# “Aptitude & Verbal – Technical Training”

No of Students Registered – 63

No of Students completed the course -63

☏08818-284577, 284355 Ext: 321;  Fax: 08818-284577  Visit us at: www.srivasaviengg.ac.in

# SRI VASAVI ENGINEERING COLLEGE

(Sponsored by Sri Vasavi Educational Society)
Approved by AICTE, New Delhi and Permanently Affiliated to JNTUK, Kakinada
Pedatadepalli, **TADEPALLIGUDEM – 534 101,** W.G. Dist, (A.P.)

## Department of Civil Engineering

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Skill Oriented Program on

# "Aptitude & Verbal – Technical Training"

# Course content

**Quantitative Aptitude:**

1)Average- Concept on average, different missing numbers in average estimation, shortcuts & their application.

2)Mixture& Allegation – Proportion & mixtures in percentages, populations & liquids, shortcuts & their application.

3)Time & Work- Basic concept, Chain rule, formulae & their application. Pipes & cistern.

4)Time and distance - Basic concept, Different problems & their shortcut tricks. Time & Speed & Tides- concept of speed, time & Distance, relative speed, Upstream &Downstream, formulae & their application

**Logical Reasoning:**

1)Cube- Dice, Miscellaneous Problems

2)Data Sufficiencya)Problems on Blood Relation, ages, Numbers b)Logical Test Based on Data Sufficiency

3) Non Verbal Reasoning a)Image Formation b)Water –Images c)Mirror Image d)Image completion e)Paper Cutting And Folding

**Objective English**

1)Clauses: Definition, Examples, Rules & Application, Types of Sentences (Simple +Complex +Compound) Examples, Rules & Application, Voice- Concept, Types, Examples, Rules & Application, Narration Change- Rules (Direct & Indirect Speech)

2)Vocabulary: Synonyms, Antonyms with examples, One word Substitution, Idioms & Phrases

3)Spotting Errors:

# Course Outcomes:

After Completing the Training Program, The students will be able to:

1. Students will learn advance tricky approaches for solving Quant.

2. It will enhance student's skill to appear in various aptitude test within limited time constrain.

3. This module will enhance students' Analytical skill & will also improve quick decision-making skill.

# “Building Information Modeling & Sketchup”

No of Students Registered – 63

No of Students completed the course -63

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## Department of Civil Engineering

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Skill Oriented Program on

# "Building Information Modeling & Sketchup"

# Course Content

## DAY 1:

**COURSE INTRODUCTION:** Course overview

**BIM INTRODUCTION**: 1) Definition of BIM,

2) History of BIM.

3) BIM on the Architecture And Engineering disciplines

## DAY 2:

**SITE & DATA EXTRACTION**: 1) Site Topography,

2) Building Pads

**BIM BASICS**: 1) Introduction & Modeling,

2) Interface and Navigation.

**3D DRAFTING**: 1) Basic Model Building

2) Structural grids, support

## DAY 3:

**BIM BASICS**: Introduction & Modeling (cont.) Levels, Floors, Roofs, Ceiling, Windows, Doors.

**NAVIGATION**: 1) Ribbon

2) Sketch Mode

3) General Interface

4) Basic dimensions

5) Building sections, plans and elevations

**BIM COLLABORATION**: Collaboration in a BIM environment Integrated project delivery Sharing models

**DAY 4**:

**BIM MODELING**: Systems Structural systems MEP systems

**DAY 5:**

**BIM MODELING**: Circulation (stairs, pathways, etc.) Documentation

**DAY 6:**

**ARCHITECTURE AND ENGINEERING BIM** : Collaboration benefits and limitation

Structure: MEP

# Course Outcomes:

After Completing the Training Program, The students will be able to:

1. Extract and analyze data from site topography.
2. Create basic building models using structural grids and support systems.
3. Design basic building components including levels, floors, roofs, etc.
4. Incorporate the mechanical, electrical, and plumbing systems into the 3D building model.

# “Python Programming - Technical Training”

No of Students Registered – 63

No of Students completed the course -63

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## Department of Civil Engineering

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Skill Oriented Program on

# "Python Programming - Technical Training"

# Course Content

Introduction to Python, Data Types & Operators: Basics of python programming: Features of python – History of Python - Python installation and execution - Data types – Identifiers - variables – type conversionsLiterals, Constants – Numbers – Strings. I/O statements. Operators and expressions, operator precedence – expression evaluation. Control Structures: Decision Control statements: conditional (if), alternative (if-else), chained conditional (if-elif-else); Iteration: while loop, for loop, nested for loop, range function, break, continue and pass statements. Structured Data Types: Lists: list operations, list slices, list methods, cloning lists, list parameters. Tuples: tuple assignment, tuple as return value. Set: Set Creation, Set Operations. Dictionaries: Creation, operations; comprehension, operations on strings. Functions& modules: Introduction - Function Declaration &Definition - Function Call – Variable Scope and Lifetime - The return statement-More on Defining Functions - Lambda Functions or Anonymous Functions - Documentation Strings- Modules – Packages. Files & Exception Handling: Introduction - Types of files - Text files - reading and writing files; Errors and exceptions handling. OOPS concepts Classes, Methods, Constructor, Inheritance, Overriding Methods, Data hiding, TKINTER.

**Course Outcomes:**

After Completing the Training Program, The students will be able to:

1. Illustrate basic concepts of Python Programming.
2. Describe control structures in python.
3. Construct python programs using structured data types.
4. Demonstrate functions and packages.
5. Develop programs on Files, Exception handling and OOPs Concepts.

# “Revit Architecture”

No of Students Registered – 63

No of Students completed the course -63

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## Department of Civil Engineering

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Skill Oriented Program on

# "Revit Architecture"

# Course Content

## Day one

**Introduction to BIM and Autodesk Revit**

- Building Information Modelling
- Exploring the User Interface
- Starting a New Project
- Working with Revit Elements and Families
- Viewing the Model
- Exploring Views – Sections, Elevations & 3D
- Controlling Object Visibility

**Basic Drawing and Modify Tools**

- Using General Drawing Tools
- Editing Elements
- Working with Basic Modify Tools
- Working with Additional Modify tools

**Starting Autodesk Revit Architecture Projects**

- Linking AutoCAD Drawings
- Linking in Autodesk Revit Models
- Setting Up Levels
- Creating Gridlines

## Day Two

**Working with Views**

- Duplicating Views
- Adding Callout Views
- Setting the View Display
- Elevations and Sections

**Modelling Walls**

- Creating Wall Types
- Modelling Walls
- Modifying Walls

**Working with Doors and Windows**

- Inserting Doors and Windows
- Loading Doors and Window Types from Library
- Creating Additional Door and Window Sizes

**Working with Curtain Walls**

- Creating Curtain Wall
- Adding Curtain Grids
- Working with Curtain Wall Panels
- Attaching Mullions to Curtain Grids

## Day Three

**Modelling Floors**

- Creating Floors Types
- Modelling Floors
- Creating Shaft Openings
- Creating Sloped Floors

**Modelling Ceilings**

- Creating Ceiling Types
- Modelling Ceilings
- Adding Ceiling Fixtures
- Creating Ceiling Sofits

**Modelling Roofs**

- Creating Roofs Types
- Modelling Roofs
- Creating Roofs by Footprint
- Reference Planes & Work Planes
- Creating Roofs by Extrusion
- Cleaning Up Wall and Roof Intersections

## Day Four

**Vertical Circulation**

- Creating Component Stairs
- Modifying Component Stairs
- Working with Railings
- Sketching Customer Stairs
- Creating Ramps

**Building Interiors**

- Adding Rooms
- Adding Room Separators
- Room Tags
- Edit Colour Schemes

\

## Day Five

**Annotating Construction Documents**

- Working with Dimensions
- Working with Text
- Adding Details Lines and Symbols
- Creating Legends

**Adding Tags and Schedules**

- Adding Tags
- Working with Schedules

## Day Six

**Creating Details**

- Setting Up Detail Views
- Adding Details Components
- Annotating Details
- Importing Typical DWG Details.

**Creating Construction Documents**

- Setting Up Sheets
- Placing and Modifying View on Sheets
- Printing Sheets
- Exporting sheets to DWG format

# Course Outcomes:

After Completing the Training Program, The students will be able to:

1. Describe the benefits of Building Information Modelling
2. Use the fundamental features of Revit Architecture
3. Use the parametric 3D design tools to design projects
4. Create detailing and drafting views
5. Create construction documentation
6. Use the presentation tools for presenting models

# “Internet of Things (IoT)

# and

# Julia Programming”

Number of students registered-140

Number of students completed the course-140

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Pedatadepalli, **TADEPALLIGUDEM–534 101.**W.G.Dist**. (A.P)**

**Department of Electrical & Electronics Engineering (NBA Accredited)**


**Ref. No: SVEC/EEE/Students/2022-23/213** **Date: 07-06-2023**

## Circular

It is to inform that Skill Advanced Course Phase – II on **"Internet of Things (IoT) and Julia Programming"** (V20SOC2) in association with TeraIoT for **B. Tech (EEE) IV semester Section A&B** will be conducted from **08/06/2023 to 10/06/2023.** It was mandatory for all the IV Semester Students.

**Head of the Department**

Copy to

1. Principal for the kind information
2. IV Semester course handling faculty
3. IV Semester Section (A&B) Students

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**Department of Electrical & Electronics Engineering (NBA Accredited)**


**Ref. No: SVEC/EEE/Students/2022-23/195** **Date: 02-05-2023**

## Circular

It is to inform that Skill Oriented Course on **"Internet of Things (IoT) and Julia Programming"** (V20SOC2) in association with TeraIoT for **B. Tech (EEE) IV semester Section A&B** will be conducted from **04/05/2023 to 06/05/2023 and 11/05/2023 to 13/05/2023.** It was mandatory for all the IV Semester Students.

Training Fee: Rs. 500/-

The class work is suspended for the above said dates.

**Head of the Department**

Copy to

1. Principal for the kind information
2. IV Semester course handling faculty
3. IV Semester Section (A&B) Students

TeraIOT
admin@teraiot.in
+91-9391217368
'TeraIoT' is a startup by NITW Faculty and Student

## One week course on

# Internet of Things (IoT) and Julia Programming

## Course Overview:

In this course you will get comprehensive information about the field of Internet of Things (IoT) with practical hands-on projects. Further in this course you are introduced to Julia, a programming open source language. Julia is a high-level, high-performance dynamic programming language developed specifically for scientific computing.

## Prerequisites:

There are no prerequisites to take this course. Anyone with an interest in the IOT field may take this course.

