

List of Value Added Courses offered during the Academic Year 2019-20

PROGRAMME NAME	VALUE ADDED COURSE
B.E. / Mechanical Engineering	3D Printing
	Computational Fluid Dynamics
M.E. / CAD / CAM	NX Nastran
B.E. / Computer Science and Engineering	Robotic Process Automation
	Ethical Hacking
	Server Installation and Configuration
M.E. / Computer Science and Engineering	Block chain Technology
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	Digital Marketing
	Coreldraw
B.E. / Civil Engineering	Vasthu and building approval drawing
	Google Sketchup
M.E. / Structural Engineering	ETABS Software for Structural Analysis and Design
B.E. / Agriculture Engineering	Design of Millet Processing Equipment
B.E. / Biomedical Engineering	Mimics - 3D Medical Image Processing Software
B.Tech. / Chemical Engineering	Computational fluid dynamics

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

CONVENOR

Dr. G. D. SIVAKUMAR

Vice Principal & HOD / Mechanical

CO ORDINATORS

Dr. K. VINAYAGAR

Dr. G. NAGARAJ

Mr. S. PARAMASAMY

T. GANGAHARAN

ABOUT THE PROGRAMME

This course will help you understand how 3D printing is being applied across a number of domains, including design, manufacturing, and retailing. It will also demonstrate the special capabilities of 3D printing such as customization, self-assembly, and the ability to print complex objects.

COURSE CONTENT

The programme covers the following important topics

- A New Way of Making 3D modeling
- On-Demand Manufacturing
- Development and Education
- From Ideas to Objects

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: 12.12.2019

COMMUNICATION

Coordinators

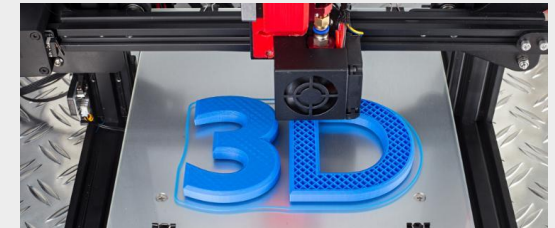
Department of Mechanical Engineering

Mobile: 9384391615, 8072015019

Value Added Course

on

3D PRINTING



16.12.2019 to 20.12.2019

21.12.2019 to 27.12.2019

30.12.2019 to 04.01.2020

06.01.2020 to 10.01.2020



**DEPARTMENT OF
MECHANICAL ENGINEERING**

(Approved Research Centre by Anna University, Chennai)



SETHU INSTITUTE OF TECHNOLOGY

OBJECTIVES :

- To know the fundamental and advanced knowledge of the manufacturing technology and their applications.

UNIT I INTRODUCTION

Introduction of 3D Printing, Evolution of 3D Printing, Additive manufacturing, General Overview – Need - Development of Additive Manufacturing Technology - Three dimensional Printing (3DP): Principle- Basic process-Physics of 3DP- types of printing- process capabilities- material system.

UNIT II 3D PRINTING

A New Way of Making 3D modeling - On-Demand Manufacturing - Development and Education - From Ideas to Objects - Solid Liquid based and powder based 3DP systems- strength and weakness.

General procedure of 3D Printing, 3D CAD file formats, Stereo lithography (stl) files, Various Printing technologies.

UNIT III APPLICATION

3D Printing and Additive Manufacturing Methods - Applications and case studies-Ballistic Particle Manufacturing (BPM)-Introduction to 4D Printing technology. DM in detail, Operating Plasto 200 - Live demonstration, STL principles, Object placement, Object analysis, Slicing and printing, Print settings

TOTAL : 30 PERIODS

COURSE OUTCOMES:

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

1. Demonstrate knowledge of key historical factors that have shaped manufacturing over the centuries Explain current and emerging 3D printing applications in a variety of industries
2. Design and print various given objects.

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:

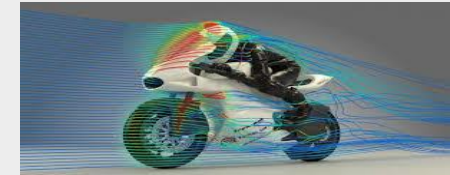
Last date for Registration: 05.12.2019

COMMUNICATION

Coordinators
Department of Mechanical Engineering
Mobile: 9965542345, 9597471182

Value Added Course on

COMPUTATIONAL FLUID DYNAMICS



03.12.2019 to 07.12.2019

09.12.2019 to 13.12.2019

16.12.2019 to 20.12.2019

23.12.2019 to 28.12.2019



DEPARTMENT OF MECHANICAL ENGINEERING

(Approved Research Centre by Anna University, Chennai)



SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution)

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)

