List of Value Added Courses offered during the Academic Year 2020-21

PROGRAMME NAME	VALUE ADDED COURSE
B.E. / Mechanical Engineering	Computational Fluid Dynamics
M.E. / CAD / CAM	Master CAM
B.E. / Computer Science and Engineering	Network Simulator
	Ruby On Rails
	.Net Framework
M.E. / Computer Science and Engineering	Cyber Security
B.E. / Electronics and Communication Engineering	Programming in C
	Programming in C++
	Java Programming
M.E. / Communication Systems	Java Programming
B.E. / Electrical and Electronics Engineering	Domestic and Industrial Wiring
	Hands on Training on Arduino
	Hands on Training on PLC and SCADA
M.E. / Power Electronics and Drives	Embedded system
B.Tech. / Information Technology	Corel draw
	R Programming
B.E. / Civil Engineering	Analysis & Design of Framing Structures
M.E. / Structural Engineering	Tekla Structures
B.E. / Agriculture Engineering	Design of Millet Processing Equipment
B.E. / Biomedical Engineering	Mimics - 3D Medical Image Processing Software
B.Tech. / Chemical Engineering	Process Simulation and Design

CHIEF PATRON

Mr. S. MOHAMED JALEEL

Chairman

PATRONS

Mr. S. M. SEENI MOHAIDEEN

Chief Executive Officer

Mr. S. M. SEENI MOHAMED ALIAR MARAIKKAYAR

Joint Chief Executive Officer

Dr. A. SENTHIL KUMAR

Principal

Dr. G.D. SIVAKUMAR

Vice Principal

CONVENOR

Dr. C. MUTHUSAMY

HOD/ Mechanical

CO ORDINATORS

Mr. V. ANANDA NATARAJAN

Mr. K. AMIRTHARAJ

Dr. P. GANESHAN

Mr. J. DAVID GNANARAJ

ABOUT THE PROGRAMME

The main objective of the course is to make you understand how CFD is used as a design tool. You will be learning fundamental knowledge of fluid dynamics, theory of CFD, CFD software skill and most important how CFD results are important for making design decisions.

COURSE CONTENT

The programme covers the following important aspects of CFD concepts

- CFD modelling of multiphase flows
- Geometric Creation
- Fluent meshing & Component Systems
- Multi-phase fluidization
- Turbulent models
- Applications of CFD
- Thermal Mixing
- External flow in airfoil

REGISTRATION

- Total number of participants is limited only.
- Participants will be selected on first comes first serve basis only.

IMPORTANT DATES:

Last date for Registration: 05.12.2019

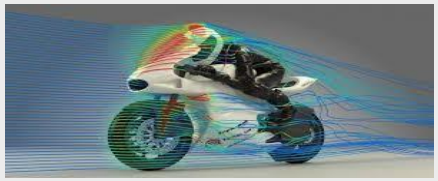
COMMUNICATION

Coordinators
Department of Mechanical Engineering
Mobile: 9965542345, 9597471182

Value Added Course

on

COMPUTATIONAL FLUID DYNAMICS



18.01.2021 - 22.01.2021
25.01.2021 – 30.01.2021
01.02.2021 – 05.02.2021
08.02.2021 – 12.02.2021

DEPARTMENT OF MECHANICAL ENGINEERING

(Approved Research Centre by Anna University, Chennai)

SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution)

15VME02 COMPUTATIONAL FLUID DYNAMICS

OBJECTIVES :

- To impart knowledge to solve complex problems in the field of fluid flow and heat transfer by using high speed computers.

UNIT I INTRODUCTION

Introduction to ANSYS Modeling and simulation software to aerodynamic problems Numerical simulation of Flow over an airfoil. CFD modelling of multiphase flows - Geometric Creation - Fluent meshing & Component Systems.

UNIT II FINITE VOLUME METHOD & TURBULENT MODELS

Finite volume formulation for steady state One, Two and Three -dimensional diffusion problems. One dimensional unsteady heat conduction through Explicit, Crank – Nicolson and fully implicit schemes. Multi-phase fluidization - Turbulent models - Applications of CFD - Thermal Mixing External flow in airfoil

UNIT III NUMERICAL SIMULATION

Numerical simulation of Supersonic flow over a wedge - Flat plate boundary layer - Laminar flow through pipe - Flow past cylinder.

TOTAL : 30 PERIODS

COURSE OUTCOMES:

After successful completion of this course the students will be able to:

1. Make use of the concepts like accuracy, stability, consistency of numerical methods for solving Flow over an airfoil and Fluent meshing.
2. Analyze the fluid flow properties of flat plate, pipe and aero foil using CFD. (Analyze)

SETHU INSTITUTE OF TECHNOLOGY

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Master Institute
Design | Manufacturing | Technology

MASTER CAM RECOGNIZED CAD CAM CNC INSTITUTE

DEPARTMENT OF MECHANICAL ENGINEERING

Program: M.E - CAD / CAM

Organizes a value added course on

Mastercam

DATE : 18-01-2021 TO 22-01-2021

Venue : CAD / CAM LAB

Certifcate for all participants

WHAT'S INSIDE:

- MASTERCAM - MILL 2D
- MASTERCAM - MILL 3D
- MASTERCAM - TURNING
- MASTERCAM - ROUTER
- MASTERCAM - MULTIAXIS
- MASTERCAM - DESIGN
- CNC SETUP AND OPERATE 3 & 4 AXIS CNC MACHINE

PATRONS

Mr . S . MOHAMED JALEEL
Founder and Chairman

Mr . S . M. SEENI MOHAIDEEN
Chief Executive Officer

Mr . S . M . SEENI MOHAMED ALIYAR MARAIKKAYAR
Join Chief Executive Officer

Ms . S . M . NILOFER FATHIMA
Director Administration

Ms . S. M . NAZIA FATHIMA
Director - R & D

Dr . A . SENTHIL KUMAR
Principal

Dr . G .D. SIVAKUMAR
Vice Principal & Dean Mechanical

Convenor
Dr . C. KAILASANATHAN
CAD / CAM Program Head

Co- Ordinator
Mr. J . VAIRAMUTHU
Asst. Prof., M.E - CAD /CAM

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACCREDITED BY NBA

Organizes a Value Added Course on

NETWORK SIMULATOR

PATRONS

Mr.S. Mohamed Jaleel
Founder & Chairman

Mr.S.M.Seeni Mohaideen
Chief Executive Officer

Mr.S.M.Seeni Mohamed Aliar Maraikkayar
Joint Chief Executive Officer

Ms.S.M.Nilofer Fathima
Director- Administration

Dr.S.M.Nazia Fathima
Director- R &D

Dr.A.Senthil Kumar
Principal

Dr.G.D.Sivakumar
Vice principal

Convenor

Dr.N.balaji
HOD-CSE

SETHU INSTITUTE OF TECHNOLOGY
(An Autonomous Institution)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE ON NETWORK SIMULATOR