## Key Learning Outcomes:

By the end of this course, you will be able to:

- Obtain an overview of IoT, including its origin and impact
- Build working model of IoT projects
- Understand Real-world industry-relevant business opportunities with IoT
- Knowledge on Arduino, ESP8266, NodeMCU, Raspberry Pi boards and designing
- Write implantation level programs in Julia

## Certification Details:

- The course contains every day tests
- Required to complete the course with a minimum 80% attendance and 70% score to get the certificate

Address: R.NO 102; Centre for innovation and Incubation; NIT Warangal
TeraIoT firm Registration Number: 469 Year 2022
TeraIOT

# Course Content:

| | |
|---|---|
| **Day 1** | |
| 9:00am to 11:00am (Lecture) | Introduction to IOT; What is IoT ?. Example of IOT; Importance of IOT; Applications of IOT |
| 11:00am to 01:00pm (Lecture) | Basic Components of IoT; Sensors characteristics, faults, Working methodology; Actuators, Relays; Other IoT devices |
| 2:00pm to 5:00pm (Lecture with LAB Session) | Arduino: Introduction, Board Description & Installation; Installation of Arduino IDE; Basic programming; |
| **Day 2** | |
| 9:00am to 11:00am (Lecture) | IoT Hardware and Software; • Analyze existing IoT use cases and applications across industries; IoT use cases and applications within Power and Energy area |
| 11:00am to 01:00pm (Lecture with LAB Session) | Arduino- Tinkercad Simulator; Installation; Examples without coding and with coding; |
| 2:00pm to 5:00pm (Practical LAB Session) | Arduino programming; Experiment using Ultrasonic sensor, Infrared sensor (reading only). Temperature sensor |
| **Day 3** | |
| 9:00am to 11:00am (Lecture with LAB Session) | Julia – Introduction, Installation basics of Julia programming |
| 11:00am to 01:00pm (Lecture with LAB Session) | Julia –Basic Syntax Variables; Comments ; Loops; programming |
| 2:00pm to 5:00pm (Practical LAB Session) | Arduino – hands on Experiment of Soil moisture sensor, Ultrasonic sensor, Infrared sensor; Temperature sensors with feedback control. |

| | |
|---|---|
| **Day 4** | |
| 9:00am to 11:00am (Lecture with LAB Session) | Julia Programming-1; Arrays, tuples, Integer & floating point numbers, rational & complex numbers, basic operators, Basic mathematical functions |
| 11:00am to 01:00pm (Lecture with LAB Session) | ESP8266-Wifi module; Node MCU- Introduction Basic functionality; Board Description Pin diagram; Processor details; |
| 2:00pm to 5:00pm (Practical LAB Session) | ESP 8266, NODE MCU, & installation; Basic programming and practical projects |
| **Day 5** | |
| 9:00am to 11:00am (Lecture) | Security aspects of IoT systems. Protection of the hardware, software, and all the associated interfaces of the system; date protection; Open issues. |
| 11:00am to 01:00pm (Lecture with LAB Session) | Julia Programming-II; strings , functions, FilesI/O, |
| 2:00pm to 5:00pm (Practical LAB Session) | ESP 8266, NODE MCU Projects with Blynk and other software's; Smart gardening, Smart Home control |
| **Day 6** | |
| 9:00am to 11:00am (Lecture with LAB Session) | Julia Programming-III; programming; Working with graphics |
| 11:00am to 01:00pm (Lecture) | IoT Data analytics; Statistics using MATLAB; Anamoly Detection; Z Score Analysis; Project: Energy Saving using Anamoly Detection; |
| 2:00pm to 5:00pm (Lecture with LAB Session) | Introduction to Raspberry. Implementation of IoT with Raspberry Pi |

# “Solar PV plant design concepts"

Number of students registered-140

Number of students completed the course-140

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Pedatadepalli, **TADEPALLIGUDEM–534 101.**W.G.Dist**. (A.P)**

**Department of Electrical & Electronics Engineering (NBA Accredited)**


**Ref. No: SVEC/EEE/Students/2022-23/ 119-B** **Date: 31-12-2022**

## Circular

**"Solar PV plant design concepts" (**V20SOC1) in association with HIEE Empowering Engineers Pvt Ltd., for **B. Tech (EEE) III semester Section (A&B)** will be conducted from **02.01.2023 to 07-01-2023.** It was mandatory for all the III Semester Students.

Training Fee: Rs. 750/-

The class work is suspended for the above said dates.

**Head of the Department**

Copy to

1. Principal for the kind information
2. III Semester course handling faculty
3. III Semester Section (A&B) Students

# SRI VASAVI ENGINEERING COLLEGE (AUTONOMOUS)

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Pedatadepalli, TADEPALLIGUDEM, W.G. Dist, A.P– 534 101

## DEPARTMENT OF

## ELECTRICAL & ELECTRONICS ENGINEERING

## CERTIFICATE

This is to certify that the Skill Oriented Course report entitled **"SOLAR PV PLANT DESIGN USING PVSYST"** is a bonafide Work done by **MANGENA BALAJI SAI KUMAR (22A85A0230)** submitted in partial fulfillment of the requirements for the award of the Degree in Electrical and Electronics Engineering during the academic year 2022-2023. The results of investigation enclosed in this report have been verified and found satisfactory.

(DR. CH. ANIL KUMAR)
**SOC COORDINATOR**

**HEAD OF THEDEPARTMENT**

**EXTERNAL EXAMINER**

# HIEE EMPOWERING ENGINEERS PVT LTD (HIEE)
# AN ISO 9001:2015 Certified Organisation

## Course: Solar plant Design

## One Week Workshop Schedule

- Day 1
    - Morning Session
        - Module-1: Basics of Electrical Engineering
            - Codes & Standards
            - Single phase system and Poly phase system and their importance
            - Power generation, Transmission, Distribution and utilization
    - Afternoon Session
        - Module-1: Overview of Solar system
            - Evolution of solar in India
            - Key market trends in utility scale and rooftop segments
            - Rooftop solar/Utility Solar – where it works and where it doesn't
            - Site analysis and assessment for rooftop and Utility solar readiness
- Day 2
    - Morning Session
        - Module-2: Solar Module Manufacturing Process
            - PV System Components selection
            - Technical overview of DC and AC principles of Solar PV systems
            - Different types of panels, inverters and other balance of system
    - Afternoon Session
        - Module-2: Solar Module Manufacturing Process
            - Components both for off grid, on grid and utility scale
            - Evaluation of PV modules mounting structures
- Day 3
    - Morning Session
        - Module-3: Rooftop PV Plant Design
            - String selection
            - DCDB and ACDB design and selection
    - Afternoon Session
        - Module-3: DC/AC Cable Selection & Sizing
            - SLD reparation
            - Cable sizing
            - PV Power evacuation and net metering

- Day 4
    - Morning Session
        - Module-4: Utility scale Design
            - SCB selection criteria
            - Transformer selection criteria
    - Afternoon Session
            - Evacuation system design
- Day 5
    - Morning Session
        - Module-5: Software  training
            - PV syst
            - Energy Generation Report
    - Afternoon Session
        - Module-6: BOQ and DPR Preparation
            - Preparation of BOQ and DPR for 100KW solar plant
- Day 6
    - Solar PV Plant Site Visit

# SRI VASAVI ENGINEERING COLLEGE (AUTONOMOUS)

Pedatadepalli, Tadepalligudem-534101

Training & Placement Cell

**Date: 23/8/2022**

## Campus Recruitment Training Program

This is to inform all the B.Tech V SEM students management is planning to conduct " New leaf Technology" faculty from **24/08/2022** (Wednesday) to **24/09/2022** (Saturday) to equip you with appropriate skills.

In this they will conduct Aptitude, Verbal & Quantitative training.

**Timings**: 9.30AM - 12.30PM & 1.30PM - 4.30PM

**Venue: Class rooms**

Followed by Daily one Assessment Test at 6PM.

Hence, all of you are directed to avail the opportunity & make yourselves ready for New leaf Technology recruitment without fail.

**Eligibility Criteria:**

- B.Tech V SEM (CIVIL/ECE/ECT/EEE/MECH)

*Rajesh Arepalli*
*Placement Officer*

*(P.N.V.Gopala Krishna)*
*HEAD, PLACEMENTS*

**Copy to:**
**ALL**

# SRI VASAVI ENGINEERING COLLEGE (AUTONOMOUS)

Pedatadepalli, Tadepalligudem-534101

Training & Placement Cell

**Date: 31/12/2022**

## Campus Recruitment Training Program

This is to inform all the B.Tech VI SEM students management is planning to conduct " New leaf Technology" faculty from **02/01/2023** (Monday) to **11/01/2023** (Wednesday) to equip you with appropriate skills.

In this they will conduct Aptitude, Verbal & Quantitative training.

**Timings**: 9.30AM - 12.30PM & 1.30PM - 4.30PM

**Venue: Class rooms**

Followed by Daily one Assessment Test at 6PM.

Hence, all of you are directed to avail the opportunity & make yourselves ready for New leaf Technology recruitment without fail.

**Eligibility Criteria:**

- B.Tech V SEM (CIVIL/ECE/ECT/EEE/MECH)

*Rajesh Arepalli*
*Placement Officer*

*(P.N.V.Gopala Krishna)*
*HEAD, PLACEMENTS*

**Copy to:**
**ALL**

## Aptitude - Technical Training

(Aptitude, Verbal & Quantitative training)

**(Under Campus Recruitment Training Program)**

## SYLLABUS

### Course Outcomes:

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

| CO No. | Course Outcome | Blooms Knowledge Level |
|---|---|---|
| CO1 | Apply fundamental mathematical concepts like number systems, percentages, ratios, and proportions to analyze financial scenarios, make informed investment decisions, and optimize resource allocation. | K3 |
| CO2 | Calculate area, volume, and flow rates for real-world applications**,** specifically optimizing shapes and structures (like cubes and cuboids) and managing efficient fluid transport systems (like pipes and cisterns) in architecture, engineering, and everyday life. | K3 |
| CO3 | Analyze data, draw logical conclusions, and make informed decisions under uncertainty. | K4 |
| CO4 | Solve the problems involving travel, time management, and resource allocation. | K3 |
| CO5 | Solve the problems that involve relationships, logic, and optimization**.** | K3 |
| CO6 | Calculate master time, language, space, and causality. | K3 |

**UNIT-I: Numbers and Calculations**

- Number System: This fundamental topic underpins many others.
- Simple Interest & Compound Interest: Understanding growth of money over time.
- H.C.F and L.C.M: Finding common factors and multiples of numbers.
- Percentage: Representing parts of a whole out of 100.
- Ratio and Proportion: Comparing quantities in fixed relationships.
- Profit and Loss: Calculating gains and losses in business transactions.

**UNIT-II: Geometry and Measurement**

- Mensuration: Calculating area, volume, and perimeter of various shapes.
- Cubes and Cuboids: Specific shapes in 3D geometry.
- Pipes and Cistern: Solving problems involving flow rates and filling times.

**UNIT-III: Data and Reasoning**

- Average: Finding the central tendency of a set of data.
- Mixture and Alligation: Blending liquids with different concentrations.
- Probability: Predicting the likelihood of events happening.
- Syllogism: Logical reasoning based on given premises.
- Venn Diagram: Visually representing relationships between sets.

**UNIT-IV: Movement and Time**

- Boats and Streams: Calculating speed and direction with current.
- Trains: Solving problems involving distances, speeds, and times.
- Time and Work: Calculating workload based on time and efficiency.
- Time, Speed and Distance: Fundamental relationship in motion problems.

**UNIT-V: Problem Solving and Puzzles**

- Ages: Word problems involving age calculations.
- Partnership: Sharing profits or losses based on investment or time.
- Races and Games: Solving competitive scenarios with logic and math.
- Permutations and Combinations: Counting arrangements and possibilities.
- Problems on Trains: Specific type of motion problems.
- Letter and Number Series: Identifying patterns and sequences.
- Odd Man Out Series: Recognizing logical inconsistencies.
- Order and Ranking: Arranging objects based on given criteria.
- Seating Arrangement: Permutations with limitations.

