensor interfacing and PIR sensor interfacing.
- Accelerometer interfacing, LCD interfacing, Seven Segment Display Interfacing and Servomotor Interfacing.
- Serial Communication and SMS Alert over the Internet using PIR sensor.
- Data Monitoring and Home Automation using Raspberry Cayenne App.
- Uploading Sensor data in Web IP address using Raspberry Pi Access Point.



Signature of the co-ordinator



HOD

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF CIVIL ENGINEERING
Value added Course for Winter Vacation (16.11.2017 - 18.11.2017)
REVIT 2016 -Course Schedule

Revit Architecture 2016				
Date	Duration	Sl.No.	Contents	Faculty
16.11.17	9.00 AM to 10.40 AM	1	Introduction to Autodesk, Building Information Modeling, Transformation from 3rd dimension to 7th Dimension.	Mrs.D.Darling Helen Lydia
		2	Developing a building layout based on centre line floor plan by placing walls, doors and windows, Section and Elevation.	Mrs.C.Subha
	11.00 AM to 12.35 PM	3	Practice Session.	Mrs.C.Subha & Mrs.D.Darling Helen Lydia
	1.25 PM to 3.05 PM	4	Instance and type parameters, Defining new wall type and creating new materials, wall opening, Applying paint and split face, Types of Revit elements, Modification tools, Wall sweep, Creation of floors.	Mrs.D.Darling Helen Lydia
	3.05 PM to 5.00 PM	5	Practice Session.	Mrs.C.Subha & Mrs.D.Darling Helen Lydia
17.11.17	9.00 AM to 10.40 AM	6	Types of Revit elements, Staircase, Railing, camera, Rendering, Walkthrough.	Mrs.C.Subha
	11.00 AM to 12.35 PM	7	Practice Session.	Mrs.C.Subha & Mrs.D.Darling Helen Lydia
	1.25 PM to 3.05 PM	8	Creation of Ceiling and Roofing, Placing door in curtain wall.	Mrs.D.Darling Helen Lydia
	3.05 PM to 5.00 PM	9	Practice Session.	Mrs.C.Subha & Mrs.D.Darling Helen Lydia
18.11.17	9.00 AM to 10.40 AM	10	Detailing view by adding dimension, text, filled region, Tags and symbols, modifying to multistorey structure, shaft opening.	Mrs.D.Darling Helen Lydia
	11.00 AM to 12.35 PM	11	Practice Session.	Mrs.C.Subha & Mrs.D.Darling Helen Lydia
	1.25 PM to 3.05 PM	12	Creating new views, call out, door schedule, wall material take off, Site topography and landscaping, Model text and Practice session.	Mrs.C.Subha
	3.05 PM to 5.00 PM	13	Internal Assessment.	Mrs.C.Subha & Mrs.D.Darling Helen Lydia

e.g.vil
Faculty Incharge

G. K. K. K.
HOD/Incharge
 16/11/17

K. K.
Principal
 16/11/17

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF CIVIL ENGINEERING
Academic year (2018 – 2019)
STAAD.Pro V8i

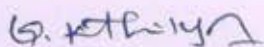
Semester/Brach: V and VII Semester B.E. Civil Engineering

Course Date: 18.06.2018 to 21.06.2018

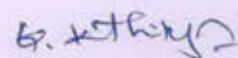
Objective of Course: To analyze and design of structures using Staad.Pro.

Value added course Syllabus:

- Basics on civil engineering – Know the software - Introduction to STAAD – Introduction of ETABS.
- Modelling.
- Starting a project - Modeling a structure Creating Nodes & Members.
- Geometry wizard - Property definition - Material definition.
- Loading.
- Support definition – Specifications.
- Nodal load - Member loads - Uniform Force and Moment - Concentrated Force and Moment.
- Linear Varying Load - Trapezoidal Load - Hydrostatic Load - Area load - Floor load.
- Load definitions.
- Specification – Torsional load - Wind load - Creating Load Combination.
- Automatic Load Combination - Edit Auto Load Rules.
- Moving load - Seismic load.
- Analysis and Design.
- Frame Analysis – Concrete Design.
- Property checking – Element detailing – Reinforcement details.