DURATION: 30 Hours

Course Details :

Module 1: INTRODUCTION

- About NS2 and NAM, Purpose and Installation, Background and architecture, OTcl and C++ interfaces, Trace files and formats, Protocol support for NS2
- Simulation object, Basic Syntax, Node creation, Finish procedure, Running NS2 and NAM, Invoking external commands within NS2

Module 2: Wired and Wireless networks

- Nodes & Agents, Working of NS2 commands, Wired and Wireless scenarios, Routing protocols in wireless scenarios
- Wired networks- Creating links, Sending traffic through NS2 links, Setting link parameters, Routing protocol support, Scenarios
- Wireless networks - Additional parameters, Setting node positions, GOD object and Topography, Protocol support, Scenarios

Module 3: Analyzing traces –

- Back to traces, AWK and Xgraph, Analyzing parameters in each trace entry, Xgraph parameters
- Invoking AWK scripts, Print values to console and files using AWK, Setting values for Xgraph, Invoking Xgraph, Additional Xgraph parameters

Course Outcome:

- After the completion of course, students will get hands on experience on simulation tools .

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACCREDITED BY NBA

Organizes a Value Added Course on

RUBY ON RAILS

PATRONS

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Mr.S.M.Seeni Mohamed Aliar Maraikkayar
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Dr.G.D.Sivakumar
Vice principal

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Dr.N.balaji
HOD-CSE

SETHU INSTITUTE OF TECHNOLOGY
(An Autonomous Institution)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DURATION: 30 HOURS

VALUE ADDED COURSE ON

RUBY ON RAILS

Module 1: RUBY INSTALLATION AND BASICS

- Introduction
- Install RVM(Ruby Version Manager)
- Ruby basics-IRB - Variables
- Ruby Operators ,Control Structures, Iterators ,
- Arrays-Hashes

Module 2 : RUBY OOPS

- Ruby Class
- Inheritance - Ways of Creating Ruby object –
- Ruby Methods
- String Class,File Class,Exceptions

Module 3: RAILS BASICS

- Rails Installation and Ruby Gems-Databases
- RAILS MVC - Model - Views–
- Controller
- Building Hello World Rails Application Step by Step.

Course Outcome:

- After the successful completion of this course, the student will be able to development of web application using Rails framework.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACCREDITED BY NBA

Organizes a Value Added Course on

.NET FRAMEWORK

PATRONS

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Principal

Dr.G.D.Sivakumar
Vice principal

Convenor

Dr.N.balaji
HOD-CSE

SETHU INSTITUTE OF TECHNOLOGY

DEPARTMENT OF COMPUTER SCINECE AND ENGINEERING

DURATION: 30 HOURS

VALUE ADDED COURSE ON

.NET FRAMEWORK

Module 1: OVERVIEW OF .NET

- ✓ Building blocks of .Net platform
- ✓ Type system
- ✓ Language specification
- ✓ Type distinction
- ✓ Runtime deployment
- ✓ .Net aware programming languages
- ✓ Independent nature of .NET

Module 2: SYNTAX & DATA TYPE

- ✓ Language fundamental
- ✓ Array & string

Module 3: OOPS CONCEPTS CLASSES

- ✓ INHERITANCE
- ✓ EXCEPTION HANDLING
- ✓ MULTITHREADING

Module 4 : ADO.NET

- ✓ ADO.NET Architecture
- ✓ ADO.NET
- ✓ Connected Layer:
  Data Provider Model - Data Readers - Data Transaction –
- ✓ Disconnected Layer:
  Dataset - Data Column- Data RowTable Data.

Course Outcomes:

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

- Explain the .NET Environment fundamentals and significant role of .NET in cross platform.
- Apply the ADO.NET control to strap the data transactions with .NET application.

SETHU INSTITUTE OF TECHNOLOGY
(An Autonomous Institution| Accredited with 'A' Grade by NAAC)
PULLOOR, KARIAPATTI – 626 115.

Value added course on cyber security

RESOURCE PERSON
Dr.M.Lordwin Cecil Prabhakar,
Associate Professor,
VelTech Rangarajan Dr Sagunthala R&D Institute of Science and Technology, Chennai

17 MAY TO 22 MAY 2021

DEPARTMENT VISION

To achieve excellence in technical education and scientific research in the field of computer science and engineering to contribute to the society.

DEPARTMENT MISSION

- Transforming students into technocrats in computer technology confirming the industry expectation.
- Imparting holistic learner centric environment.
- Cultivating interpersonal traits, problem solving skills, critical and rationale thinking capabilities for the development of students leading to innovators, leaders and entrepreneurs.
- Establishing collaboration with the industries for mutual benefits
- Promoting Research activities among the students and the faculty to solve problems related to industry and society.
- Offering computer applications life skill to society for better living.

CONVENORS

Dr.N.Balaji, Dean & Head/CSE
Dr.M.Malathi,Asso.Prof. & PG Head/CSE

ABOUT THE INSTITUTION

Sethu Institute of Technology is one of the premier institutions in TamilNadu bloomed in 1995.The college is situtated in the NH 45 B Madurai-Tuticorin National Highway,in a sprawling area of 135 acres in the outskirts of Madurai city. The college is an ISO 9001:2008 Certified Institution and Accredited with 'A' grade by NAAC.Our Founder chairman Thiru.S.Mohamed Jaleel,whose sole aim is to impart Quality Technical Education with the latest state-of -artinfrastructure. Er.S.M.Seeni Mohaideen,Cheif Executive Officer and Er.SM.Seeni Mohamed Aliar Maraikkayar, Joint Chief Executive Officer are young and energetic who are being the driving forces behind the innovative ideas which have fetched numerous credits to the Management.
Our principal and Deans are excelling the force for providing technical excellence and experimentation in the minds of building professionals

ABOUT THE DEPARTMENT

The Computer Science and Engineering programme enables the students to acquaint themselves with the latest developments in the field of computational technologies and also to learn innovative approaches in programming subjects.
The department offers undergraduate and postgraduate degree programmes. Undergraduate graduate programme incepted during 1995, Post graduate programme M.E. Computer Science and Engineering started at 2009. In 2011, the Department has been recognized as a Centre for Research, by Anna University and offers Ph.D. programme in collaboration with Anna University. This department recognizes the immense potential of the students and inculcates in them the habit of innovative thinking and problem solving capability. The department is also a pioneer in developing the positive attitude to instill the self-confidence in our students.