**UNIT-VI: Miscellaneous**

- Calendar & Clock: Understanding days, months, and timekeeping.
- Coding and Decoding: Secret messages and puzzles.
- Direction Sense: Reasoning about spatial relationships.
- Cause and Effect: Identifying relationships between actions and consequences.

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Pedatadepalli, **TADEPALLIGUDEM–534 101.**W.G.Dist**. (A.P)**

## Department of Electrical & Electronics Engineering (NBA Accredited)

**Ref. No: SVEC/EEE/Students/2022-23/25** **Date: 05-09-2022**

## Circular

It is to inform that Skill Advanced Course on **"Python Programming"** (V20SOC3) for **B. Tech (EEE) V semester Section A&B students** will be conducted from **08/09/2022 to 21/09/2022.** It was mandatory for all the V Semester Students.

**Head of the Department**

**Dr. Sudha Rani Donepudi,** M.E., Ph.D
Head of the Department
Electrical & Electronics Engineering
SRI VASAVI ENGINEERING COLLEGE
(Autonomous)

## Course Title: Python Programming

## (Skill Advanced Course)

**Course Code: V20SOC3**

## SYLLABUS

### Course Outcomes:

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

| CO No. | Course Outcome | Blooms Knowledge Level |
|---|---|---|
| CO1 | Construct programs to solve real-world problems. | K3 |
| CO2 | Understand and efficiently manage different data structures. | K2 |
| CO3 | Develop and implement clean, efficient, and modular Python code through masterful argument handling and code organization. | K3 |
| CO4 | Construct language of objects, crafting robust and flexible Python programs. | K3 |
| CO5 | Develop robust and flexible Python programs with advanced inheritance and polymorphism techniques. | K3 |

**UNIT-I: Mastering Basic Syntax and Data Types**

Python syntax, data types (numbers, strings, collections), variable assignment, and basic number system conversions. Operators for mathematical and logical operations on various data types.

**UNIT-II: Exploring and Manipulating Data Structures**

Lists, tuples, sets, and dictionaries; mutable vs. immutable nature of each data structure, their functionalities through built-in functions and methods; Master list comprehension and tuple comprehension for concise and powerful data manipulation.

**UNIT-III: Crafting Powerful Functions**

Design and implement functions with positional, keyword, and default arguments; Leverage function aliases for code reusability and organization; Apply the "DRY" (Don't Repeat Yourself) principle to write efficient and modular code.

**UNIT-IV: Building Object-Oriented Programs**

Key concepts of object-oriented programming (OOP) in Python: classes, objects, reference variables, self-variable, constructors; Differentiate between instance, static, and local variables, and implement corresponding methods; Utilize getter and setter methods to control attribute access and maintain data integrity.

**UNIT-V: Exploring Advanced Concepts**

Principles of inheritance (single, multiple, multi-level, hybrid);"IS-A" and "Has-A" relationships; Resolution Order (MRO) in inheritance scenarios; Polymorphism through Duck Typing, operator overloading, constructor overloading, and method overriding.

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(Accreted by NBA & NAAC with A' Grade)
Pedatadepalli, Tadepalligudem, W.G.Dt, A.P-534101

**Department of Mechanical Engineering**

| | |
|---|---|
| **Name of the program :** | Product Design using CATIA Training |
| **Number of students attended :** | 64 |
| **Dates :** | 26-12-2022 to 31-12-2022 |

# REPORT

One week workshop on

**Product Design using CATIA**

in association with **APSSDC**
(Andhra Pradesh State Skill Development Corporation)

**26th & 31th December 2022**

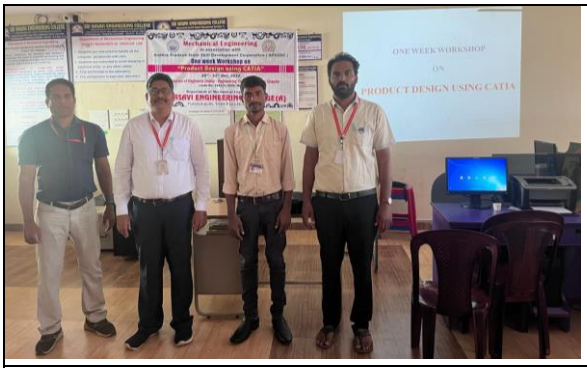
**BY INSTITUTION OF ENGINEERS (INDIA) – ENGINEERING COLLEGE STUDENTS' CHAPTER**

**(Chapter Code No. 534101/SVEC/MC)**

**under MECHANICAL ENGINEERING DIVISION**


Sri Vasavi Engineering College(Autonomous)
(Sponsored By Sri Vasavi Educational Society)
(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada)
Pedatadepalli, TADEPALLIGUDEM-534 101, W.G. Dist.

REPORT ON ONE WEEK WORKSHOP ON **PRODUCT DESIGN USING CATIA**

| | |
|---|---|
|  |  |
| Inauguration by Dr. M.V.Ramesh HoD | Address by Dr. M.V.Ramesh HoD |

Brief Details about the Programme:

Product Design using CATIA (Skill Oriented Course-I)

One week workshop on "Product Design Using CATIA" was conducted by the Department of Mechanical Engineering under **INSTITUTION OF ENGINEERS (INDIA)– ENGINEERING COLLEGE STUDENTS' CHAPTER** for the students of B.Tech., III semester "A" section during **26.12.2022 (Monday) to 31.12.2022** (Saturday) at CAD/CAM lab of Mechanical Engineering Department . Around 64 students have participated in this Workshop and understood the product design using CATIA software. They practiced the various Mechanical Engineering components using different modeules namely sketcher, part, assembly and drawing.

**26.12.2022 (Monday) Inaugural session (10.00AM): Mr. M.V Ramesh**, Professor & HoD welcomed the dignitaries, faculty members of the department of mechanical Engineering and student participants to the event. While delivering his opening remarks he conveyed his heartfelt thanks to the management, Principal for the support and permission to conduct this event. He thanked the coordinators of the event Mr. V. Ravi Kumar and Mr. M. Chaitanya for their efforts. In his speech he explained that the students should have exposure to such hands on practice workshops to learn and visualize the products in 3D.

The technical session started from 10.15 AM onwards in two sessions per day for one week**.** The students were given practice session after explaining the modeling for one hour in each session.

**The contents of the Workshop are:**

1. 26.12.22 : Introduction to CATIA software & Interface of the software
2. 27.12.22 : Introduction to sketcher workbench, sketch creation, modifications, constraining
3. 28.12.22 : Introduction to part design, creating 3D models from 2d sketches
4. 29.12.22 : Creating 3d models by following correct tree structure, Boolean operations, applying the draft analysis to created models
5. 30.12.22 : Introduction to assembly, creating assembly for the 3d models
6. 31.12.22 : Introduction to drafting, creating drafting to the 3d models.

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Pedatadepalli, Tadepalligudem, W.G.Dt, A.P-534101

**Department of Mechanical Engineering**

# SOC
# on
# " Product Design using CATIA Training "

**Topic**: Product Design using CATIA

**Dates:** 26-12-2022 to 31-12-2022

By Institute of Engineers, India – Engineering Students Chapter - In association with APSSDC

Coordinators:

**Mr V Ravi Kumar**

**Mr M Chaitanya**

# Sri Vasavi Engineering College (Autonomous)

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Pedatadepalli, Tadepalligudem, W.G.Dt, A.P-534101


## Department of Mechanical Engineering

Course Title: **Product Design using CATIA Training**
Duration: **5 Days**

**Course contents:**

**Day 1: Introduction to CATIA and Basic Sketching**

1. Introduction to CATIA
   - Overview of CATIA software
   - Importance in product design and engineering
2. CATIA User Interface
   - Layout and customization
   - Toolbars and workbenches
3. Basic Sketching in CATIA
   - Understanding sketch tools
   - Creating 2D sketches
4. Constraints and Dimensions
   - Applying constraints to sketches
   - Adding dimensions for accuracy

**Day 2: 3D Part Design**

1. Introduction to 3D Part Design
   - Basics of 3D modeling
   - Extrusions and revolutions
2. Advanced Part Design Features
   - Fillets, chamfers, and shells
   - Mirroring and patterning features
3. Editing and Modifying Parts
   - Direct modeling techniques
   - Boolean operations

**Day 3: Assembly Design**

1. Introduction to Assembly Design
   - Basics of assembling components
   - Creating constraints and connections
2. Managing Components
   - Exploded views
   - Bill of Materials (BOM)

3. Interference Detection and Clash Analysis
   - Checking for interferences
   - Resolving clashes in assemblies

**Day 4: Drafting and Documentation**

1. Creating Drawings in CATIA
   - Generating 2D drawings from 3D models
   - Adding dimensions and annotations
2. Bill of Materials and Balloons
   - Creating BOM in drawings
   - Adding balloons to identify components

**Day 5: Advanced Topics and Project Work**

1. Surface Modeling
   - Introduction to surface design
   - Creating complex shapes with surfaces
2. Introduction to Product Lifecycle Management (PLM)
   - Understanding the importance of PLM
   - Overview of CATIA PLM tools
3. Project Work and Presentations
   - Applying learned skills to a small project
   - Presenting the designed product

**Course Outcomes:**

- Students will be familiar with the CATIA interface.
- Students will be able to create and manipulate basic sketches.
- Students will be proficient in creating 3D parts using various features in CATIA.
- Students will understand advanced part design techniques.
- Students will be capable of creating and managing assemblies in CATIA.
- Students will understand interference detection and resolution techniques.
- Students will be able to produce detailed engineering drawings using CATIA.
- Students will understand how to create and manage BOMs in drawings.
- Students will understand advanced topics like surface modelling and PLM.
- Students will be able to work on a small project, applying the learned skills, and present their designs.

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Pedatadepalli, Tadepalligudem, W.G.Dt, A.P-534101

**Department of Mechanical Engineering**

| | |
|---|---|
| **Name of the program :** | Product Design using CATIA Training |
| **Number of students attended :** | 59 |
| **Dates :** | 2-1-2023 to 7-1-2023 |

# REPORT

One week workshop on

## Product Design using CATIA

in association with **APSSDC**
(Andhra Pradesh State Skill Development Corporation)

**02nd to 07th January 2023**

BY INSTITUTION OF ENGINEERS (INDIA) – ENGINEERING COLLEGE STUDENTS' CHAPTER

**(Chapter Code No. 534101/SVEC/MC)**

**under MECHANICAL ENGINEERING DIVISION**


Sri Vasavi Engineering College(Autonomous)
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Pedatadepalli, TADEPALLIGUDEM-534 101, W.G. Dist.

# REPORT ON ONE WEEK WORKSHOP ON PRODUCT DESIGN USING CATIA

Inauguration by Dr. M.V.Ramesh HoD

Practice Session by Mr. D. Rambabu

Brief Details about the Programme:

## Product Design using CATIA (Skill Oriented Course-I)

One week workshop on "Product Design Using CATIA" was conducted by the Department of Mechanical Engineering under **INSTITUTION OF ENGINEERS (INDIA)– ENGINEERING COLLEGE STUDENTS' CHAPTER** for the students of B.Tech., III semester "B" section during **02.01.2023 (Monday) to 07.01.2023** (Saturday) at CAD/CAM lab of Mechanical Engineering Department . Around 59 students have participated in this Workshop and understood the product design using CATIA software. They practiced the various Mechanical Engineering components using different modules namely sketcher, part, assembly and drawing.