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

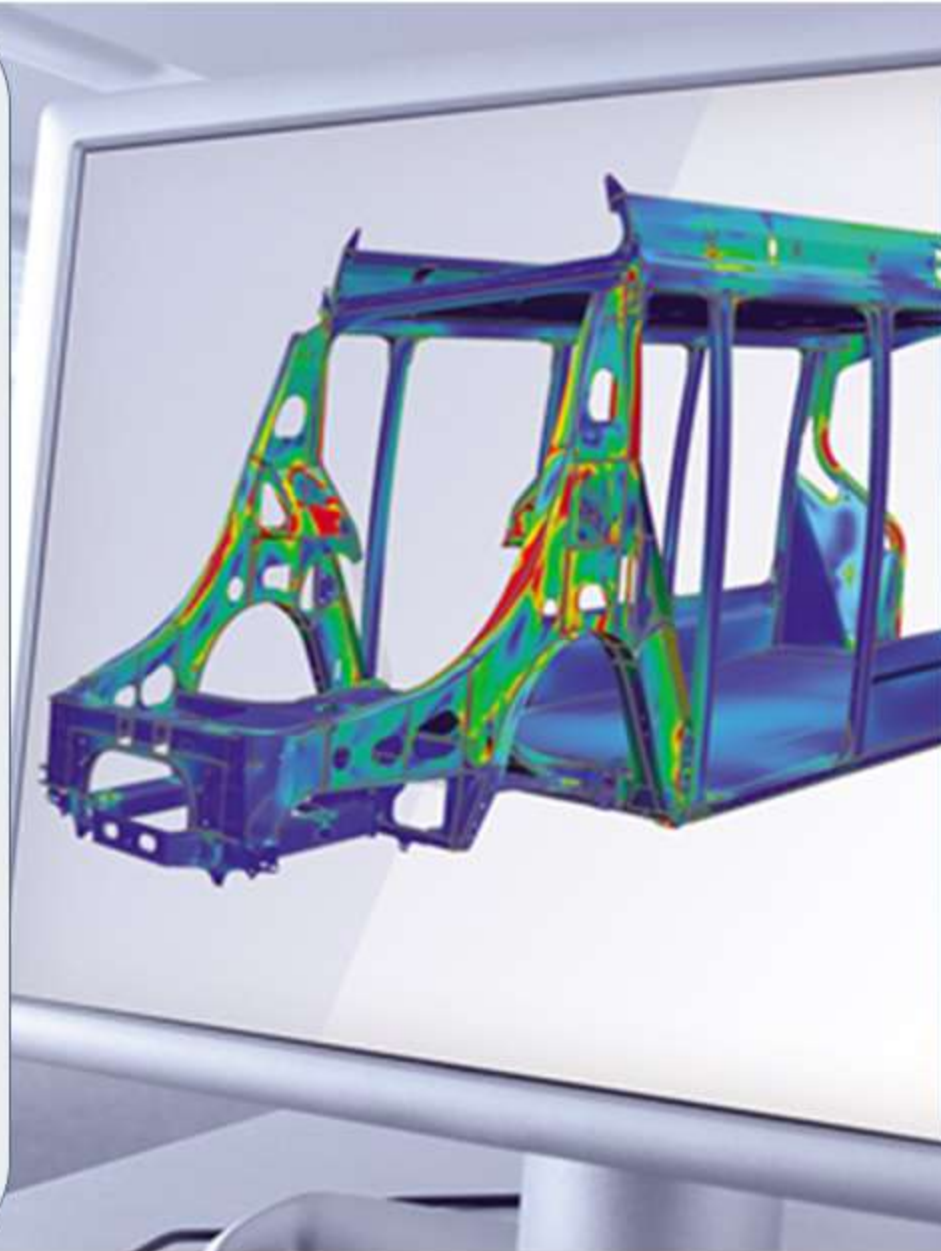
Principal

Convenor

Dr. A. SENTHIL KUMAR

Co- Ordinator

Dr. G.D. Sivakumar



VALUE ADDED COURSE

on

NX
NASTRAN

20.01.2020 to 24.01.2020



**DEPARTMENT OF MECHANICAL
ENGINEERING**

M.E CAD/CAM

(Approved Research Centre by Anna University, Chennai)



SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution)

Pulloor, Kariapatti – 626115

Virudhunagar – District, Tamilnadu, INDIA.



SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution, Affiliated to Anna University, Chennai)

NX Nastron

Total duration: 40 hours (Theory 10 Hours + Lab 30 Hours)

NX Nastron Total Duration : 40 Hours	
Session	Topics
Day 1	Overview of NX Nastran Structure and Syntax for Input Data General Input File Syntax Rules Replicating Bulk Data Entries Inserting External Files with INCLUDE Including Comments in the Input File
Day 2	Overview of Coordinate Systems in NX Nastran Understanding the Basic Coordinate System Defining a Local Coordinate System Understanding the Element and Material Coordinate System Other Special Coordinate System Entries
Day 3	Material Properties Material Properties for Linear Structural Analysis Material Properties for Nonlinear Structural Analysis Material Properties for Thermal Analysis Material Properties for Fluids
Day 4	Overview of Load Sets Defining Static Loads Point Loads Distributed Loads Inertia Loads (Acceleration Loads) Thermal Loads
Day 5	Introduction to Constraints Single-point Constraints Automatically Applying Single-point Constraints Enforced Displacements at Grid Points (SPCD, SPC) Multipoint Constraints Rigid Body Supports

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 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.