19VMECSE02	Cyber Security	
OBJECTIVES: • Introduce the basic concepts of python. • Introduce and implement the basic concepts of machine learning		
UNIT I	**Introduction**	**10**
Information Security vs Cyber Security - Cyber Security Principles - Cyber Security Threats - Cyber Security Threats Consequences		
UNIT II	**Cyber Security Attacks**	**10**
Advanced persistent Threat – Back Door – Buffer Overflow – Man in the middle Attack – Cross cite Scripting- DOS Attack – SQL Injection		
UNIT III	**Cyber Security Design Principles**	**10**
Economy of Mechanism – Fail Safe Default – Complete Meditation – Open design – Isolation – Encapsulation – modularity – separation of Privilege. TOTAL: 30 Periods		
COURSE OUTCOMES: **After the successful completion of this course, the student will be able to** • Understand the basic concepts of Cyber Security (Understand) • Implement various Cyber security attacks. (Apply) • Design a cyber-security system for real time applications(Create)		

CHIEF PATRON

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Chairman

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Joint Chief Executive Officer

Dr. A. SENTHIL KUMAR

Principal

CONVENOR

Dr. A. MERLINE

Prof & Dean / ECE

Dr.M.Parisa Beham

Hod/ECE

Dr.R.Tamilselvi

PG-Head

CO ORDINATORS

Mrs.R.Devika

Dr.R.Karthick

Mrs.M.Fathu Nisha

ABOUT THE PROGRAMME

The objective of this programme is to enhance the knowledge of students in C Programming. Participation in this programme will be helpful to attain updated knowledge in their programming skills.

COURSE CONTENT

The programme covers the following important aspects of Google Applications

- C Introduction
- Data Types
- Storage Classes
- Pointers& Arrays
- Structures and Union
- Programs

REGISTRATION

- No Registration Fee
- Total number of participants is limited to hundred and fifty members only.
- Participants will be selected on first comes first serve basis only.

IMPORTANT DATES:

Last date for Registration : 01.04.2021
Classes from 5.4.2021 to 9.4.2021

COMMUNICATION

Coordinators
Department of ECE
Mobile:9940389791,7598046081

Value Added Course

on

Programming In C

05th APRIL 2021

DEPARTMENT OF ELECTRONIICS AND COMMUNICATION ENGINEERING

(Approved Research Centre by Anna University, Chennai)

SETHU INSTITUTE OF TECHNOLOGY

15VEC01 PROGRAMMING IN C

UNIT I BASICS OF C PROGRAMMING

Introduction to programming paradigms – Structure of C program – C programming: Data Types — Storage classes – Constants — Enumeration Constants – Keywords — Operators: Precedence and Associativity – Expressions – Input/Output statements, Assignment statements — Decision making statements – Switch statement – Looping statements — Pre-processor directives – Compilation process

UNIT II ARRAYS

Introduction to Arrays: Declaration, Initialization — One dimensional array —– Two dimensional arrays — Example Program: Matrix Operations (Addition, Scaling, Determinant and Transpose) – String operations: length, compare, concatenate, copy — Selection sort, linear and binary search.

UNIT III POINTERS

Introduction to functions: Function prototype, function definition, function call, Recursion — Example Program: Computation of Sine series, Scientific calculator using built-in functions, Binary Search using recursive functions — Pointers — Pointer operators — Pointer arithmetic — Arrays and pointers — Array of pointers — Example

UNIT IV STRUCTURES

Structure – Nested structures — Pointer and Structures — Array of structures — Example Program using structures and pointers — Self-referential structures — Dynamic memory allocation – Singly linked list

COURSE OUTCOMES:

1. Explain the concept of a functional hierarchical code organization
2. Apply the concept of object thinking within the framework of functional model to define Arrays
3. Apply the Basic Programming Knowledge to handle possible errors during program execution.

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Chairman

PATRONS

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Chief Executive Officer

Mr. S. M. SEENI MOHAMED ALIAR MARAIKKAYAR

Joint Chief Executive Officer

Dr. A. SENTHIL KUMAR

Principal

CONVENOR

Dr. A. MERLINE

Prof. & Dean / ECE

Dr.M.Parisa Beham

Hod/ECE

Dr.R.Tamilselvi

PG-Head

CO ORDINATORS

Mrs.R.Devika

Dr.R.Karthick

Mrs.M.Fathu Nisha

ABOUT THE PROGRAMME

The objective of this programme is to enhance the knowledge of students in C++ Programming. Participation in this programme will be helpful to attain updated knowledge in their programming skills.

COURSE CONTENT

The programme covers the following important aspects of Google Applications

- Object oriented design.
- Introduction to OOP in C++
- Classes and Objects.
- Inheritance.
- Polymorphism
- Programs

REGISTRATION

- No Registration Fee
- Total number of participants is limited to hundred and fifty members only.
- Participants will be selected on first comes first serve basis only.

IMPORTANT DATES:

Last date for Registration : 01.04.2021
Classes from 5.4.2021 to 9.4.2021

COMMUNICATION

Coordinators
Department of ECE
Mobile:9940389791,7598046081

Value Added Course

on

Programming In C++

05th APRIL 2021

DEPARTMENT OF ELECTRONIICS AND COMMUNICATION ENGINEERING

(Approved Research Centre by Anna University, Chennai)

SETHU INSTITUTE OF TECHNOLOGY

15VEC02 PROGRAMMING IN C++

UNIT I INTRODUCTION AND FIRST PROGRAM

First C++ Program, How C++ differs from C, Variables Declaration, Function overloading, Optional Parameters, Reference Variables, Operator overloading, Basics of Console Input and Output, Constant Pointers, Dynamic Memory Allocation

UNIT II OOPS CONCEPTS

Overview of OOPs Principles, Introduction to classes & objects, Creation & destruction of objects, Data Members, Member Functions, the Pointer, Constructor &Destructor, Static class member, Friend class and functions, Namespace.

UNIT III INHERITANCE & POLYMORPHISM

Introduction and benefits, Access Specifier, Base and Derived class Constructors, Types of Inheritance, Down casting and up casting, Function overriding, Virtual functions, Destructor overriding, What is Polymorphism, Pure virtual functions, Virtual Base Class- Example Problem

COURSE OUTCOMES:

- Explain the basics in C++ concepts for code reuse
- Apply the Concepts in C++ to implement inheritance and virtual functions with polymorphism.
- Design and implement generic classes with C++ templates.

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Chairman

PATRONS

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Joint Chief Executive Officer

Dr. A. SENTHIL KUMAR

Principal

CONVENOR

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Prof. & Dean / ECE

Dr.M.Parisa Beham

Hod/ECE

Dr.R.Tamilselvi

PG-Head

CO ORDINATORS

Mrs.R.Devika

Dr.R.Karthick

Mrs.M.Fathu Nisha

ABOUT THE PROGRAMME

The objective of this programme is to enhance the knowledge of students in JAVA Programming. Participation in this programme will be helpful to attain updated knowledge in their programming skills.