**02.01.2023 (Monday) Inaugural session (10.00AM): Mr. M.V Ramesh**, Professor & HoD welcomed the dignitaries, faculty members of the department of mechanical Engineering and student participants to the event. While delivering his opening remarks he conveyed his heartfelt thanks to the management, Principal for the support and permission to conduct this event. He thanked the coordinators of the event Mr. V. Ravi Kumar and Mr. M. Chaitanya for their efforts. In his speech he explained that the students should have exposure to such hands on practice workshops to learn and visualize the products in 3D.

The technical session started from 10.15 AM onwards in two sessions per day for one week. The students were given practice session after explaining the modeling for one hour in each session.

**The contents of the Workshop are:**

1. 02.01.23 : Introduction to CATIA software & Interface of the software
2. 03.01.23 : Introduction to sketcher workbench, sketch creation, modifications, constraining
3. 04.01.23 : Introduction to part design, creating 3D models from 2d sketches
4. 05.01.23 : Creating 3d models by following correct tree structure, Boolean operations applying the draft analysis to created models
5. 06.01.23 : Introduction to assembly, creating assembly for the 3d models
6. 07.01.23 : Introduction to drafting, creating drafting to the 3d models.

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**Pedatadepalli, Tadepalligudem, W.G.Dt, A.P-534101**


## DEPARTMENT OF MECHANICAL ENGINEERING

SVEC/ME-Dept./Circular/2022-23/56

Date: 31-12-2022

## CIRCULAR

**(Attn: B.Tech. III Semester 'B' Section Students)**

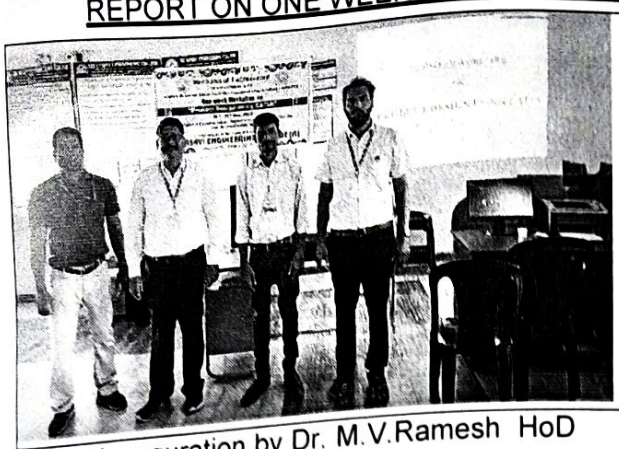
All the students of B.Tech. III Semester, 'B' section are informed to attend the one week workshop as a part of Skill Oriented Course-I - **V20SOC01** (Certificate course offered by APSSDC) on "**Product design using CATIA**" from 02.01.2023 (Monday) to 07.01.2023 (Saturday). The classes will be conducted in Forenoon session (10.00 AM to 1.00 PM) and Afternoon session (2.00 PM to 5.00 PM). The participants should maintain an attendance percentage of 60% and should pass the test conducted by the APSSDC for the award of the participation Certificate.

31/12/22

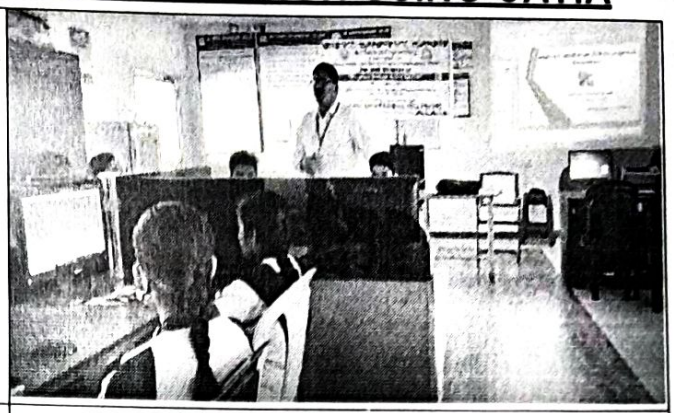
**HoD – ME**

Head of the Department
Mechanical Engineering
Sri Vasavi Engineering College
TADEPALLIGUDEM-534 101

# REPORT ON ONE WEEK WORKSHOP ON PRODUCT DESIGN USING CATIA



Inauguration by Dr. M.V.Ramesh HoD



Address by Dr. M.V.Ramesh HoD

Brief Details about the Programme:

## Product Design using CATIA (Skill Oriented Course-I)

One week workshop on "Product Design Using CATIA" was conducted by the Department of Mechanical Engineering under **INSTITUTION OF ENGINEERS (INDIA)– ENGINEERING COLLEGE STUDENTS' CHAPTER** for the students of B.Tech., III semester "A" section during **26.12.2022 (Monday) to 31.12.2022** (Saturday) at CAD/CAM lab of Mechanical Engineering Department . Around 64 students have participated in this Workshop and understood the product design using CATIA software. They practiced the various Mechanical Engineering components using different modeules namely sketcher, part, assembly and drawing.

**26.12.2022 (Monday) Inaugural session (10.00AM): Mr. M.V Ramesh**, Professor & HoD welcomed the dignitaries, faculty members of the department of mechanical Engineering and student participants to the event. While delivering his opening remarks he conveyed his heartfelt thanks to the management, Principal for the support and permission to conduct this event. He thanked the coordinators of the event Mr. V. Ravi Kumar and Mr. M. Chaitanya for their efforts. In his speech he explained that the students should have exposure to such hands on practice workshops to learn and visualize the products in 3D.

The technical session started from 10.15 AM onwards in two sessions per day for one week. The students were given practice session after explaining the modeling for one hour in each session.

**The contents of the Workshop are:**

1. 26.12.22 : Introduction to CATIA software & Interface of the software
2. 27.12.22 : Introduction to sketcher workbench, sketch creation, modifications, constraining
3. 28.12.22 : Introduction to part design, creating 3D models from 2d sketches
4. 29.12.22 : Creating 3d models by following correct tree structure, Boolean operations, applying the draft analysis to created models
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Pedatadepalli, Tadepalligudem, W.G.Dt, A.P-534101

## DEPARTMENT OF MECHANICAL ENGINEERING

SVEC/ME-Dept./Circular/2022-23/55

Date: 24-12-2022

## CIRCULAR

**(Attn: B.Tech. III Semester 'A' Section Students)**

All the students of B.Tech. III Semester, 'A' section are informed to attend the one week workshop as a part of Skill Oriented Course-I - **V20SOC01** (Certificate course offered by APSSDC) on "**Product design using CATIA**" from 26.12.2022 (Monday) to 31.12.2022 (Saturday). The classes will be conducted in Forenoon session (10.00 AM to 1.00 PM) and Afternoon session (2.00 PM to 5.00 PM). The participants should maintain an attendance percentage of 60% and should pass the test conducted by the APSSDC for the award of the participation Certificate.

24/12/22

HoD – ME

Head of the Department
Mechanical Engineering
Sri Vasavi Engineering College
TADEPALLIGUDEM-534 101

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Pedatadepalli, Tadepalligudem, W.G.Dt, A.P-534101

**Department of Mechanical Engineering**

# SOC
# on
# "Product Design using CATIA Training"

**Topic**: Product Design using CATIA

**Dates:** 2-1-2023 to 7-1-2023

By Institute of Engineers, India – Engineering Students Chapter - In association with APSSDC

Coordinators:

**Mr V Ravi Kumar**

**Mr M Chaitanya**

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## Department of Mechanical Engineering

Course Title: **Product Design using CATIA Training**
Duration: **5 Days**

**Course contents:**

**Day 1: Introduction to CATIA and Basic Sketching**

1. Introduction to CATIA
   - Overview of CATIA software
   - Importance in product design and engineering
2. CATIA User Interface
   - Layout and customization
   - Toolbars and workbenches
3. Basic Sketching in CATIA
   - Understanding sketch tools
   - Creating 2D sketches
4. Constraints and Dimensions
   - Applying constraints to sketches
   - Adding dimensions for accuracy

**Day 2: 3D Part Design**

1. Introduction to 3D Part Design
   - Basics of 3D modeling
   - Extrusions and revolutions
2. Advanced Part Design Features
   - Fillets, chamfers, and shells
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3. Editing and Modifying Parts
   - Direct modeling techniques
   - Boolean operations

**Day 3: Assembly Design**

1. Introduction to Assembly Design
   - Basics of assembling components
   - Creating constraints and connections
2. Managing Components
   - Exploded views
   - Bill of Materials (BOM)

3. Interference Detection and Clash Analysis
   - Checking for interferences
   - Resolving clashes in assemblies

**Day 4: Drafting and Documentation**

1. Creating Drawings in CATIA
   - Generating 2D drawings from 3D models
   - Adding dimensions and annotations
2. Bill of Materials and Balloons
   - Creating BOM in drawings
   - Adding balloons to identify components

**Day 5: Advanced Topics and Project Work**

1. Surface Modeling
   - Introduction to surface design
   - Creating complex shapes with surfaces
2. Introduction to Product Lifecycle Management (PLM)
   - Understanding the importance of PLM
   - Overview of CATIA PLM tools
3. Project Work and Presentations
   - Applying learned skills to a small project
   - Presenting the designed product

**Course Outcomes:**

- Students will be familiar with the CATIA interface.
- Students will be able to create and manipulate basic sketches.
- Students will be proficient in creating 3D parts using various features in CATIA.
- Students will understand advanced part design techniques.
- Students will be capable of creating and managing assemblies in CATIA.
- Students will understand interference detection and resolution techniques.
- Students will be able to produce detailed engineering drawings using CATIA.
- Students will understand how to create and manage BOMs in drawings.
- Students will understand advanced topics like surface modelling and PLM.
- Students will be able to work on a small project, applying the learned skills, and present their designs.

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Pedatadepalli, Tadepalligudem, W.G.Dt, A.P-534101

**Department of Mechanical Engineering**

**Name of the program :** Computational Fluid Dynamics (CFD) using ANYSYS Fluent Software

**Number of students attended :** 124

**Dates :** 2-5-2023 to 6-5-2023

# REPORT

Five days Skill Oriented Course -2

on

***"Computational Fluid Dynamics (CFD) using ANYSYS Fluent Software"***

by

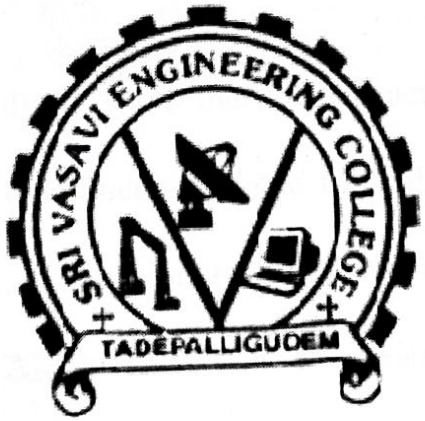
**Dr. P. Gangadhar Venkata Ramana**

Research Scholar, IIT, Kharagpur

during

02nd to 06st May, 2023

## MECHANICAL ENGINEERING DEPARTMENT

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Pedatadepalli, TADEPALLIGUDEM-534 101, W.G. Dist.