Signature of the co-ordinator



HOD/Incharge

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
Academic year (2017 - 2018)
Preparatory Course for Semiconductor Test Engineering

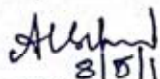
Semester/Brach: VI/EEE

Course Date: 11.06.2018 to 15.06.2018

Objective of Course: To impart knowledge and employability opportunity in the field of semiconductor test engineering in the core industry.

Value added course Syllabus:

- Introduction to the course/Tessolve semiconductor Pvt. Ltd.
- Circuit Analysis and Basic Electronics.
- Digital Electronics.
- Engineering Management.
- Measurements and Instrumentation.
- Integrated Circuits/Analog Electronics.
- Data sheet interpretation.


3/5/18
Signature of the co-ordinator

S. K. 08/05/18
HOD

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
Academic year (2017 - 2018)
Problem Solving and Logical Building on Programming

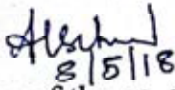
Semester/Brach: II/EEE

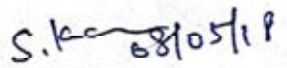
Course Date: 25.06.2018 to 29.06.2018

Objective of Course: To impart the fundamentals of C programming languages and to impart knowledge on problem solving, logical building using C programming.

Value added course Syllabus:

- C program structure and basic syntax.
- Data type and variables.
- Constants and literals.
- Different storage classes.
- Operators, flow control and arrays.
- Null pointer, pointer arithmetic, incrementing pointer, decrementing pointer, comparison, array of pointer, passing and return pointer.
- Structure, unions, typedef, scanf() and printf() function.
- Study of preprocessor.
- Header files, type casting, Memory management and command line arguments.


Signature of the co-ordinator


HOD

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
Academic year (2017 - 2018)
VLSI Cadence

Semester/Brach: V ECE

Course Date: 04.12.2017 to 08.12.2017

Objective of Course: To make the students to learn about the VLSI CADENCE software.

Value added course Syllabus:

- Introduction of basics of VLSI Design and concepts of Verilog Programming.
- Introduction to FPGA, Design flow and its methods.
- Simulation using Xilinx tool.
- FPGA Implementation by using Xilinx Spartan 3E and the Critical path, static timing analysis, power and area measurements.
- Simple MOS transistor and amplifiers by using Cadence Analog Design Workflow.
- Layout generation and Clock routing.
- Power measurement and the static timing analysis using Cadence tool.



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RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING
Academic year (2017 - 2018)
3D Printing & 3D Scanning with GD&T

Semester/Brach: V Semester B.E Mechanical Engineering
Course Date: 15.11.2017 to 18.11.2017

Objective of Course:

The main **objective** of this **course** is to discover themselves the potential and limitations of 3D printing through a build intensive design project. This course is an excellent option for anyone who ever wanted to prototype an invention, create a work of art, customize a product.

Value added course Syllabus:

- INTRODUCTION OF 3D PRINTING
- EVOLUTION OF 3D PRINTING
- ADDITIVE MANUFACTURING
- GENERAL PROCEDURE OF 3D PRINTING
- 3D CAD FILE FORMATS
- STEREO LITHOGRAPHY (STL) FILES
- VARIOUS PRINTING TECHNOLOGIES (SLA, SLS, FDM, POLY JET PRINTING, COLOR JET PRINTING, SHS, SLM, LOM, MULTI JET PRINTING, DLP)
- FDM IN DETAIL
- OPERATING PLASTO 200 - LIVE DEMONSTRATION
- STL PRINCIPLES
- OBJECT PLACEMENT
- OBJECT ANALYSIS
- SLICING AND PRINTING
- PRINT SETTINGS


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RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING
Academic year (2017 - 2018)
AUTODESK INVENTOR 2016


Semester/Brach: V Semester B.E Mechanical Engineering
Course Date: 15.11.2017 to 18.11.2017

Objective of Course:

The main objective of this course is to equip the students in latest Autodesk Software to improve the employability of the students and current technologies to reduce the gap between academic and industry.