COURSE CONTENT

The programme covers the following important aspects of Google Applications

- Data types, variables, and arrays.
- Operators and control statements
- Java Environment and OOP concepts.
- Classes and methods.
- String handling
- Programs

REGISTRATION

- No Registration Fee
- Total number of participants is limited to hundred and fifty members only.
- Participants will be selected on first comes first serve basis only.

IMPORTANT DATES:

Last date for Registration : 01.04.2021
Classes from 5.4.2021 to 9.4.2021

COMMUNICATION

Coordinators
Department of ECE
Mobile:9940389791,7598046081

Value Added Course

on

JAVA Programming

05th APRIL 2021

DEPARTMENT OF ELECTRONIICS AND COMMUNICATION ENGINEERING

(Approved Research Centre by Anna University, Chennai)

SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution)

Pulloor, Kariapatti – 626115

Virudhunagar – District, Tamilnadu, INDIA.

01VEC03 JAVA PROGRAMMING

UNIT I OVERVIEW OF JAVA PROGRAMMING

Introduction to java, java buzzword, data types, dynamic initialization, scope and life time, operators, control statements, arrays, type conversion and casting, finals & blank finals.

Classes and Objects: Concepts, methods, constructors, usage of static, access control, this key word, garbage collection, overloading, parameter passing mechanisms, nested classes and inner classes.

Inheritance: Basic concepts, access specifiers, usage of super key word, method overriding, final methods and classes, abstract classes, dynamic method dispatch, Object class.

UNIT II INTERFACES AND PACKAGES

Interfaces: Differences between classes and interfaces, defining an interface, implementing interface, variables in interface and extending interfaces.

Packages: Creating a Package, setting CLASSPATH, Access control protection, importing packages.

Exception Handling: Concepts of Exception handling, types of exceptions, usage of try, catch, throw, throws and finally keywords, Built-in exceptions, creating own exception sub classes.

COURSE OUTCOMES:

1. Apply the knowledge in OOPs to Use the syntax and semantics of java programming language
2. Develop reusable programs using the concepts of inheritance, polymorphism, interfaces and packages.
3. Apply the concepts of Multithreading and Exception handling to develop efficient and error free codes.

ABOUT THE INSTITUTION

Sethu Institute of Technology is one of the premier institutions in TamilNadu bloomed in 1995.The college is situated in the NH 45 B Madurai-Tuticorin National Highway, in a sprawling area of 135 acres in the outskirts of Madurai city. The college is an ISO 9001:2008 Certified institution and currently offers 9 UG and 5 PG Programmes. It is Accredited with 'A' grade by NAAC and Five of the UG Programmes have been accredited by National Board of Accreditation (NBA), New Delhi. Our Founder Chairman Thiru..S.Mohamed Jaleel, whose sole aim is to impart Quality Technical Education with the latest state-of-art infrastructure.

Er.S.M.Seeni Mohaideen, Chief Executive Officer and Er.S.M.SeeniMohamedAliar Maraikkayar, Joint Chief Executive Officer are young and energetic who are being the driving forces behind the innovative ideas which have fetched numerous credits to the Management.

Our Principal and Deans are the excelling force for providing innovative technical excellence and experimentation in the minds of budding professionals.

ABOUT THE DEPARTMENT

The Department of Electrical and Electronics Engineering has been blossoming in this great institution since 1998. The department offers M.E. course in Power Electronics and Drives. The department is accredited by National Board of Accreditation (NBA), New Delhi. Our department is approved as Research Centre by Anna University, Chennai since 2011. The department is flourishing day by day by its achievement and there by bringing laurels to the institution. The department has highly dedicated, experienced, young and energetic professionals as Faculty members including 10 Doctorates. Two funded Research Projects from DRDO and DST are ongoing with the sanctioned amount of Rs. 70 Lakhs. The Department excels both in academic and research to attain the Vision.

DEPARTMENT VISION

To achieve Excellence in Education and Research in the field of Electrical and Electronics Engineering and provide knowledge based contribution for the development of economy and society.

DEPARTMENT MISSION

- Providing comprehensive and value based education in Electrical and Electronics engineering and related fields to meet intellectual, ethical and career challenges.
- Providing state-of- the-art infrastructure and resources to promote teaching-learning and research activities.
- Enriching the skills to enhance employability and entrepreneurship.
- Strengthening the collaboration with academia, industry and research organizations.
- Fostering Research and Development activities leading to innovation and technological growth in the overall ambit of electrical and electronics engineering.
- Offering services to the society through education, science and technology.

PROGRAM SPECFIC OUTCOMES

PSO1: Demonstrate technical competency in the design and analysis of electrical machines.

PSO2: Design and analyze power electronic interfaces for renewable energy systems.

ABOUT THE COURSE

The Electrical Wiring Systems are mostly standardized with several rules, regulations and laws. Electrical Wiring must be installed correctly and safely in accordance with electrical regulations and standards. If the electrical wiring is carried out incorrectly or without confirming to any standard, then it may lead to incidents like short circuits, electric shocks, damage the device / appliance or leads to the malfunctioning of device which further causes for the reduction of device life.

Several factors have to be considered before the actual installation work to be done for residential, commercial or industrial wiring. These factors include type of building construction, type of ceiling, wall and floor construction, wiring methods, installation requirements, etc.

OUTCOME OF THE COURSE

After Completion of the Workshop, the Participants will be able to know the concepts of domestic and industrial wiring.

TOPICS COVERED

- LT Panel wiring
- Concealed Wiring
- Open Wiring
- Casing & Gaping Wiring
- Conduit Wiring

Benificary:

II YEAR EEE Students

HANDS ON TRAINING on DOMESTIC AND INDUSTRIAL WIRING

Organized by

Department of Electrical & Electronics Engineering

Date: 01.02.2021 – 05.02.2021

Convener

Dr. A. SRINIVASAN, HoD/EEE

Co-Convener

Mr. T. Harish Babu
Asst.Prof/EEE

EMINENT RESOURCE PERSON

Mr. Venkateeswaran, B.E.,
Cluster Engineer
Principle ACS Audits, Engg. & Services, Chennai

SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution)

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Pulloor 626 115, Kariapatti Taluk, Virudhunagar District, Tamil Nadu.

website : www.sethu.ac.in

SETHU INSTITUTE OF TECHNOLOGY
(An Autonomous Institution | Accredited with 'A' Grade by NAAC)
PULLOOR, KARIAPATTI – 626 115

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VALUE ADDED COURSE

on

DOMESTIC AND INDUSTRIAL WIRING

SYLLABUS

Duration: 30 Hrs.