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**Pedatadepalli, Tadepalligudem, W.G.Dt, A.P-534101**

## Department of Mechanical Engineering

Date: 26.04.2023

To
The Principal,
Sri Vasavi Engineering College,
Pedatadepalli, Tadepalligudem.

As Allowed
CAO 27/4/23

Sub: Request for permission to conduct Skill oriented course (SOC) for the students – Reg.

Respected Sir,

As a part of V20 regulations, it is mandatory for the B.Tech. IV semester students of Mechanical Engineering to undergo Skill Oriented Course (V20SOC02). We are planning to organize training on commercial Computational Fluid Dynamics (CFD) software Ansys Fluent from 02.05.2023 (Tuesday) to 06.05.2023 (Saturday) by Mr. Gangadhar Venkata Ramana. P, Research scholar, IIT, Kharagpur for 5 days. I request you to please give us permission to conduct this course. The content offered during the CFD course is enclosed herewith for your kind information.

Thank you sir,

Yours faithfully,

26/4/23

HoD-ME

**Computational Fluid Dynamics (CFD)**

| S. No. | Course contents | Duration |
|---|---|---|
| 1. | **Introduction and applications of CFD** | 1 hr |
| 2. | **Mathematics** | |
| | Vector calculus | 1 hr |
| | Type of partial differential equations and boundary conditions | 1 hr |
| | Discretisation and numerical integration | 1 hr |
| 3. | **Derivation of governing Equation** | |
| | Numerical methodologies and Reynolds transport theorem | 1 hr |
| | Mass conservation equation | 1 hr |
| | Momentum conservation equation for inviscid flows | 2 hr |
| | Momentum conservation equation for viscous flows | 2 hr |
| | Energy conservation equation | 1 hr |
| 4. | **Finite Difference Method** | |
| | Taylor series, forward and backward difference methods | 1 hr |
| | Central difference method and errors in numerical solutions | 1 hr |
| | Finite difference solution for steady heat conduction through a fin | 1 hr |
| 5. | **Commercial CFD software Ansys Fluent workshop** | 10 hr |
| | | Total 24 hrs |

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Pedatadepalli, Tadepalligudem, W.G.Dt, A.P-534101


## DEPARTMENT OF MECHANICAL ENGINEERING

Date: 29-04-2023

SVEC/ME-Dept./Circular/2022-23/92

## CIRCULAR

**(Attn: All the B.Tech. IV sem students)**

All the students of B.Tech. IV sem 'A' & 'B' sections are informed to attend Skill Oriented Course (V20SOC02) on "**Computational Fluid Dynamics (CFD) using Ansys Fluent**" commencing from 02-05-2023 (Tuesday) to 06-05-2023 (Saturday). The regular class work will be conducted in one session and training programme will be conducted on the other session as mentioned below. The participants should maintain an attendance percentage of 90% and should pass the test conducted at the end of the training for the award of the participation Certificate.

| S.No. | Date | Session 1 (9.30 AM -12.30 PM) | Session 2 (1.30 PM – 4.30 PM) |
|---|---|---|---|
| 1. | 02-05-2023 (Tuesday) | Section - A | Section - B |
| 2. | 03-05-2023 (Wednesday) | Section - A | Section - B |
| 3. | 04-05-2023 (Thursday) | Section - A | Section - B |
| 4. | 05-05-2023 (Friday) | Section - A | Section - B |
| 5. | 06-05-2023 (Saturday) | Section - A | Section - B |

**Note:**

1. Training programme will be conducted in CAD lab & Dassault systems lab.
2. Students having own laptops should load the ANSYS student 2022 R2 software.

29/4/23

HoD - ME
Head of the Department
Mechanical Engineering
Sri Vasavi Engineering College
TADEPALLIGUDEM-534 101

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(Accredited by NBA & NAAC with 'A' Grade, Recognized by UGC Under Section 2(f) & 12(B))

**Pedatadepalli, Tadepalligudem, W.G.Dt, A.P-534101**

## Department of Mechanical Engineering

Date: 26.04.2023

To
The Principal,
Sri Vasavi Engineering College,
Pedatadepalli, Tadepalligudem.

Sub: Requisition for department requirements - Skill oriented course (SOC-2) – Reg.

Respected Sir,

I would like to bring to your kind notice that from the Department of Mechanical Engineering, we are organizing Skill Oriented course-2 (V20SOC02) on **"Computational Fluid Dynamics using Ansys"**. The training will commence from 02.05.23 (Tuesday) to 06.05.23 (Saturday). In this connection, we request you to make arrangements to provide the following department requirements for the conduct of the event.

1. Breakfast, lunch, snacks (2 nos.) for 5 days from 02.05.23 to 06.05.23.

Thank you sir,

Yours faithfully,

HoD-ME

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Pedatadepalli, Tadepalligudem, W.G.Dt, A.P-534101

**Department of Mechanical Engineering**

# SOC
# on
# " Computational Fluid Dynamics (CFD) using ANYSYS Fluent Software "

**Topic**: Product Design using CATIA

**Dates:** 2-5-2023 to 6-5-2023

**Coordinators:**
**Mr V Ravi Kumar**
**Mr M Chaitanya**

**Resource person:**
**P Gangadhar Venkata ramana**
**IIT Kharagpur – Research scholar**

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## Department of Mechanical Engineering

| | |
|---|---|
| **Name of the program :** | Computational Fluid Dynamics (CFD) using ANYSYS Fluent Software |
| Dates: | 2-5-2023 to 6-5-2023 |

**Computational Fluid Dynamics (CFD)**

| S. No. | Course contents | Duration |
|---|---|---|
| 1. | **Introduction and applications of CFD** | 1 hr |
| 2. | **Mathematics** | |
| | Vector calculus | 1 hr |
| | Type of partial differential equations and boundary conditions | 1 hr |
| | Discretisation and numerical integration | 1 hr |
| 3. | **Derivation of governing Equation** | |
| | Numerical methodologies and Reynolds transport theorem | 1 hr |
| | Mass conservation equation | 1 hr |
| | Momentum conservation equation for inviscid flows | 2 hr |
| | Momentum conservation equation for viscous flows | 2 hr |
| | Energy conservation equation | 1 hr |
| 4. | **Finite Difference Method** | |
| | Taylor series, forward and backward difference methods | 1 hr |
| | Central difference method and errors in numerical solutions | 1 hr |
| | Finite difference solution for steady heat conduction through a fin | 1 hr |
| 5. | **Commercial CFD software Ansys Fluent workshop** | 10 hr |
| | Total | 24 hrs |

# “Basic Digital Circuit Design with VHDL and QuestaSim Tool”

No of Students Registered - 70

No of Students completed the course - 70

☏08818-284577, 284355 Ext: 321; Fax: 08818-284577 Visit us at: www.srivasaviengg.ac.in

# SRI VASAVI ENGINEERING COLLEGE (AUTONOMOUS)

(Sponsored by Sri Vasavi Educational Society)
(Approved by **AICTE**, New Delhi & Recognized by **UGC** under section **2(f) & 12(B)**)
(Permanently affiliated to JNTUK, Kakinada, Accredited by **NBA** and **NAAC** with '**A**' Grade)
Pedatadepalli, **TADEPALLIGUDEM – 534 101.**W.G.Dist**. (A.P)**

**Department of Electronics and Communication Engineering**

Skill Oriented Program on

# "Basic Digital Circuit Design with VHDL and QuestaSim Tool"

# Course Content

In our ECE Department, The SPACE Club has organized One week Skill Oriented Program on “Basic Digital Circuit Design with VHDL and QuestaSim Tool" under the Scheme of SPICES, Sponsored by AICTE, New Delhi. This program was conducted during 27th MAR to 1st APR-2023. In this program, Total 70 Members were participated as teams. The Team Size may consist of 4 to 5 students. Likewise Total 14 Teams were Formed.

**Course Description:**

Digital Circuit Design with VHDL and QuestaSim is a course designed to provide students with a comprehensive understanding of digital circuit design principles and techniques using VHDL and QuestaSim. The course covers the basics of digital circuits, VHDL syntax and data types, and behavioral modeling with VHDL. Students will learn how to design, simulate, and analyze combinational and sequential circuits using QuestaSim.

**Day 1: Introduction to Digital Circuit  Introduction to Digital Circuit Design**

- Overview of digital circuits and their applications
- Overview of VHDL and QuestaSim
- VHDL syntax and data types
- Behavioral modeling with VHDL
- Creation of a basic project in QuestaSim

**Day 2: Combinational Circuit Design and Simulation**

- Combinational circuit design principles
- VHDL modeling of combinational circuits
- Simulation of combinational circuits using QuestaSim
- Lab: Design and simulation of a simple combinational circuit•

**Day 3: Sequential Circuit Design and Simulation**

- Sequential circuit design principles
- VHDL modeling of sequential circuits
- Simulation of sequential circuits using QuestaSim

- Lab: Design and simulation of a simple sequential circuit

**Day 4: State Machine Design with VHDL and Simulation**

- State machine design principles
- VHDL modeling ofstate machines
- Simulation of state machines using QuestaSim
- Lab: Design and simulation of a simple state machine

**Day 5: Advanced Topics in Digital Circuit Design and Project Work**

- Using VHDL for control logic design
- Design optimization and performance analysis with QuestaSim
- Final project work, incorporating the topics covered in the previous days
- Presentation of final project to the class

**Day 6: Project Presentations and Wrap-Up Final project presentations by students**

- Review of key concepts and topics covered throughout the course
- Open discussion and Q&A session
- Course evaluations and feedback

All the participants felt very happy and gave very good Feedback towards this Program. .

**Total amount spent by the college towards this Program :**

No. of Students Registered : 70

Registration Fee Per Head : Rs 215

Total amount paid to Trainers : Rs 15,000

## Course Outcomes of "Basic Digital Circuit Design with VHDL and QuestaSim Tool"

After Completing the Skill Oriented Course , The students will be able to

1. Explain the VHDL syntax and data types ---K2

2. Demonstrate the Principles of Combinational circuit design ----K2

3. Simulate of sequential circuits using QuestaSim tool -----K3

4. Design optimization and performance analysis with QuestaSim -----K3

# “Sensor Interfacing and Cloud Computing”

No of Students Registered - 143

No of Students completed the course - 143

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# SRI VASAVI ENGINEERING COLLEGE (AUTONOMOUS)

(Sponsored by Sri Vasavi Educational Society)
(Approved by **AICTE**, New Delhi & Recognized by **UGC** under section **2(f) & 12(B)**)
(Permanently affiliated to JNTUK, Kakinada, Accredited by **NBA** and **NAAC** with '**A**' Grade)
Pedatadepalli, **TADEPALLIGUDEM – 534 101.**W.G.Dist**. (A.P)**

## Department of Electronics and Communication Engineering

One week Boot Camp Program on
**"Sensor Interfacing and Cloud Computing"** Photos

# Course Content

**Day 1 Session 1:**

- Introduction to Embedded Systems
- Advantages ▪ Day-to-day applications
- Introduction to IC technology
- Briefing on Microprocessors and Microcontrollers
- Pin description of ATMega328
- Board and Pin description of Arduino Uno
- Installation of Arduino IDE

**Day 1 Session 2:**

- Arduino Language reference
- LED blink and fading
- Controlling LEDs with push buttons
- Controlling buzzers with push buttons
- Delay programming