Value added course Syllabus:

- INTRODUCTION TO AUTODESK INVENTOR 2016
- GETTING STARTED WITH AUTODESK INVENTOR 2016
- STARTING WITH ADVANCED SKETCHING
- WORKING WITH DRAWING AIDS
- EDITING SKETCHED OBJECTS-I
- EDITING SKETCHED OBJECTS-II
- CREATING TEXT AND TABLES
- BASIC DIMENSIONING, GEOMETRIC DIMENSIONING, AND TOLERANCING
- MODEL SPACE VIEWPORTS, PAPER SPACE VIEWPORTS, AND LAYOUTS
- PLOTTING DRAWINGS, HATCHING DRAWINGS
- 3D MODELLING, EXTRUDE, REVOLVE, ARRAY, MIRROR
- WORKFLOW IN ASSEMBLY
- DOCUMENTATION
- SIMULATION AND VALIDATION
- MANUFACTURING AND SERVICE
- MECHANICAL DESIGN


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HOD

RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
Academic year (2017 - 2018)
TESSOLVE SEMICONDUCTORS IC TESTING

Semester/Brach: VII ECE

Course Date: 13.06.2018 to 18.06.2018

Objective of Course: To make the students to learn about basic electronic concepts for Tessolve Semiconductors IC Testing.

Value added course Syllabus:

- Analysis of diode circuits using resistor and capacitor for solving its voltage and current.
- Laws and theorems used in different circuits, resistance and capacitor parallel combination simplification, voltage and current rise for capacitor and inductor.
- Concept of Op-amps and application of its inverting and Non inverting amplifier, Instrumentation amplifier, logarithmic and antilogarithmic amplifier.
- Types of signals such as continuous and discrete signals, Application of Fourier series, Fourier transform, Z transform and Laplace Transform.
- Various digital modulation techniques.
- Application of BJT and Mosfet in amplifier with various circuit configuration.
- Logic gates, flip flops, counter, filters & microcontrollers.
- Introduction about using LGLiteATE kit.
- Data sheet interpretation like critical information available in datasheet, electrical specification table, maximum/minimum/typical values in datasheet.


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RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
Academic year (2017 - 2018)
WIRELESS COMMUNICATION PROTOCOLS

Semester/Brach: VII ECE

Course Date: 13.06.2018 to 18.06.2018

**Objective of Course: To make the students to learn about various Wireless
Communication Protocols and its Real time applications.**

Value added course Syllabus:

- Introduction of Raspberry Pi Board and the basic programming using Python.
- Interfacing of Bluetooth using the Raspberry Pi board.
- Bluetooth low energy (BLE) technologies and their layers.
- Embedded system protocols and Serial peripheral interface (SPI), I²C.
- Mini projects under Wireless communication protocols with Raspberry Pi.


Signature of the co-ordinator

 2/5/18
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RAMCO INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING
Academic year (2017 - 2018)
ABAQUS®


Semester/Brach: VII Semester B.E Mechanical Engineering
Course Date: 10.05.2018 to 15.05.2018

Objective of Course:

The main **objective** of this **course** is to learn comprehensive and unified introduction to modeling and analysis capabilities of Abaqus. It teaches you how to solve linear and nonlinear problems, submit and monitor analysis jobs and view simulation results using the interactive interface of Abaqus..

Value added course Syllabus:

- OVERVIEW OF ABAQUS FEA SOFTWARE
- LINEAR STATIC AND NON LINEAR DYNAMIC ANALYSIS PROBLEM
- CREATING AND ANALYSING A MODEL USING THE ABAQUS
- ASSEMBLY MODULE, STEP MODULE & INTERACTION MODULE
- LOAD MODULE, MESH MODULE & OPTIMIZATION MODULE
- JOB MODULE, SKETCH MODULE, MODELLING TECHNIQUES & OVERVIEW


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