1. Demonstration & Practice on connecting common electrical accessories in circuits and testing them in series board. (5 Hrs.)
2. Demonstration on Testing & replacement of different types of fuses. (5 Hrs.)
3. Identification of different wiring materials and their specifications. (3 Hrs.)
4. Removing of insulation from assorted wires and cables. (5 Hrs.)
5. Demonstration and practice crimping thimbles/lugs of various sizes. (5 Hrs.)
6. Jointing practice with single and multi-stranded conductors of different wires and cables (7 Hrs.)

COURSE OUTCOMES

At the end of this course, students can able to

- Demonstrate simple single phase and three phase circuit.
- Apply the practical knowledge in maintaining hand tools & usage of various Measuring instruments.
- Test Electrical wiring as per drawing.
- Identify faults, do preventive maintenance and troubleshooting electrical equipments.

ABOUT THE INSTITUTION

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DEPARTMENT VISION

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DEPARTMENT MISSION

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- Enriching the skills to enhance employability and entrepreneurship.
- Strengthening the collaboration with academia, industry and research organizations.
- Fostering Research and Development activities leading to innovation and technological growth in the overall ambit of electrical and electronics engineering.
- Offering services to the society through education, science and technology.

PROGRAM SPECFIC OUTCOMES

PSO1: Demonstrate technical competency in the design and analysis of electrical machines.

PSO2: Design and analyze power electronic interfaces for renewable energy systems.

ABOUT THE COURSE

The exciting and challenging world of Electronics has influenced our lives to the deepest levels. All-pervasive Arduino provide us with appliances that make our lives comfortable, safe and secure. Be it at home, office, factory, school or travel, Sensor systems are found all over watching us and helping humans and animals alike, conserving and protecting nature. Training Series on Arduino Programming Systems is designed for students at the doorstep of an exciting career in industries in core Electronics.

This is a very broad and very general definition. Embedded systems programming, therefore, consists of building the software control system of a computer-based product. Microcontrollers have a CPU, RAM, ROM, and, typically, several peripheral hardware modules which are built in and are under software control.

The process or program also must not need very high speed operation – it should not be timing-critical. Enhanced control, stability, memory management, and speed can be gained by programming in assembly languages. The programming at the low-level will interact with the hardware in much finer detail than in the medium-level or the high-level systems.

OUTCOME OF THE COURSE

After Completion of the Workshop, the Participants will be able to test, develop & service the products.

TOPICS COVERED

- Introduction to Arduino
- Programming for Arduino
- Real-Time Scheduling
- Sensors Interface
- Performance Analysis

Benificary:

IV YEAR EEE Students

HANDS ON TRAINING on ARDUINO

Organized by

Department of Electrical & Electronics Engineering

Date: 10.12.2020 – 15.12.2020

Convener

Dr. A. SRINIVASAN, HoD/EEE

Co-Convener

Dr. S.VIJAYARAJAN, Asso.Prof/EEE

EMINENT RESOURCE PERSON

Mr. VimalRaj,B.E
Premier Evolvics Pvt.Ltd, Coimbatore

SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution)

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Pulloor 626 115, Kariapatti Taluk, Virudhunagar District, Tamil Nadu.

website : www.sethu.ac.in

SETHU INSTITUTE OF TECHNOLOGY
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PULLOOR, KARIAPATTI – 626 115

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VALUE ADDED COURSE

on

Hands on Training on Arduino

SYLLABUS

Duration: 30 Hrs.

1. Introduction to Embedded Systems (4 Hrs.)

Anatomy of Embedded Systems – Open Source platform – Electronic Components – Sensors – Computational Devices.

2. Introduction to Programming Languages (6 Hrs.)

Various programming Languages – Selection of programming Language - Need of Flow Diagram – How to write First "LED BLINKING" Code in Embedded C – Debugging of Error Program.

3. Practical Exercises (20 Hrs.)

- LED Blinking
- Running LEDs
- Sand Glass Filling of LEDs
- Decoration LEDs/LED Patterns etc.
- Sensor Interfacing
- DC Motor Driving
- Black Line Follower using Two IR-Sensors
- White Line Follower using two IR-Sensors
- DC Motor Driving using 4Bit Keypad
- Seven Segment Display
- Stepper Motor

COURSE OUTCOME

At the end of this course, students can able to

- Create their own Project for any application by using Arduino to meet the industry and societal needs.

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DEPARTMENT MISSION

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- Enriching the skills to enhance employability and entrepreneurship.
- Strengthening the collaboration with academia, industry and research organizations.
- Fostering Research and Development activities leading to innovation and technological growth in the overall ambit of electrical and electronics engineering.
- Offering services to the society through education, science and technology.

PROGRAM SPECFIC OUTCOMES

PSO1: Demonstrate technical competency in the design and analysis of electrical machines.

PSO2: Design and analyze power electronic interfaces for renewable energy systems.

ABOUT THE COURSE

Supervisory control and data acquisition (**SCADA**) is a control system architecture comprising computers, networked data communications and graphical user interfaces for high-level supervision of machines and processes. It also covers sensors and other devices, such as programmable logic controllers, which interface with process plant or machinery. The operator interfaces which enable monitoring and the issuing of process commands, like controller set point changes, are handled through the SCADA computer system. The subordinated operations, e.g. the real-time control logic or controller calculations, are performed by networked modules connected to the field sensors and actuators.

The SCADA concept was developed to be a universal means of remote-access to a variety of local control modules, which could be from different manufacturers and allowing access through standard automation protocols. In practice, large SCADA systems have grown to become very similar to distributed control systems in function, while using multiple means of interfacing with the plant. They can control large-scale processes that can include multiple sites, and work over large distances as well as small distance. It is one of the most commonly-used types of industrial control systems, in spite of concerns about SCADA systems being vulnerable to cyberwarfare/cyberterrorism attacks.

OUTCOME OF THE COURSE

After Completion of the Workshop, the Participants will be able to know the PLC programming and SCADA Concepts.

TOPICS COVERED

- Ladder Diagram
- PLC/RTU programming
- SCADA Components
- PLC Commercial Integration
- Communication infrastructure and methods

Benificary: III YEAR EEE Students

HANDS ON TRAINING ON PLC AND SCADA

Organized by

Department of Electrical & Electronics Engineering

Date: 09.02.2021 – 13.02.2021

Convener

Dr. A. SRINIVASAN, HoD/EEE

Co-Convener

Mr. V. Muthuvel
Asst.Prof/EEE

EMINENT RESOURCE PERSON

Mr. M. Kumaran
Managing Director
Uniq Control and Automation Pvt. Ltd., Madurai

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PULLOOR, KARIAPATTI – 626 115

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VALUE ADDED COURSE

on

Hands on Training on PLC and SCADA

SYLLABUS

Duration: 30 Hrs.