**Day 2 Session 1:**

- IR sensor working principle
- Interfacing IR with Arduino
- 7 segment display working principle
- Interfacing 7-segment display with Arduino
- Project 1: Up Counter
- Project 2: Down Counter
- Project 3: Obstacle detector/ Burglar Alarm

**Day 2 Session 2:**

- Serial Communication & Serial monitor
- Ultrasonic sensor working principle
- Interfacing ultrasonic sensor with Arduino
- Project 4: Obstacle detection
- Project 5: Distance measurement

**Day 3 Session 1:**

- Liquid Crystal Display working principle & commands
- Interfacing LCD with Arduino
- Project 6: LCD message Display
- Project 7: Scrolling message in LCD

**Day 3 Session 2:**

- Temperature sensor working principle
- Humidity sensor working principle
- Interfacing temperature and humidity sensor with Arduino
- Project 8: Local Weather station

**Day 4 Session 1:**

- Introduction to actuators & classification
- DC motor working principle
- H-bridge circuit ▪ Interfacing DC motor with Arduino
- Project 9: On/Off control of Fan
- Project 10: Speed control of Fan using a potentiometer

**Day 4 Session 2:**

- Relay principle and operation
- Interfacing Relay with Arduino
- Project 11: Controlling lights and fans using Arduino

**Day 5 Session 1:**

- Demo on 3D printing
- Introduction to Fritzing
- Downloading part libraries to fritzing
- Project 12: Constructing schematics in Fritzing

**Day 5 Session 2:**

- Challenge 1: Design a schematic for given Project and construct it in fritzing

**Day 6 Session 1:**

- Challenge 2: Spot title
- Interactive Activity: Guess the Buzz- Quiz Show on Arduino and other devices

**Day 6 Session 2:**

▪ Event Highlights video presentation ▪ Feedback ▪ Certificate Distribution, Vote of Thanks

# Course Outcomes of "Sensor Interfacing and Cloud Computing"

After Completing the Skill Oriented Course , The students will be able to

1. Explain the principles of various types of sensors and their applications. ---K2

2. Design and implement interfaces for connecting sensors to microcontrollers or embedded systems. ---K3

3. Develop skills in programming microcontrollers for sensor data acquisition and processing. ---K3

4. Explain various cloud services and platforms for data storage, processing. ---K2

**Academic Year: 2022-23**

**Skill Oriented Course-I**

| S.No. | Sem & Section | Title | Date (From -to) |
|---|---|---|---|
| 1. | III SEM CSE-C&D | AZURE (AZ-900) | 01/11/2022 to 05/11/2022 |
| 2. | III SEM CSE-A&B | AZURE (AZ-900) | 26/10/2022 to 31/10/2022 |

**Ref. No:** SVEC/CSE/2022-23/I Sem/Circular/27 **Date:** 31/10/2022

## CIRCULAR

As per **V20 regulations,** the **Skill Oriented Course-1** shall be conducted for the students of **III SEM B.Tech** for **42 hours duration**. In this regard, students are requested to follow the below mentioned guidelines:

**Evaluation of skill oriented course:**

The course will be evaluated at the end of the semester for **50 marks** (**record:** 15 marks and **viva-voce:** 35 marks) along with laboratory end examinations.

**The following is schedule for conduction of Skill Oriented Courses:**

| S.No. | Section | Course Name | From Date | To Date |
|---|---|---|---|---|
| 1 | C &D | AZURE (AZ-900) | 01/11/2022 (Tuesday) | 05/11/2022 (Saturday) |

**Note:**

1. Attendance is Mandatory.
2. Students should bring their **own Laptops**.

Head of the Department

Head of the Department
Dept. of Computer Science & Engineering
Sri Vasavi Engineering College
TADEPALLIGUDEM-534 101

**Copy to:**

1. Principal
2. III SEM CSE-C & DFaculty and Students

**Ref. No:** SVEC/CSE/2022-23/I Sem/Circular/24 **Date:** 21/10/2022

## CIRCULAR

As per **V20 regulations,** the **Skill Oriented Course-1** shall be conducted for the students of **III SEM B.Tech** for **42 hours duration**. In this regard, students are requested to follow the below mentioned guidelines:

**Evaluation of skill oriented course:**

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**The following is schedule for conduction of Skill Oriented Courses:**

| S.No. | Section | Course Name | From Date | To Date |
|---|---|---|---|---|
| 1 | A & B | AZURE (AZ-900) | 26/10/2022 (Wednesday) | 31/10/2022 (Monday) |

**Note:**

3. Attendance is Mandatory.
4. Students should bring their **own Laptops**.

Head of the Department

Head of the Department
Dept. of Computer Science & Engineering
Sri Vasavi Engineering College
TADEPALLIGUDEM-534 101

**Copy to:**

1.Principal
2.III SEM CSE-A & B Faculty and Students

## Syllabus Details

## AZURE (AZ-900)

**Course Outcomes: After Successful completion of the Course, the student will be able to:**

**CO1:** Describe several cloud services and types of cloud computing. [K1]

**CO2:** Explain core Azure - architectural components and resources. [K2]

**CO3:** Use Azure management tools and core solutions available in Azure. [K3]

**CO4:** Illustrate Azure security , Azure network security features, identity, governance, privacy and compliance resources. [K3]

**CO5:** Illustrate planning and managing costs, Azure Service Level Agreements(SLAs) and service lifecycles [K3]

**Topics Covered:**

1. Describe Cloud Concepts
   - Identify the benefits and considerations of using cloud services
   - Describe the differences between categories of cloud services
   - Describe the differences between types of cloud computing

2. Describe Core Azure Services
   - Describe the core Azure architectural components
   - Describe core resources available in Azure

3. Describe core solutions and management tools on Azure
   - Describe core solutions available in Azure
   - Describe Azure management tools

4. Describe general security and network security features
   - Describe Azure security features
   - Describe Azure network security

5. Describe identity, governance, privacy, and compliance features
   - Describe core Azure identity services
   - Describe Azure governance features
   - Describe privacy and compliance resources

| | |
|---|---|
| 6. Describe Azure cost management and Service Level Agreements | • Describe methods for planning and managing costs<br>• Describe Azure Service Level Agreements (SLAs) and service lifecycles |
| 7. Practice Test & Exam preparation | • Discussion on questions |

## Skill Oriented Course-II

| S.No. | Sem & Section | Title | Date (From -to) |
|---|---|---|---|
| 1. | IV SEM CSE-C&D | Advanced Python Programming | 25/04/2023 to 29/04/2023 |
| 2. | IV SEM CSE-A&B | Advanced Python Programming | 24/04/2023 to 28/04/2023 |

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PEDATADEPALLI, TADEPALLIGUDEM-534 101, W.G.Dist.
Department of Computer Science & Engineering (Accredited by NBA)


**Ref. No:** SVEC/CSE/2022-23/II Sem/Circular/80 **Date:** 17/04/2023

## CIRCULAR

As per **V20 regulations,** the **Skill Oriented Course-2** shall be conducted for the students of **IV SEM B.Tech**. In this regard, students are requested to follow the below mentioned guidelines:

**Evaluation of skill oriented course:**

The course will be evaluated at the end of the semester for 50 marks (record: 15 marks and viva-voce: 35 marks) along with laboratory end examinations.

**The following is schedule for conduction of Skill Oriented Courses:**

| S.No. | Section | Course Name | From Date | To Date |
|---|---|---|---|---|
| 1 | A&B | Advanced Python Programming | 24/04/2023 | 28/04/2023 |

**Schedule of the Skill Course**

| Date & Day | Topic to be delivered | Name of the Faculty | Venue |
|---|---|---|---|
| 24.04.2023 (Monday) | Regular Expressions & Database Connectivity | Dr. K Shirin Bhanu, Assoc.Professor, CSE DEPT | Yellow Seminar Hall |
| 25.04.2023 (Tuesday) | GUI applications using tkinter module | Mr. R L Phani Kumar, Sr.Asst. Professor, CSE DEPT | |
| 26.04.2023(Wednesday) | Working with Arrays using Numpy | Mr. Y V R P S Sastry, Research Scholar -NITANP | |
| 27.04.2023 (Thursday) | Data Analysis using Pandas | Dr. V Venkateswara Rao, Professor, CSE DEPT | |
| 28.04.2023 (Friday) | Data Visualization & Case Studies | Mr. M S Kumar Reddy, Asst.Professor, CSE DEPT | |

**Course Outcomes:**

- Develop Python Programs using regular expressions and Database. (K3)
- Develop programs using GUI (K3)
- Construct programs using Numpy Arrays (K3)
- Develop python programs using pandas (K3)
- Develop charts using matplotlib (K3)

**Note:**

Attendance is Mandatory.

**Students should bring their own Laptops.**

**Head of the Department**

Head of the Department
Dept. of Computer Science & Engineering
Sri Vasavi Engineering College
TADEPALLIGUDEM-534 101

**Copy to:**

- Principal
- IV SEM CSE-A & B Faculty and Students

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PEDATADEPALLI, TADEPALLIGUDEM-534 101, W.G.Dist.
Department of Computer Science & Engineering (Accredited by NBA)


**Ref. No:** SVEC/CSE/2022-23/II Sem/Circular/81 **Date:** 17/04/2023

## CIRCULAR

As per **V20 regulations,** the **Skill Oriented Course-2** shall be conducted for the students of **B.Tech IV SEM**. In this regard, students are requested to follow the below mentioned guidelines:

**Evaluation of skill oriented course:**

The course will be evaluated at the end of the semester for 50 marks (record: 15 marks and viva-voce: 35 marks) along with laboratory end examinations.

**The following is schedule for conduction of Skill Oriented Courses:**

| S.No. | Section | Course Name | From Date | To Date |
|---|---|---|---|---|
| 1 | C&D | Advanced Python Programming | 25/04/2023 | 29/04/2023 |

**Schedule of the Skill Course**

| Date & Day | Topic to be delivered | Name of the Faculty | Venue |
|---|---|---|---|
| 25.04.2023 (Tuesday) | Regular Expressions & Database Connectivity | Dr. K Shirin Bhanu, Assoc.Professor, CSE DEPT | **Orange Seminar Hall** |
| 26.04.2023(Wednesday) | GUI applications using tkinter module | Mr. R L Phani Kumar, Sr.Asst. Professor, CSE DEPT | |
| 27.04.2023 (Thursday) | Working with Arrays using Numpy | Mr. Y V R P S Sastry, Research Scholar -NITANP | |
| 28.04.2023 (Friday) | Data Analysis using Pandas | Dr. V Venkateswara Rao, Professor, CSE DEPT | |
| 29.04.2023 (Saturday) | Data Visualization & Case Studies | Mr. M S Kumar Reddy, Asst.Professor, CSE DEPT | |

**Course Outcomes:**

- Develop Python Programs using regular expressions and Database. (K3)
- Develop programs using GUI (K3)
- Construct programs using Numpy Arrays (K3)
- Develop python programs using pandas (K3)
- Develop charts using matplotlib (K3)

**Note:**

- Attendance is Mandatory.
- **Students should bring their own Laptops.**

**Head of the Department**

Head of the Department
Dept. of Computer Science & Engineering
Sri Vasavi Engineering College
TADEPALLIGUDEM-534 101

**Copy to:**

- Principal
- IV SEM CSE-C & D Faculty and Students

## Advanced Python Programming

**Course Outcomes: After Successful completion of the Course, the student will be able to:**

| | |
|---|---|
| **CO1:** Develop Python Programs using regular expressions and Database. | [K3] |
| **CO2:** Develop programs using GUI. | [K3] |
| **CO3:** Construct programs using Numpy Arrays. | [K3] |
| **CO4:** Develop python programs using pandas. | [K3] |
| **CO5:** Develop charts using matplotlib. | [K3] |

**Topics Covered:**

1. Regular Expressions & Database Connectivity
2. GUI applications using tkinter module
3. Working with Arrays using Numpy
4. Data Analysis using Pandas
5. Data Visualization & Case Studies

**Ref. No:** SVEC/CSE/2022-23/II Sem/Circular/57 **Date:** 19/01/2023

## CIRCULAR

As per **V20 regulations,** the **Skill Oriented Course-IV(V20SOC04)** shall be conducted for the students of **VI SEM B.Tech**. In this regard, students are requested to follow the below mentioned guidelines:

**Evaluation of skill oriented course:**

The course will be evaluated at the end of the semester for **50 marks** (**record:** 15 marks and **viva-voce:** 35 marks) along with laboratory end examinations.