Mr.S.M.Seeni Mohaideen, Chief Executive Officer and Mr.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 Computer Science and Engineering was incepted in the year 1995 with the objective of producing high caliber technocrats and eminent software professionals. The department has a team of well qualified, experienced and dedicated faculty members with industrial and research background. The Department of Computer Science and Engineering has been accredited by National Board of Accreditation (NBA), New Delhi. It has well equipped laboratories with latest computers and laptops. The Department has been approve as Research Centre by Anna University, Chennai

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.

PROGRAMME EDUCATIONAL OBJECTIVES

- Graduates will practice as Competent Computer Engineers by exhibiting the state of the art technical skills to cater to the needs of the industries.
- Graduates will lead the team and function in a team of multi-cultural professionals with effective interpersonal skills.
- Graduates will hone their professional expertise engaging in research and sustained learning activities.

TOPICS COVERED

- Robotic Automation Process Studio
- Process Flow
- Inputs and outputs
- Business Objects
- Error Management

Beneficiary

IV YEAR CSE Students

**VALUE ADDED COURSE
ON
Robotic Process
Automation**



**ORGANIZED BY
DEPARTMENT OF COMPUTER
SCIENCE AND ENGINEERING**

DATE :19.08.19-23.08.19

**Convener
Dr.C.CALLINS CHRISTIYANA
HOD-CSE**

SETHU INSTITUTE OF TECHNOLOGY
(An Autonomous Institution | Accredited with
‘A’ Grade)

Pulloor, Kariapatti Taluk,
Virudhunagar District - 626 115.
Tamil Nadu.
website : www.sethu.ac.in

Value added course on

Robotic Process Automation

Course Syllabus

Module: 1 – Robotic Automation Process Studio

- Running a Process
- Basic Skills
- Process Validation
- Decision Stage
- Calculation Stage
- Data Items

Module: 2 – Process Flow

- Decisions
- Circular Paths
- Controlling Play
- Set Next Stage
- Breakpoints
- Collections and Loops
- Layers of Logic
- Pages for Organization

Module: 3 – Inputs and outputs

- Input Parameters
- Stepping and Pages
- Data Item Visibility
- Data Types
- Output Parameters
- Start-up Parameters

- Control Room
- Process Outputs

Module: 4 – Business Objects

- Object Studio
- Business Objects
- BLUE PRISM CONTENT
- Action Stage
- Inputs and Outputs
- The Process Layer

Module: 5 – Error Management

- Exception Handling
- Recover and Resume
- Throwing Exceptions
- Preserving the Current Exception
- Exception Bubbling
- Exception Blocks
- Exception Handling in Practice

Course Outcomes

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

- Understand the RPA and the ability to differentiate it from other types of automation.
- Outline the benefits of RPA and various platforms available on the market.
- Summarize the Risks and Challenges towards the implementation of RPA.

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 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.

Mr.S.M.Seeni Mohaideen, Chief Executive Officer and Mr.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 Computer Science and Engineering was incepted in the year 1995 with the objective of producing high caliber technocrats and eminent software professionals. The department has a team of well qualified, experienced and dedicated faculty members with industrial and research background. The Department of Computer Science and Engineering has been accredited by National Board of Accreditation (NBA), New Delhi. It has well equipped laboratories with latest computers and laptops. The Department has been approve as Research Centre by Anna University, Chennai

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.

PROGRAMME EDUCATIONAL OBJECTIVES

- Graduates will practice as Competent Computer Engineers by exhibiting the state of the art technical skills to cater to the needs of the industries.
- Graduates will lead the team and function in a team of multi-cultural professionals with effective interpersonal skills.
- Graduates will hone their professional expertise engaging in research and sustained learning activities.

TOPICS COVERED

- Introduction to Ethical Hacking
- Footprinting and Reconnaissance
- System Hacking
- Web Application Hacking
- Mobile Hacking

Beneficiary

III YEAR CSE Students

**VALUE ADDED COURSE
ON
Ethical Hacking**



**ORGANIZED BY
DEPARTMENT OF COMPUTER
SCIENCE AND ENGINEERING**

DATE :21.09.19 – 25.09.19

**Convener
Dr.C.CALLINS CHRISTIYANA
HOD-CSE**

SETHU INSTITUTE OF TECHNOLOGY
(An Autonomous Institution | Accredited with
‘A’ Grade)

Pulloor, Kariapatti Taluk,
Virudhunagar District - 626 115.
Tamil Nadu.
website : www.sethu.ac.in

SETHU INSTITUTE OF TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE ON
Ethical Hacking

DURATION: 30 HOURS

Module 1: Introduction to Ethical Hacking

- Fundamental Security Concepts
- Information Security Threats and Attacks
- Introduction to Ethical Hacking
- Introduction to the Cyber Kill Chain
- Introduction to Security Controls
- Introduction to Security Laws and Standards