1. Design and implement logic gates and bit level logic ladder diagram program using PLC. (3Hrs.)
2. Design and develop Parking Lot automatic Vehicle counting with the help of Counter Ladder Diagram program using PLC. (4Hrs.)
3. Design and implement arithmetic and logic instruction ladder diagram program using PLC. (3Hrs.)
4. Design and implement ladder logic for bottle filling system using PLC. (4Hrs.)
5. Design and implement ladder logic for traffic signal control using PLC. (4Hrs.)
6. Design and implement ladder logic for mixing, heating and filling process using PLC. (4 Hrs.)
7. Design and implement ladder logic program for stepper motor speed control system using PLC. (4Hrs.)
8. Design and implement ladder logic program for water level control system using PLC. (4Hrs.)

COURSE OUTCOMES

At the end of this course, students can able to

- Build ladder logic diagram for simple applications.
- Simulate and Implement the ladder logic diagram for real time applications using Allen Bradly.

ABOUT THE INSTITUTION

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- Strengthening the collaboration with academia, industry and research organizations.
- Fostering Research and Development activities leading to innovation and technological growth in the overall ambit of electrical and electronics engineering.
- Offering services to the society through education, science and technology.

ABOUT THE COURSE

The exciting and challenging world of Electronics has influenced our lives to the deepest levels. In Embedded Systems courses, students are introduced to the techniques and practical knowledge about testing, designing, integrating and implementing the software used for the advanced embedded systems.

Embedded system has expanded its usage in various developing domains like Military, Communication, Industrial, Automobiles, Medicine, etc. The growing demand of Embedded systems has brought many Embedded systems courses to learn this concept in academics such as Embedded C Course, Diploma in Embedded Systems, ME Embedded Systems, etc..

Embedded systems programming, therefore, consists of building the software control system of a computer-based product. The future of embedded systems lies in the advancement of technologies that enable faster communications, heavy data storage capacities and highly interwoven connections among the devices.

OUTCOME OF THE COURSE

After completion of Embedded systems courses, candidates can get employability for work profiles such as Electronic System Engineer, Design and Control System Engineer, Product Architect, CAD Engineer, etc.

TOPICS COVERED

- Introduction to Embedded Computing
- Design Process
- I/O Devices
- Component Interfacing
- Designing with Processors & Design Examples

Beneficiary:

I YEAR M.E., Power Electronics & Drives Students

VALUE ADDED COURSE
on
EMBEDDED SYSTEMS

Estd : 1995

Organized by

Department of Electrical & Electronics Engineering

M.E.,

Power Electronics & Drives

Date: 08.02.2021 – 11.02.2021

Convener

Dr.B.Meenakshi Sundaram,
Prof & PG Head/PED

Co-Convener

Mrs.V.Vaishnavi
AP/EEE

EMINENT RESOURCE PERSON

Mr. Jayabalan,M.E
C Infotech Pvt.Ltd,
Madurai

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19VPE04 EMBEDDED SYSTEM

Unit-I Introduction to Embedded Systems:

Definition of Embedded System, Embedded Systems Vs General Computing Systems, History of Embedded Systems, Classification, Major Application Areas, Purpose of Embedded Systems, Characteristics and Quality Attributes of Embedded Systems.

UNIT-II Embedded Firmware:

Reset Circuit, Brown-out Protection Circuit, Oscillator Unit, Real Time Clock, Watchdog Timer, Embedded Firmware Design Approaches and Development Languages.

UNIT- III T**ask Communication**:

Shared Memory, Message Passing, Remote Procedure Call and Sockets, Task Synchronization: Task Communication Synchronization Issues, Task Synchronization Techniques, Device Drivers, How to Choose an RTOS.

Total: 30 Periods

COURSE OUTCOMES:

On completion of this course, successful participants will be able to:

- Perform effectively as entry level Embedded Systems professionals.
- Develop and maintain applications written using embedded programming.
- Independently design and develop a hardware platform encompassing a microcontroller and peripherals.

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ABOUT THE DEPARTMENT

The Department of Information Technology was established in the year 1999 and is the proud holder of the 'Best Department Award' in 2003.The Department with it's global presence and new technology. The department offers a 4-years B.Tech programme in Information technology with the inclusion of a well-designed curriculum and Industry offered courses that develop IT professionals. The department in endowed with highly efficient faculties and state of-the-art laboratories. It undertakes consultancy and other forms of collaboration with various organizations. The department has received fund for the modernization of laboratory from AICTE.

DEPARTMENT VISION

To achieve excellence in producing competent IT Professionals to serve the society through technology and research.

DEPARTMENT MISSION

- Producing competent professionals ininformation and communication technologies.
- Educating the students with the state of art computing environment and pedagogical innovations
- Establishing collaborationwith industries and R & D organizations
- Promoting research in information and communication technology to improve the quality of human life
- Offering beneficial service to the society by inculcating knowledge and providing IT solutions

PROGRAM SPECFIC OUTCOMES

- Design software solutions using programming skills and computing technologies
- Design and implement data communication system using various IT components.

ABOUT THE COURSE

CorelDRAW is a vector graphics editor developed and marketed by Corel Corporation. It is also the name of the Corel graphics suite, which includes the bitmap-image editor Corel Photo-Paint as well as other graphics-related programs (see below). The latest version is marketed as CorelDraw Graphics Suite 2021 (equivalent to version 23), and was released in March, 2021. CorelDraw is designed to edit two-dimensional images such as logos and posters and it is available for Windows and macOS.

OUTCOME OF THE COURSE

After Completion of the Workshop, the Participants will be able to test, develop & service the products.

TOPICS COVERED

Introduction to corelDRAW
Learn vector graphic design
Create own Illustraions
Create a brochure,banner & etc.

Benificary:

IV YEAR IT Students

HANDS ON TRAINING on CorelDRAW

Organized by

Department of INFORMATION TECHNOLOGY

Date : 5.10.20 to 9.10.20

Convener

Dr.S.Sivaranjani HOD/IT

Co convenor

Mrs.K.Krishnaveni Asst.Prof/IT

EMINENT RESOURCE PERSON

Mr..Sivakumar
Designer,
Balaji printers,
Madurai

SETHU INSTITUTE OF TECHNOLOGY
An Autonomous Institution
Pulloor, Kariapatti –Taulk. Virudhunagar Dist-626115.
Department of Information Technology
Accredited By NBA

15VIT07 - COREL DRAW (30 HOURS)

Academic year- 2020 -2021

Module 1: Introduction to CorelDRAW

Installing CorelDRAW Graphics Suite 2019 -Basics of CorelDRAW -Vector Graphics and Bitmaps -Starting and Opening Drawings -Previewing Drawings - Viewing Modes - Saving and Closing Drawings - CorelDRAW Workspace - Creative Tools and Content - Touchscreen and Wheel Devices

Module 2: Lines, Shapes, and Outlines

Lines, Outlines, and Brushstrokes - Shapes and Shape Objects - Symmetrical Drawing