**The following is schedule for conduction of Skill Oriented Courses:**

| S.No. | Section | Course Name | From Date | To Date | No. Of Days |
|---|---|---|---|---|---|
| 1 | CSE-A,B,C D & CST | ReactJS | 23/01/2023 (Monday) | 06/02/2023 (Monday) | 12 Days |

**Note:**

7. Attendance is Mandatory.
8. Students should bring their **own Laptops**.(If Required)

Head of the Department

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# ReatJS

**Course Outcomes: After successful completion of the Course, the student will be able to:**

**CO1:** Discuss fundamentals of HTML. [K2]
**CO2:** Discuss CSS. [K2]
**CO3:** Discuss Javascript. [K2]
**CO4:** Discuss ReactJS. [K2]
**CO5:** Develop an application using REACTJS. [K3]

## Topics Covered:

**SECTION 1:** WHAT IS REACT JS?
**SECTION 2:** OVERVIEW OF JSX
**SECTION 3:** REACT JS ENVIRONMENT SETUPS

**Real-time Practical's**

- NPM Installation by locally and Globally
- Create a Basic App with React JS and other Supported NPM

**SECTION 4:** A REAL-TIME APPLICATION BY USING REACT JS

**Real-time Practical's**

- Create a Small React Module
- Use All the states in the created Application.

**SECTION 5:** REACT JS FORMS and UI

**Real-time Practical's**

- Create a React Form.
- Client-side form validation.
- Applying form components.
- Submit and Rest the form.

**SECTION 6:** REACT JS COMPONENT LIFE CYCLES OVERVIEW

**Real-time Practical's**

- Applying Different Life cycles in the Application.
- When to choose Appropriate lifecycles.

**SECTION 7:** ROUTING IN REACT JS AND OTHER JS CONCEPTS

**Real-time Practical's**

- Create a Single Page Application.
- Applying Routing.
- Dynamically render the components based on the url.

**SECTION 8:** EVENT HANDLING IN JSX

**Real-time Practical's**

- Communicate Data between components.
- Applying all lists of events.

**SECTION 9:** HOW TO WRITE STYLES IN REACT JS?

**Real-time Practical's**

- Styling the application using styled component
- How to use Animations in the Application.

**SECTION 10:** REACT ROUTER WITH NAVIGATION

**SECTION 11:** FLUX , REDUX OVERVIEW

**Real-time Practical's**

- Redux application Development with Real-time Project

**SECTION 12:** UNIT TESTING OVERVIEW
**SECTION 13:** INTEGRATION WITH OTHER LIBRARIES
**SECTION 14:**REACT SERVER INTEGRATION & DEPLOYMENT
**SECTION 15:** HOOKS
**SECTION 16:** CODE SPLITTING
**SECTION 17:** ISOMORPHIC REACT
**SECTION 18:** TESTING COMPONENT
**SECTION 19:** EPILOGUE
**SECTION 20:** NEW FEATURES OF REACT 16
**SECTION 21:** WEBPACK PRIMER AND ISOMORPHIC REACT
**SECTION 22:** FETCH DATA USING GRAPHQL

**Ref. No:** SVEC/CSE/2022-23/I Sem/Circular/32 **Date:** 01/11/2022

## CIRCULAR

As per **V20 regulations,** the **Skill Oriented Course-III** shall be conducted for the students of **V SEM B.Tech**. In this regard, students are requested to follow the below mentioned guidelines:

**Evaluation of skill oriented course:**

The course will be evaluated at the end of the semester for **50 marks** (**record:** 15 marks and **viva-voce:** 35 marks) along with laboratory end examinations.

**The following is schedule for conduction of Skill Oriented Courses:**

| S.No. | Section | Course Name | From Date | To Date |
|---|---|---|---|---|
| 1 | CSE-A,B,C D & CST | Verbal & Soft Skills | 03/11/2022 (Thursday) | 12/11/2022 (Saturday) |

**Note:**

5. Attendance is Mandatory.
6. Students should bring their **own Laptops**.(If Required)

Head of the Department

Head of the Department
Dept. of Computer Science & Engineering
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**Copy to:**

- Principal
- V SEM CSE & CST Faculty and Students

## Verbal & Soft Skills

**Course Outcomes: After successful completion of the Course, the student will be able to:**

**CO1:** Illustrate the Speaking skills and Question Forms. [K3]
**CO2:** Apply the concepts of critical and analytical reading skills. [K3]
**CO3:** Develop the Interview and Professional skills. [K3]

**Topics Covered:**

| | |
|---|---|
| 1 | Phonetics |
| 2 | Intonation |
| 3 | Speaking Skills |
| 4 | Reading Comprehension |
| 5 | Question Forms |
| 6 | Tenses |
| 7 | Articles |
| 8 | Prepositions |
| 9 | Sentences correction and Construction |
| 10 | Direct and Indirect Speech |
| 11 | Modals |
| 12 | Comprehension Ordering |
| 13 | Parts of Speech |
| 14 | Active Voice and Passive Voice |
| 15 | Idioms and Phrasal Verbs |
| 16 | Vocabulary |
| 17 | Resume |
| 18 | Interview Skills |
| 19 | Dressing Sense |

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**Department of Computer Science & Technology**

**Ref. No:** SVEC/CSE/2022-23/II Sem/Circular/70 **Date:** 11/03/2023

# CIRCULAR

As per **V20 regulations,** the **Skill Oriented Course-2**(AWS Academy Solutions Architect) shall be conducted for the students of **IV SEM B.Tech CST** for **42 hours duration**. In this regard, the following faculty members are allocated as Course Instructors from **13/03/2023 (Monday) to 18/03/2023 (Saturday)** for **B.Tech CST Sections**.

| S.No. | Section | Course Instructors |
|---|---|---|
| 1. | CST | Mrs. D S L Manikanteswari, Asst. Professor , CSE DEPT & Mrs. M S Radha Mangamani, Asst. Professor , CSE DEPT |

**Head of the Department**

Head of the Department
Dept. of Computer Science & Engineering
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-Principal

# Skill Oriented Course-II

| S.No. | Sem & Section | Title | Date (From -to) |
|---|---|---|---|
| 1. | IV SEM CST | AWS Academy Solutions Architect | 13/03/2023 to 18/03/2023 |

# AWS Academy Solutions Architect

**Course Outcomes: After Successful completion of the Course, the student will be able to:**

| | |
|---|---|
| **CO1:** Discuss architecture of AWS. | [K2] |
| **CO2:** Illustrate VPC. | [K3] |
| **CO3:**Describe storage concepts. | [K2] |
| **CO4:** Explain database connectivity. | [K2] |

## Topics Covered:

**Module 1 -** Welcome to AWS Academy Cloud Architecting

**Module 2 -** Introducing Cloud Architecting

**Module 3 -** Adding a Storage Layer

**Module 4 -** Adding a Compute Layer

**Module 5 -** Adding a Database Layer

**Module 6 -** Creating a Networking Environment

**Module 7 -** Connecting Networks

**Module 8 -** Securing User and Application Access

**Module 9 -** Implementing Elasticity, High Availability and Monitoring

**Module 10 -** Automating Your Architecture

**Module 11 -** Caching Content

**Module 12 -** Building Decoupled Architectures

**Module 13 -** Building Microservices and Serverless Architectures

**Module 14 -** Planning for Disaster

**Module 15 -** Bridging to Certification

# Academic Year: 2022-23

## Skill Oriented Course-I

| S.No. | Sem & Section | Title | Date (From -to) |
|---|---|---|---|
| 1. | III SEM CST | DJango using Python | 26/12/2022 to 31/12/2022 |

# Web Development Using Django

**Course Outcomes: After Successful completion of the Course, the student will be able to:**

| | |
|---|---|
| **CO1:** Explain oops concepts. | [K2] |
| **CO2:**Discuss Django. | [K2] |
| **CO3:**Describe database connectivity. | [K2] |

## Topics Covered:

**1. Introduction to Python**

- **a.** Object-Oriented Programming(Classes,Objects)
- b. Constructors
- c. Inheritance
- d. Python Packages and modules using oop's.

2. **Django** :

- a. Introduction to Django
- b. MVC, MVT,Architecture of Django
- c. Django Installation
- 3. Project Creation, APP creation and use of admin app
- 4. URL mapping(creation),Dynamic URL mapping,views
- 5. Interface between controller(urls.py & views.py) files
- 6. Http Request and Responses.
- 7. Django Templates
- 8. Providing an interface between controller and templates
- 9. Static file handling
- 10. Data rendering from HTML to views and then views to HTML with example.
- 11. Model creation
- 12. Migrations, ORM
- 13. Model Queries(Django shell)
- 14. Super user Creation(admin part)
- 15. Roles of the superuser.
- 16. Crud operations, Messages generation
- 17. Form Validations
- 18. Database Connectivity and Database Migrations with MYSQL
- 19. Mail Sending
- 20. File Uploading
- 21. User Registration & User Authentication

## Skill Oriented Course-IV

| S.No. | Sem & Section | Title | Date (From -to) |
|---|---|---|---|
| 1. | VI SEM CST | ReatJS | 23/01/2023 to 06/02/2023 |

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**Department of Computer Science & Technology**

**Ref. No:** SVEC/CSE/2022-23/II Sem/Circular/57 **Date:** 19/01/2023

**CIRCULAR**

As per **V20 regulations,** the **Skill Oriented Course-IV(V20SOC04)** shall be conducted for the students of **VI SEM B.Tech**. In this regard, students are requested to follow the below mentioned guidelines:

**Evaluation of skill oriented course:**

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**The following is schedule for conduction of Skill Oriented Courses:**

| S.No. | Section | Course Name | From Date | To Date | No. Of Days |
|---|---|---|---|---|---|
| 1 | CSE-A,B,C D & CST | ReactJS | 23/01/2023 (Monday) | 06/02/2023 (Monday) | 12 Days |

**Note:**

- Attendance is Mandatory.
- Students should bring their **own Laptops**.(If Required)

Head of the Department

Head of the Department
Dept. of Computer Science & Engineering
Sri Vasavi Engineering College
TADEPALLIGUDEM-534 101

**Copy to:**

- Principal
- VI SEM CSE & CST Faculty and Students

# ReatJS

**Course Outcomes: After successful completion of the course student will be able to learn:**

**CO1:** Discuss fundamentals of HTML . [K2]
**CO2:** Discuss CSS. [K2]
**CO3:** Discuss Javascript. [K2]
**CO4:** Discuss ReactJS. [K2]
**CO5:** Develop an application using REACTJS. [K3]

## Topics Covered:

**SECTION 1:** WHAT IS REACT JS?
**SECTION 2:** OVERVIEW OF JSX
**SECTION 3:** REACT JS ENVIRONMENT SETUPS

**Real-time Practical's**

- NPM Installation by locally and Globally
- Create a Basic App with React JS and other Supported NPM

**SECTION 4:** A REAL-TIME APPLICATION BY USING REACT JS

**Real-time Practical's**

- Create a Small React Module
- Use All the states in the created Application.