Module 2: Footprinting and Reconnaissance

- Introduction to Footprinting
- Website Footprinting
- DNS Footprinting
- HTTrack (Demo)
- Shodan (Demo)
- Google Hacking Database (Demo)
- LinkedIn (Demo)
- Job Boards (Demo)
- whois (Demo)

Module 3: System Hacking

- Introduction to Vulnerabilities
- Vulnerability Assessment Phases and Tools
- Types of Password Attacks and Defenses
- Password Cracking with Medusa (Demo)
- Privilege Escalation
- Malware: Trojans
- Malware: Introduction to Viruses
- Malware: Types of Viruses
- Malware: Worms
- Detecting Malware
- Malware Countermeasures

Module 4 : Web Application Hacking

- Web Server Attack Methodology
- Types of Web Server Attacks and Countermeasures
- Web Application Threats
- Web Application Hacking Methodology
- Introduction to SQL Injection Attacks
- Command Injection Attack (Demo)
- Web Attack Countermeasures

Module 5: Mobile Hacking

- OWASP Top 10 for Mobile
- Mobile Attacks and Countermeasures

Course Outcomes:

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

- Explain ethical and legal considerations of hacking.
- Examine the tools for conducting ethical hacking.

ABOUT THE DEPARTMENT

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 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.

Mr.S.M.Seeni Mohaideen, Chief Executive Officer and Mr.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 Computer Science and Engineering was incepted in the year 1995 with the objective of producing high caliber technocrats and eminent software professionals. The department has a team of well qualified, experienced and dedicated faculty members with industrial and research background. The Department of Computer Science and Engineering has been accredited by National Board of Accreditation (NBA), New Delhi. It has well equipped laboratories with latest computers and laptops. The Department has been approve as Research Centre by Anna University, Chennai

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.

PROGRAMME EDUCATIONAL OBJECTIVES

- Graduates will practice as Competent Computer Engineers by exhibiting the state of the art technical skills to cater to the needs of the industries.
- Graduates will lead the team and function in a team of multi-cultural professionals with effective interpersonal skills.
- Graduates will hone their professional expertise engaging in research and sustained learning activities.

TOPICS COVERED

- Fundamentals of server installation and configuration techniques

Beneficiary

II YEAR CSE Students

**VALUE ADDED COURSE
ON
Server Installation and
Configuration**



**ORGANIZED BY
DEPARTMENT OF COMPUTER
SCIENCE AND ENGINEERING**

DATE :23.12.19-28.12.19

**Convener
Dr.C.CALLINS CHRISTIYANA
HOD-CSE**

SETHU INSTITUTE OF TECHNOLOGY
(An Autonomous Institution | Accredited with
‘A’ Grade)

Pulloor, Kariapatti Taluk,
Virudhunagar District - 626 115.
Tamil Nadu.
website : www.sethu.ac.in



SETHU INSTITUTE OF TECHNOLOGY
(An Autonomous Institution)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DURATION: 30 HOURS

VALUE ADDED COURSE ON

Server Installation and Configuration

Module 1:

- ✓ Network Architectures and Active Director
- ✓ Server Installation and Client Connectivity
- ✓ Install and Configure Windows server as a file and print Server.
- ✓ Server Management and Monitoring

Module 2 :

- ✓ Web Server Installation, Configuration and Management.
- ✓ Install web server,
- ✓ Host multiple websites and secure access to the websites.

Module 3:

- ✓ FTP, Telnet and SMTP Server Installation,
- ✓ Configuration and Management Install FTP,
- ✓ Telnet and SMTP servers.

Module 4:

- ✓ Media Server Installation
- ✓ Configuration and Management Install media server.

Module 5 :

- ✓ Active Directory
- ✓ DNS Server and DHCP Server Installation

- ✓ Configuration and Management Install,
- ✓ DNS Server and DHCP Server.
- ✓ Server Virtualization
- ✓ Remote Desktop Services

Course Outcome:

- After the successful completion of this course, the student will be able to Comprehend the purpose and functions of client-server network

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

VALUE ADDED COURSE ON BLOCK CHAIN TECHNOLOGY



Resource Person:

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

10 th June 2019 to 19 June 2019

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 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 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-art infrastructure. Er.S.M.Seeni Mohaideen, Chief Executive Officer and Er.S.M. Seeni Mohamed Allar Marakkayar, 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 inception 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.