Module 3: Working with Objects, Symbols, and Layers

Introduction to Objects - Linking and Embedding Objects - Layers and Symbols

Managing and Tracking Projects

Module 4: Colour, Fills, and Transparencies

Colour - Colour Models and Depth - Choosing Colours - Creating and Editing Colour Palettes - Uniform Fills and Fountain Fills - Vector and Bitmap Pattern Fills - Texture, PostScript, and Mesh Fills - Object Transparency - Managing Colours

Module 5: Exploring Special Effects

Lenses - Adding 3D Effects –Mosaics

Module 6: Working with Text

Adding and Manipulating Text - Formatting Text - Managing Fonts - Writing Tools

Module 7: Templates and Styles

Templates - Using and Finding Templates - Managing Templates - Creating and Editing Templates - Introducing Styles and Style Sets - Creating, Applying, and Editing Styles and Style Sets - Managing Default Object Properties -Importing and Exporting Style Sheets - Colour Styles - Creating and Applying Colour Styles - Editing and Viewing Colour Styles - Exporting and Importing Colour Styles

Module 8: Pages and Layout

Pages and Layout Tools - Page Layout and Background - Adding and Deleting Pages – Rulers - Document Grid and Pixel Grid –Tables -Adding Tables - Selecting, Moving, and Navigating Table Components - Inserting and Deleting Table Rows and Columns -Formatting Tables and Cells -Converting Tables to Text

Module 9: Introduction to Bitmaps

Working with Bitmaps - Converting Vector Graphics to Bitmaps - Importing and Cropping Bitmaps - Bitmap Dimensions and Resolution - Straightening Bitmaps - Image Adjustment Lab - Adjusting Colour and Tone - Tone Curve Filter - Special Effects Categories - Bitmap Colour Modes - Introducing Trace -RAW Camera Files

Module 10: Web Graphics

File Formats - Importing and Exporting Files - Exporting to PDF -Supported File Formats - Customising and Automating - Setting Basic Preferences - Customising CorelDRAW- Using Macros and Scripts for Automating

The Course Outcomes are

- Understand the basics of CorelDraw
- Apply vector graphic design
- Create own illustrations.
- Create brochure ,banner .

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PROGRAM SPECFIC OUTCOMES

- Design software solutions using programming skills and computing technologies
- Design and implement data communication system using various IT components.

ABOUT THE COURSE

R is a programming language and free software environment for statistical computing and graphics. It is supported by the R Core Team and the R Foundation for Statistical Computing. It is widely used among statisticians and data miners for developing statistical software and data analysis. Polls, data mining surveys, and studies of scholarly literature databases show that R is highly popular; since August 2021, R ranks 14th in the TIOBE index, a measure of programming language popularity.
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OUTCOME OF THE COURSE

After Completion of the Workshop, the Participants will be able to test, develop & service the products.

TOPICS COVERED

Introduction to R Programming
Basic syntax
Structure of a function
Modeling and plotting

Benificary:

IIII YEAR IT Students

HANDS ON TRAINING on R PROGRAMMING

Organized by

Department of INFORMATION TECHNOLOGY

Date : 5.10.20 to 9.10.20

Convener

Dr.S.Sivaranjani HOD/IT

Co convenor

P.Pabitha Muthu Asst.Prof/IT

EMINENT RESOURCE PERSON

Mr.S.Manikandan,
Team leader,
HCL madurai

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An Autonomous Institution
Pulloor, Kariapatti –Taulk. Virudhunagar Dist-626115.
Department of Information Technology
Accredited By NBA

19VIT01 - R Programming (30 HOURS)

Academic year- 2020 -2021

Module: 1 R Introduction

Overview of R Programming - Downloading and installing - Help of Function - Viewing documentation - General issues in R - Package Management

Module: 2 Data Inputting in R

Data Types – Subsetting - Writing data - Reading from csv file - Creating a vector and vector operation - Initializing data frame - Control structure - Re-directing R Output

Module: 3 Data Visualization

Creating bar chart and dot plot - Creating histogram and box plot - Plotting with base graphics - Plotting and coloring in R

Module: 4 Basic Statistics

Computing Basic Statistics - Comparing means of two samples - Testing a proportion - Data Munging Basics

Module: 5 Functions and Programming in R

Flow control: For loop - If condition - Debugging tools

Module: 6 Data manipulation in R

List Management - Data Transformation - Merging Data Frames - Outlier Detection - Combining multiple vectors

Module: 7 R and Database

Performing queries - RODBC and DBI Package - Advanced Data handling - Combined and restructuring data frames

Module: 8 Statistical Modeling in R

Logical Regression - Hierarchical Clustering PCA for Dimensionality Reduction

The course outcomes are

- Understand the basics of R Programming
- Apply the concepts of statistics and Data Visualization using R
- Compare different data models using R
- Create and execute data modeling using R

RESOURCE PERSON

ER.R.UDHYASANKAR.M.E
SOFTWARE EXPERT
BTR CONSTRUCTION
ERODE

CONVENOR

Dr.B.Jeyaprabha
Professor & Head

CO CONVENOR

Mr.R.Logaraja
Assistant Professor

Dr.A.SenthilKumar
Principal

PATRONS

Mr.S.Mohamed Jaleel
Founder & Chairman, SIT

Mr.S.M.Seeni Mohaideen
Chief Executive Officer

Mr.S.M.Seeni Mohammed Aliar Maraikkayar
Joint Chief Executive Officer

Ms.S.M.Nilofer Fathima
Director-Administration

Ms.S.M.Nazia Fathima
Director R&D

SETHU INSTITUTE OF TECHNOLOGY

DEPARMENT OF CIVIL ENGINEERING

ORGANIZES

VALUE ADDED COURSES ON

"ANALYSIS AND DESIGN OF FRAMED STRUCTURE"

23-11-2020 to 28-11-2020
via
Google meet

In association with

BTR CONSTRUCTION ERODE

SETHU INSTITUTE OF TECHNOLOGY

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PULLOOR - 626 115, KARIAPATTI TALUK. VIRUDHUNAGAR DISTRICT.