**SECTION 5:** REACT JS FORMS and UI

**Real-time Practical's**

- Create a React Form.
- Client-side form validation.
- Applying form components.
- Submit and Rest the form.

**SECTION 6:** REACT JS COMPONENT LIFE CYCLES OVERVIEW

**Real-time Practical's**

- Applying Different Life cycles in the Application.
- When to choose Appropriate lifecycles.

**SECTION 7:** ROUTING IN REACT JS AND OTHER JS CONCEPTS

**Real-time Practical's**

- Create a Single Page Application.
- Applying Routing.
- Dynamically render the components based on the url.

**SECTION 8:** EVENT HANDLING IN JSX

**Real-time Practical's**

- Communicate Data between components.
- Applying all lists of events.

**SECTION 9:** HOW TO WRITE STYLES IN REACT JS?

**Real-time Practical's**

- Styling the application using styled component
- How to use Animations in the Application.

**SECTION 10:** REACT ROUTER WITH NAVIGATION
**SECTION 11:** FLUX , REDUX OVERVIEW

**Real-time Practical's**

- Redux application Development with Real-time Project

**SECTION 12:** UNIT TESTING OVERVIEW
**SECTION 13:** INTEGRATION WITH OTHER LIBRARIES
**SECTION 14:**REACT SERVER INTEGRATION & DEPLOYMENT
**SECTION 15:** HOOKS

**SECTION 16:** CODE SPLITTING
**SECTION 17:** ISOMORPHIC REACT
**SECTION 18:** TESTING COMPONENT
**SECTION 19:** EPILOGUE
**SECTION 20:** NEW FEATURES OF REACT 16
**SECTION 21:** WEBPACK PRIMER AND ISOMORPHIC REACT
**SECTION 22:** FETCH DATA USING GRAPHQL

## Skill Oriented Course-III

| S.No. | Sem & Section | Title | Date (From -to) |
|---|---|---|---|
| 1. | V SEM CST | Verbal & Soft Skills | 03/11/2022 to 12/11/2022 |

**SRI VASAVI ENGINEERING COLLEGE (AUTONOMOUS)**
PEDATADEPALLI, TADEPALLIGUDEM-534 101, W.G.Dist.
Department of Computer Science & Technology

**Ref. No:** SVEC/CSE/2022-23/I Sem/Circular/32 **Date:** 01/11/2022

## CIRCULAR

As per **V20 regulations,** the **Skill Oriented Course-III** shall be conducted for the students of **V SEM B.Tech**. In this regard, students are requested to follow the below mentioned guidelines:

**Evaluation of skill oriented course:**

The course will be evaluated at the end of the semester for **50 marks** (**record:** 15 marks and **viva-voce:** 35 marks) along with laboratory end examinations.

**The following is schedule for conduction of Skill Oriented Courses:**

| S.No. | Section | Course Name | From Date | To Date |
|---|---|---|---|---|
| 1 | CSE-A,B,C D & CST | Verbal & Soft Skills | 03/11/2022 (Thursday) | 12/11/2022 (Saturday) |

**Note:**

1. Attendance is Mandatory.
2. Students should bring their **own Laptops**.(If Required)

Head of the Department

Head of the Department
Dept. of Computer Science & Engineering
Sri Vasavi Engineering College
TADEPALLIGUDEM-534 101

**Copy to:**

1. Principal
2. V SEM CSE & CST Faculty and Students

# Verbal & Soft Skills

**Course Outcomes: After successful completion of the Course, the student will be able to:**

**CO1:** Illustrate the Speaking skills and Question Forms. [K3]
**CO2:** Apply the concepts of critical and analytical reading skills. [K3]
**CO3:** Develop the Interview and Professional skills. [K3]

**Topics Covered:**

| | |
|---|---|
| 1 | Phonetics |
| 2 | Intonation |
| 3 | Speaking Skills |
| 4 | Reading Comprehension |
| 5 | Question Forms |
| 6 | Tenses |
| 7 | Articles |
| 8 | Prepositions |
| 9 | Sentences correction and Construction |
| 10 | Direct and Indirect Speech |
| 11 | Modals |
| 12 | Comprehension Ordering |
| 13 | Parts of Speech |
| 14 | Active Voice and Passive Voice |
| 15 | Idioms and Phrasal Verbs |
| 16 | Vocabulary |
| 17 | Resume |
| 18 | Interview Skills |
| 19 | Dressing Sense |

**SRI VASAVI ENGINEERING COLLEGE (AUTONOMOUS)**
PEDATADEPALLI, TADEPALLIGUDEM-534 101, W.G.Dist.
Department of Computer Science & Engineering (Accredited by NBA)

**Ref. No:** SVEC/CSE/2022-23/I SEM/Circular/47 **Date:** 05/12/2022

## CIRCULAR

As per **V20 regulations,** the **Skill Oriented Course-1** shall be conducted for the students of **III SEM B.Tech** for **42 hours duration**. In this regard, students are requested to follow the below mentioned guidelines:

**Evaluation of skill oriented course:**

The course will be evaluated at the end of the semester for **50 marks** (**record:** 15 marks and **viva-voce:** 35 marks) along with laboratory end examinations.

**The following is schedule for conduction of Skill Oriented Courses:**

| S.No. | Section | Course Name | From Date | To Date |
|---|---|---|---|---|
| 1 | CAI & AIM | AWS Cloud Computing | 12/12/2022 (Monday) | 17/12/2022 (Saturday) |

**Note:**

1. Attendance is Mandatory.
2. Students should bring their **own Laptops**.

Head of the Department

Head of the Department
Dept. of Computer Science & Engineering
Sri Vasavi Engineering College
TADEPALLIGUDEM-534 101

**Copy to:**

1. Principal
2. III SEM CAI & AIM Faculty and Students

**Ref. No:** SVEC/CSE/2022-23/II Sem/Circular/66 **Date:** 24/02/2023

## CIRCULAR

As per **V20 regulations,** the **Skill Oriented Course-2** shall be conducted for the students of **IV SEM B.Tech CAI & AIM** for **42 hours duration**. In this regard, students are requested to follow the below mentioned guidelines:

**Evaluation of skill oriented course:**

The course will be evaluated at the end of the semester for **50 marks** (**record:** 15 marks and **viva-voce:** 35 marks) along with laboratory end examinations.

**The following is schedule for conduction of Skill Oriented Courses:**

| S.No. | Section | Course Name | From Date | To Date |
|---|---|---|---|---|
| 1 | CAI &AIM | AWS Academy Solutions Architect | 27/02/2023 (Monday) | 04/03/2023 (Saturday) |

**Venue:** Orange Seminar Hall (G Block Ground Floor).

**Note:**

1. Attendance is Mandatory.
2. Students should bring their **own Laptops**.

Head of the Department

Head of the Department
Dept. of Computer Science & Engineering
Sri Vasavi Engineering College
TADEPALLIGUDEM-534 101

**Copy to:**

-Principal

- IV SEM CAI & AIM Faculty and Students

# Academic Year: 2022-23

## Skill Oriented Course-I

**Number of Students Registered: 70**

**Number of Students Presented: 69**

| S.No. | Sem & Section | Title | Date (From -to) |
|---|---|---|---|
| 1. | III SEM CAI | AWS Cloud Computing Foundations | 12/12/2022 to 17/12/2022 |

## Skill Oriented Course-II

**Number of Students Registered: 70**

**Number of Students Presented: 70**

| S.No. | Sem & Section | Title | Date (From -to) |
|---|---|---|---|
| 1. | IV SEM CST | AWS Academy Solutions Architect | 27/02/2023 to 04/03/2023 |

# AWS-Cloud Computing Foundations

## Topics Covered:

**Exercise 1**. Introduction to Cloud Computing & Account Registration in AWS
**Exercise 2**. AWS Global Architecture
**Exercise 3**. Demo on Servers, How to launch instances(Servers) in Cloud.
**Exercise 4.** AWS Security Groups
**Exercise 5**. AMIs and Volumes in AWS
**Exercise 6**. To Configure Amazon Virtual Private Cloud (VPC)
- To Create your own VPC
- To Create public subnet
- To Create private subnet
- Create an Internet gateway and attach to your VPC
- Create a Public Routing Table, associate subnet and add routing rules
- Create Private Routing Table, associate subnet and add routing rules
- To Connect to Public subnet instance
- To Connect to Private subnet instance
- To Connect linux instance in private subnet
- To Connect linux instance in public subnet

**Exercise 7**. VPC Peering
**Exercise 8.** NAT Gateway
**Exercise 9**. To Assign Elastic IP address
**Exercise 10**. Application Deployment in Cloud using EC2
**Exercise 11**. Load balancer concepts on Cloud
**Exercise 12**. Storage Concepts
- EC2 Store
- Instance Store
- EBS(Elastic Block Store)
- S3(Simple Storage Service)
- NFS/EFS
- Glacier

**Exercise 13**. Static Website Hosting using WINSCP-Tool
**Exercise 14**. Database creation using RDS

**Course Outcomes: After Successful completion of the Course, the student will be able to:**

**CO1: Differentiate between traditional on-premises infrastructure and cloud computing. [K2]**
**CO2: Interpret how these services cater to different computing needs. [K3]**
**CO3: Develop of storage solutions based on use cases. [K3]**
**CO4: Interpret compliance in the AWS environment. [K3]**
**CO5: Develop security policies for resource access.**
**[K3]**

# AWS Academy Solutions Architect

## Topics Covered:

**Module 1 -** Welcome to AWS Academy Cloud Architecting

**Module 2 -** Introducing Cloud Architecting

**Module 3 -** Adding a Storage Layer

**Module 4 -** Adding a Compute Layer

**Module 5 -** Adding a Database Layer

**Module 6 -** Creating a Networking Environment

**Module 7 -** Connecting Networks

**Module 8 -** Securing User and Application Access

**Module 9 -** Implementing Elasticity, High Availability and Monitoring

**Module 10 -** Automating Your Architecture

**Module 11 -** Caching Content

**Module 12 -** Building Decoupled Architectures

**Module 13 -** Building Microservices and Serverless Architectures

**Module 14 -** Planning for Disaster

**Module 15 -** Bridging to Certification

**Course Outcomes: After Successful completion of the Course, the student will be able to:**

**CO1: Apply best practices for designing scalable, reliable, and cost-effective architectures on AWS. [K3]**
**CO2 Interpret AWS pricing models and utilizing cost-effective services [K3]**
**CO3: Construct architectures that ensure high availability and fault tolerance. [K3]**
**CO4: Interpret with AWS databases, caching, and content delivery services. [K3]**
**CO5: Develop auto-scaling and load balancing solutions. [K3]**