19VMECSE01	BLOCKCHAIN TECHNOLOGY	
OBJECTIVES: <ul style="list-style-type: none">To familiar with the main features of the MATLAB integrated design environment and its user interfaces.		
UNIT I	INTRODUCTION TO BLOCKCHAIN	10
Introduction – Elements of a Blockchain - Introduction to cryptographic concepts - Basic Crypto Primitives I – Cryptographic Hash, Basic Crypto Primitives II – Digital Signature , Hash Puzzles - Evolution of the Blockchain Technology.		
UNIT II	INTRODUCTION TO BITCOIN & ETHEREUM	10
Bitcoin Blockchain and scripts, Use cases of Bitcoin Blockchain scripting language in micropayment, escrow - Downside of Bitcoin - mining - Alternative coins – Ethereum and Smart contracts - Smart Contract Hands on Ethereum Smart Contracts (Permissionless Model) - IOTA.		
UNIT III	APPLICATIONS	10
Introduction to Hyperledger - Decentralized Identity Management - Blockchain Interoperability - Permissioned Blockchain and use cases – Hyperledger, Corda - Uses of Blockchain in E-Governance, Land Registration, Medical Information Systems, and others.		
TOTAL: 30 Periods		
COURSE OUTCOMES: After the successful completion of this course, the student will be able to <ul style="list-style-type: none">Explain the basic concepts and technology used for blockchain. (Understand)Apply security features in block chain technologies. (Apply)Use smart contract in real world applications.(Apply)		

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

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 come first serve basis only.

IMPORTANT DATES:

Last date for Registration : 15.12.2019
Classes from 16.12.2019 to 20.12.2019

COMMUNICATION

Coordinators
Department of ECE
Mobile: 9940389791, 7598046081

Value Added Course

on

**Programming
In C**



16th Dec 2019



**DEPARTMENT OF
ELECTRONICS AND
COMMUNICATION
ENGINEERING**

(Approved Research Centre by Anna University, Chennai)



SETHU INSTITUTE OF TECHNOLOGY

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.

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

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 : 15.12.2019
Classes from 16.12.2019 to 20.12.2019

COMMUNICATION

Coordinators
Department of ECE
Mobile:9940389791,7598046081



**SETHU INSTITUTE OF
TECHNOLOGY
(AUTONOMOUS)**

(Approved by AICTE, New Delhi)
(Accredited by NAAC with 'A'
Grade)

Pullor -626115, Virudhunagar Dt.
Value Added Course

On

PROGRAMMING IN C++
16th Dec 2019



Organized by
**DEPARTMENT OF
ELECTRONICS AND
COMMUNICATION
ENGINEERING**

(Approved Research Centre by
Anna University, Chennai)

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.

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

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 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 : 03.05.2020
Classes from 06.05.2020 to 10.5.2020

COMMUNICATION

Coordinators
Department of ECE
Mobile:9940389791,7598046081

Value Added Course

on

JAVA Programming



6th May 2020



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

(Approved Research Centre by Anna University, Chennai)



SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution)

Pulloor, Kariapatti – 626115

Virudhunagar – District, Tamilnadu, INDIA.

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 thereby provide knowledge based contribution for the development of economy and society.

DEPARTMENT MISSION

- ❖ Providing comprehensive and value based engineering education to meet intellectual, ethical and career challenges
- ❖ Promoting collaboration with academia, industry and research organizations
- ❖ Providing state-of-art infrastructure and resources for teaching-learning, research and development activities

- ❖ Enriching the skills to enhance employability and entrepreneurship
- ❖ Offering services and promoting activities to serve the society and nation

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

Core Competence Demonstrate technical competency in electrical engineering and related fields .
Life Long Learning Engage in life-long learning for professional development and research
Ethics and Communication Exhibit effective communication skills, team work and lead their profession with ethics

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

- Demonstrates the proper safety practices and procedures.
- Explains the proper function of tools and testing equipment.
- Rough in and wire residential rooms following the National Electrical Code.
- Installation, trouble-shoot and service Home Technology Integration Equipment

Beneficiary:

II YEAR EEE Students

HANDS ON TRAINING on DOMESTIC AND INDUSTRIAL WIRING



Organized by

Department of Electrical & Electronics Engineering

Date: 15.10.2019 – 19.10.2019

Convener

Dr.A.Srinivasan, HoD/EEE

Co-Convener

Mr.J.Kumaresan,AP(Sr)/EEE

Mr.V. Muthuvel AP(Sr)/EEE

EMINENT RESOURCE PERSON

**Mr.K. Venkateswaran, B.E.,
Cluster Engineer
Principle ACS Audits, Engg. & Services,
Chennai**

SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution)

Accredited with 'A' Grade by NAAC

**Pulloor, Kariapatti Taluk,
Virudhunagar District - 626 115. 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

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.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 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 SPECIFIC 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. Micro controllers 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

Beneficiary:

IV YEAR EEE Students

HANDS ON TRAINING on ARDUINO



Organized by

Department of Electrical &
Electronics Engineering

Date: 21.09.2019 – 25.09.2019

Convener

Dr. A. SRINIVASAN, HoD/EEE

Co-Convener

Mrs. V.S. Chitra, AP/ EEE

Mrs. R.S. Bharathi, AP/ EEE

EMINENT RESOURCE PERSON

Mr. VimalRaj, B.E

Premier Evolvics Pvt.Ltd,
Coimbatore

SETHU INSTITUTE OF
TECHNOLOGY

(An Autonomous Institution)

Accredited with 'A' Grade by NAAC

Pulloor, Kariapatti Taluk,
Virudhunagar District 626 115.
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

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.