DEPARTMENT OF CIVIL ENGINEERING

ORGANIZES

Value Added Course on

Tekla structures

On 9th November 2020 @ 11.00 a.m. at Civil Seminar Hall

Company

Ladder Survey Institute, Chennai

ALL ARE WELCOME

Mr. A. M. Arun Mohan	**Dr.P.Oliver Jayaprakash**	**Dr.B.Jaya Prabha**
Faculty Coordinators	**PG program Head**	**Dean & HoD**

TEKLA – SYLLABUS

Tekla Structures is a building information modeling (BIM) software that is used to model structures that incorporate different kinds of building materials including steel, concrete, timber, and glass. Tekla Structures has such detailed information management available which optimize the workflows with highly constructible design. Topics to be covered in the training were,

- Introduction to TEKLA Structures
- Generating the Model Geometry
- Report Generation and Plotting
- Adding Roof, Foundation, Beam, Column, etc.
- Adding Reinforcement to the Model
- Create General Arrangement Drawings
- TEKLA BIM (Building Information Modelling)
- Modeling and Drawing Functionality
- Applying different type of Connections
- Material Takeoff Reports
- Setting Project Information
- Drawing Properties

Total Hours-30 hours

Course outcomes

- Create and Modelling of structures that incorporate different kinds of building materials including steel, concrete, timber, and glass.(Apply)

SETHU INSTITUTE OF TECHNOLOGY

An Autonomous Institution, Affiliated to Anna University, Chennai
Pulloor, Kariapatti -626 115.

Course code : 19VAG01 **Course :Design of Millet Processing Equipment**

(A value added course offered by the Department of Agriculture Engineering)

Total hours : 30

This course in Design of Millet processing equipment under Agriculture engineering at making the students aware of the practical knowledge about the processing units and to gain the knowledge from professionals

Course Objectives

- **To produce and distribute quality seeds in small millets.**
- **To popularize micro irrigation, organic farming and fertigation in small millets among the farmers.**
- **To popularize mechanization in small millets to mitigate labour scarcity.**
- **To promote value addition in small millets and to doubling the farm income.**

Offered to : Students of Department of Agriculture Engineering

Course outcomes

- **Understand the process of manufacturing different methods of Millet production**
- **Analysis the special packing technique**

Semester of offering : 2020-2021

Course coordinator

Mr. M. Jothibass AP / Agri

SETHU INSTITUTE OF TECHNOLOGY
An Autonomous Institution Affiliated to Anna University, Chennai
Pulloor, Kariapatti -626 115.

DEPARTMENT OF AGRICULTURE ENGINEERING

Design of Millet Processing Equipment

COURSE OBJECTIVES

- To produce and distribute quality seeds in small millets.
- To popularize micro irrigation, organic farming and fertigation in small millets among the farmers.
  To popularize mechanization in small millets to mitigate labour scarcity.
- To promote value addition in small millets and to doubling the farm income.

COURSE CONTENT

Millets production and consumption status in India & recent advances - Millets -ancient Indian super foods - Millets in Indian diet - Millet based product research and innovation - Millet processing -past current status, future scope and challenges - Millets as smart and sustainable foods-Good for you, good for environment, good for farmers - Role of millets in agro, food and nutritional security in India - Millets processing, value addition, machinery ,quality control and safe storage - Millet processing home scale small scale medium scale large scale
- Entrepreneurship opportunities - Business plan and project report development - Entrepreneur sharing their experience - Various govt Scheme to boost processing /startups -capacity development programme, financial support, etc.

TOTAL PERIODS : 30

Course Outcome:

At the end of the course students will be able to

CO1	• *Understand the process of manufacturing different methods of Millet production*	***[Understand]***
CO2	• *Analysis the special packing technique*	***[Analyze]***

SETHU INSTITUTE OF TECHNOLOGY

An Autonomous Institution | Accredited with 'A' Grade by NAAC
Approved by AICTE, New Delhi & Permanently Affiliated to Anna University, Chennai

DEPARTMENT OF BIOMEDICAL ENGINEERING

Organizes a Value Added Course on

15VBM01 Mimics -3D Medical Image Processing Software

Venue: SIGNAL AND IMAGE PROCESSING LAB-BIOMEDICAL ENGINEERING

Date : 22-3-2021 To 25-3-2021

Patrons

Mr. S. MOHAMED JALEEL
Founder and Chairman

Mr. S.M. SEENI MOHAIDEEN
Chief Execution Officer

Mr. S.M. SEENI MOHAMED ALIYAR MARAIKKAYAR
Joint Chief Executive Officer

Ms. S.M. NILOFER FATHIMA
Director Administration

Ms. S.M. NAZIA FATHIMA
Director-R&D

Dr. A. SENTHIL KUMAR
Principal

Dr. G.D. SIVAKUMAR
Vice Principal

Convenor

Dr. R ARANGASAMY
HOD

Certificate for all participants

COORDINATOR

Dr. N. KINS BURK SUNIL , Asst. Prof. (Sr.Gr.) / BME

Mimics -3D Medical Image Processing Software

List of Experiments

1. Introduction to Mimics.
2. Segmentation of Lower Jaw using Single Slice Editing Mask.
3. Calculate TIBIA of Knee using Multiple Slices Editing Mask.
4. Design a 3-Dimensional modal of Femur Bone.
5. Segmentation of Pharynx using Multiple Slice Editing Masks.
6. Segmentation of Sternum in Thorax using Split Mask Technique.
7. Segmentation of Scapula Region of Shoulder using Split Mask Technique.
8. Mirroring Simulation of Pelvis Bone.
9. Study the Printing Procedures of 3-Dimensional Model

SHORT TERM COURSE (ONLINE)

Process Simulation and Design: COLLEGE CONNECT

18th, 19th, 20th, 21st, 22nd March, 2021.

ORGANIZED BY

SAK Engineering Consultancy India Pvt.Ltd.

TOPICS COVERED

Introduction to Simulation Software

- History and Evolution of Simulation Software's.
- Aspen Hysys Interface
- Software Maintenance
- Adding Components
- Fluid Package selection
- Adding Material Stream with Examples

Simulation of Process Equipment

Pump

- Pump Theory
- Pump Hydraulic Using Simulation
- Pump Simulation in Series, Parallel & VFD.
- Pump-System Characteristic Curve Using Simulation.

Heater/Heater Exchanger

- Simulation of Heater & Heat Exchanger
- Utility Calculation

Reactor System

- Selection with Examples
- Types of Reactor and its Simulation.

Distillation Column

- Theory
- Simulation of Flash Separator.
- Theory on Macabe Theil Method.
- Simulation of Distillation Column
- Design of Distillation Column (Manual & Hysys)
- Steady State & Dynamic Simulation of Distillation Column system.
- Column specification and its accessories specification sheet generation

Process Simulation

- Two-Stage Compression System
- Refrigeration Loop

FACULTY

Mr. Ronak Soni
GM , Zeppelin System India Pvt. Ltd.

Mr. Khan Abdul Hafeez
Process Design Engineer,GE India Technology Center

Sethu Institute of Technology, Dept. of Chemical Engineering, Faculty incharges:-

- Conveners :- Mr. M.Arul Jayan AP, Chemical/ Mr.Selvadhamodaran AP, Chemical
  Mr.Dharma Prabhu AP,Chemical /Mr.Datchinamoorthy AP, Chemical

SAK ENGINEERING CONSULTANCY INDIA PVT. LTD.
Last Date of Registrations: 17th March, 2021