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 for the benefit of the society

DEPARTMENT MISSION

- Providing comprehensive and value based engineering education to meet intellectual, ethical and career challenges
- Promoting collaboration with academia, industry and research organizations
- Providing state-of-art infrastructure and resources for teaching-learning, research and development activities
- Enriching the skills to enhance employability and entrepreneurship

- Offering services and promoting activities to serve the society and nation

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

Professional Competency Actively engages themselves in technical activities to achieve practical competency within and across disciplines.

Life-long learning Update their knowledge continuously for life-long learning to enhance their technical and non-technical skills through graduate study or professional improvement opportunities.

Ethics Demonstrate leadership and have necessary skills such as high ethical standards, effective communication and team work

ABOUT THE COURSE

PLC and SCADA are both used to monitor and control equipment in process automation across many different industries, such as telecommunications, water and waste control, energy, oil and gas, and transportation.

A Programmable Logic Controller also known as PLC, is a piece of hardware used to read sensors. SCADA controls the entire system of which the PLC is a part of. PLCs receive information from connected sensors or input devices, process the data, and triggers outputs based on pre-programmed parameters. PLCs are also used to function as real-time systems, since output results must be produced in response to input conditions within a limited time, for continuous proper operations. SCADA systems are managed by an operator using an operator interface which allows the individual to monitor and the issue process commands through the SCADA computer system.

OUTCOME OF THE COURSE

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

TOPICS COVERED

- ✓ PLC Fundamentals
- ✓ PLC Hardware & Architecture
- ✓ Source & sink Concepts
- ✓ Wiring Different field Devices to PLC
- ✓ Introduction to SCADA Software
- ✓ Creating new SCADA project
- ✓ Creating & editing elementary graphic display

Beneficiary:

III YEAR EEE Students

HANDS ON TRAINING ON PLC AND SCADA



Organized by

**Department of Electrical &
Electronics Engineering**

Date: 07.01.2020 – 11.01.2020

Convener

Dr.A.Srinivasan , HoD/EEE

Co-Convener

**Dr.J.Jeyashanthi, ASP/EEE
Ms.C.Sonia AP/EEE**

EMINENT RESOURCE PERSON

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

**SETHU INSTITUTE OF
TECHNOLOGY**

(An Autonomous Institution)

Accredited with 'A' Grade by NAAC
**Pulloor, Kariapatti Taluk,
Virudhunagar District - 626 115.
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

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 Bradley.

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.

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:

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

VALUE ADDED COURSE on EMBEDDED SYSTEMS



Organized by
**Department of Electrical &
Electronics Engineering**
M.E.,
Power Electronics & Drives

Date: 18.12.2020 – 21.12.2020

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**

SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution)

Accredited with 'A' Grade by NAAC
**Pulloor 626 115, Kariapatti Taluk,
Virudhunagar District, Tamil Nadu.**
website : www.sethu.ac.in

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 Task 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.



SETHU INSTITUTE OF TECHNOLOGY

AN AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI
PULLOOR, KARIAPATTI-626 115



DEPARTMENT OF INFORMATION TECHNOLOGY

Organizing a session on

DIGITAL MARKETING

CONVENORS

DR.S.SIVA RANJANI
HOD-IT

8 - 12 AUGUST, 2019
IT - LAB

COORDINATOR
IT - FACULTIES



PATRONS

MR.S.MOHAMED JALEEL

MR.S.M.SEENI MOHAIDEEN

Founder and Chairman

MR.S.M.SEENI MOHAMED ALIYAR MARAIKKAYAR
Chief Executive Officer

Joint Chief Executive Officer

MRS.S.M.NILOFER FATHIMA

Director-Administration

DR.A.SENTHIL KUMAR
Principal

DR.S.M.NAZIA FATHIMA

Director-R&D

DR.G.D.SIVA KUMAR
Vice-Principal



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

15VIT05 – Digital Marketing (35 HOURS)

Academic year- 2019 -2020

Module 1: Introduction to Digital Marketing (3 hr)

Module 2: Successful Digital Marketing Case Studies (4hr)

Module 3: Digital India(3 hr)

Module 4: Graphics Design (Canva) (4hr)

Module 5: YouTube Marketing (6hr)

Module 6 : Introduction to Social Media Marketing (5hr)

Module 7: Effective WebPage Designing(6hr)

Module 8: Search Engine Marketing (Google Ads)(7hr)

Module 9: Next Steps(2hr)

The course outcomes are

- Understand the basics of Digital Marketing
- Apply the concepts of Digital Marketing
- Analyze different marketing strategies
- Create sample Digital marketing campaign



SETHU INSTITUTE OF TECHNOLOGY

AN AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI
PULLOOR, KARIAPATTI-626 115



DEPARTMENT OF INFORMATION TECHNOLOGY

Organizing a session on

COREL DRAW

CONVENORS

DR.S.SIVA RANJANI
HOD - IT

5- 9 JULY, 2019
IT - LAB

COORDINATOR
IT - FACULTIES



PATRONS

MR.S.MOHAMED JALEEL

MR.S.M.SEENI MOHAIDEEN

Founder and Chairman

MR.S.M.SEENI MOHAMED ALIYAR MARAIKKAYAR
Chief Executive Officer

Joint Chief Executive Officer

MRS.S.M.NILOFER FATHIMA

Director-Administration

DR.A.SENTHIL KUMAR
Principal

DR.S.M.NAZIA FATHIMA

Director-R&D

DR.G.D.SIVA KUMAR
Vice-Principal



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

15VIT05 - COREL DRAW (35 HOURS)

Academic year- 2019 -2020

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 .



SETHU INSTITUTE OF TECHNOLOGY

An Autonomous Institution | Accredited 'A' Grade by NAAC
PULLOOR - 626 115, KARIAPATTI TALUK. VIRUDHUNAGAR DISTRICT.



DEPARTMENT OF CIVIL ENGINEERING

ORGANIZES

Value Added Course on

Vastu Shastra & Building Approval Drawing

On 3rd February 2020 @ 11.00 a.m. at Civil Seminar Hall

ALL ARE WELCOME

Mr.A. M. Arun Mohan

Dr.B.Jeyaprabha

Dr.C.Jenifalatha

Faculty Coordinators

PG program Head

Dean & HoD

VASTU SHASTRA SYLLABUS

1. INTRODUCTION OF VASTU SHASTRA AND VASTU PURUSH.
2. TYPES OF DIRECTIONS CARDINAL AND DIAGONAL.
3. PLANETS AND DEVTA MANDAL OF VASTU SHASTRA , BRAHMASTHAN.
4. ASHTALAXMI AND QUALITY OF DIRECTIONS.
5. HOW TO TAKE DIRECTION AND DEGREE WITH COMPASS .AND HOW TO CALCULATE AVERAGE DEGREE.
6. TYPES OF ELEMENTS (PANCH TATVAS).
7. CONSTRUCTION OF ELEMENTS. 8. DESTRUCTION OF ELEMENTS.
8. SHAPES OF PLOTS /FLATS.
9. VEEDISHOOLA AND VEEDISHA.
10. TYPES OF PLOT ACCORDING TO THERE SLOPES.
11. EXTENSION OF PLOTS / FLATS.
12. REDUCTION OF PLOTS / FLATS

Course Outcomes

Students will learn construction of elements according to vastu shastra



SETHU INSTITUTE OF TECHNOLOGY

An Autonomous Institution | Accredited 'A' Grade by NAAC
PULLOOR - 626 115, KARIAPATTI TALUK. VIRUDHUNAGAR DISTRICT.



DEPARTMENT OF CIVIL ENGINEERING

ORGANIZES

Value Added Course on

Google Sketchup

On 28th August 2019 @ 11.00 a.m. at Civil Seminar Hall

Company

Hitech -CADD CENTRE,MADURAI

ALL ARE WELCOME

Mr.A. M. Arun Mohan

Dr.B.Jeyaprabja

Dr.C.Jenifalatha

Faculty Coordinators

PG program Head

HoD

Hitech CADD Centre, Madurai

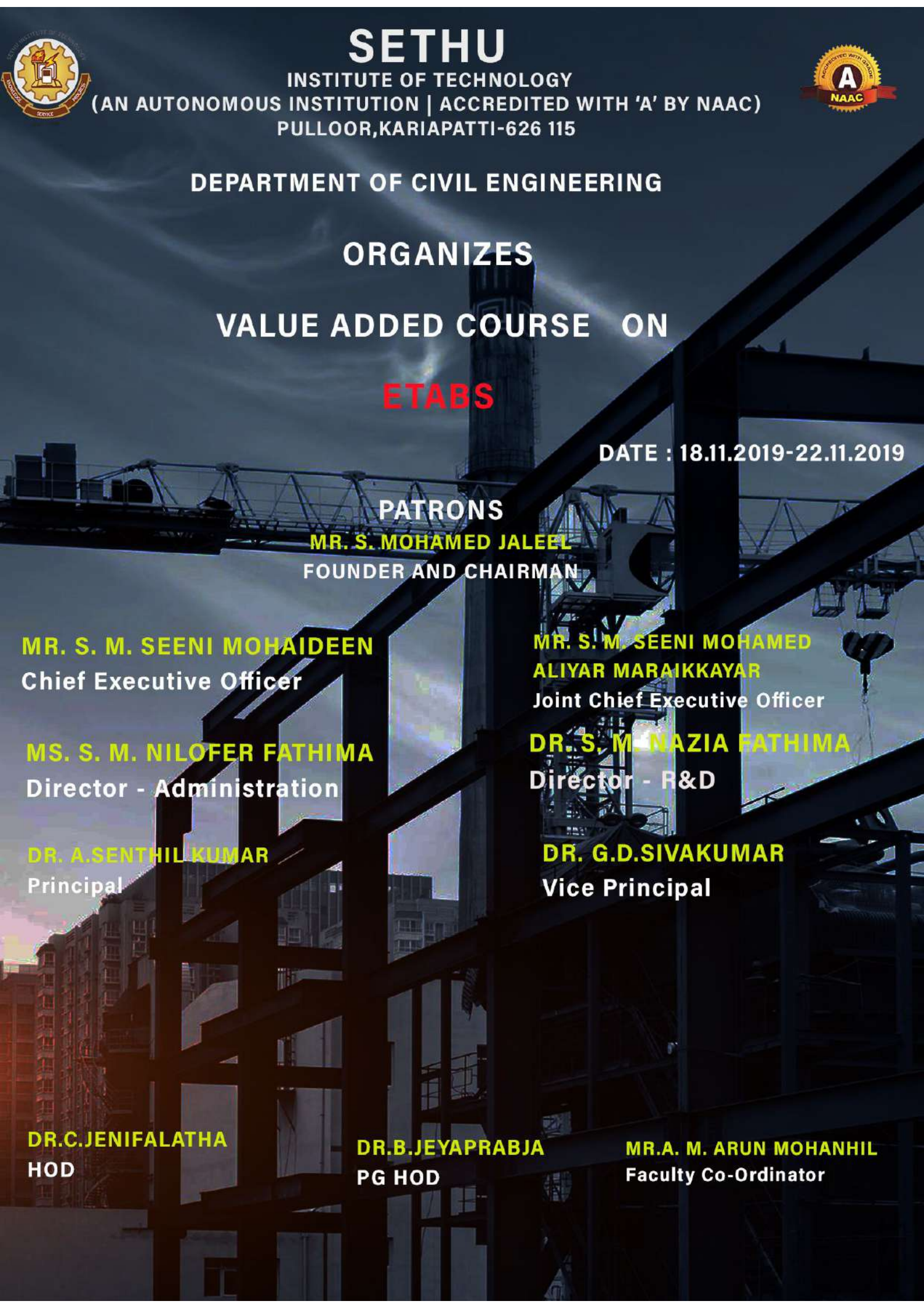
Google sketchup Syllabus

Meeting Sketch Up Selections - Basic selections - Window selections - Modifier keys to add to and subtract from your selection - Tips for accurate and quick selection sets Components - Components vs. groups - Editing components - Component browser Paint Bucket - Applying colors and materials - Editing colors and materials Tips for zooming - Zoom previous, next and zoom extents Position Camera & Look Around - Look around is a stationary viewing tool - Position camera allows you to place your view - Position your view exactly - Changing your field of view Walk - Walking around your model - Collision detection - Modifier keys for more options Sections - Create cut-away views of your model in any direction - Context options for the section plane - Move and rotate the section plane

Total Hours-30 hours

Course outcomes

- Creating & Managing Plan, Section, Elevation, & 3D Views of a structure. Apply)



SETHU

INSTITUTE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION | ACCREDITED WITH 'A' BY NAAC)
PULLOOR, KARIAPATTI-626 115



DEPARTMENT OF CIVIL ENGINEERING

ORGANIZES VALUE ADDED COURSE ON **ETABS**

DATE : 18.11.2019-22.11.2019

PATRONS

MR. S. MOHAMED JALEEL
FOUNDER AND CHAIRMAN

MR. S. M. SEENI MOHAIDEEN
Chief Executive Officer

**MR. S. M. SEENI MOHAMED
ALIYAR 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

DR.C.JENIFALATHA
HOD

DR.B.JEYAPRABJA
PG HOD

MR.A. M. ARUN MOHANIL
Faculty Co-Ordinator

Hitech CADD Centre, Madurai

ETABS- Syllabus

The course covers the advanced concepts of structural analysis and design aspects of structures; modeling; and reporting. You will gain the necessary Training will be given in the following key skills:

- Modeling of building systems
- Property specification
- Loads & Load combinations
- RC structure design
- Steel structure design
- Static linear analysis
- Response spectrum analysis
- Push-over analysis
- Time-History analysis
- Detailing & Documentation

Total Hours-30 hours

Course outcomes

- Modeling and reporting the structures based on advanced concepts of structural analysis and design aspects of structures;(APPLY)
- Exposure to design and analyse steel frames, concrete frames, concrete slabs, concrete shear walls, composite beams, and composite columns based on design codes. (Apply)

Course code : 19UAG VA1 **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 : odd



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

Millet 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

<i>CO1</i>	● <i>Understand the process of manufacturing different methods of Millet production</i>	<i>[Understand]</i>
<i>CO2</i>	● <i>Analysis the special packing technique</i>	<i>[Analyze]</i>



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:05-02-2020 To 08-02-2020

PATRONS

Mr. S. MOHAMED JALEEL

Founder and Chairman

Mr. S.M. SEENI MOHAIDEEN
Chief Execution Officer

Mr. S.M. SEENI MOHAMED ALIYAR
MARAICKAYAR
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
VicePrincipal

CONVENOR

Dr. K. KANIMOZHI

HOD

COORDINATOR

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

Certificate will be provided to all participants

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