

**AICTE TRAINING AND LEARNING
(ATAL) ACADEMY**



SPONSORED

Faculty Development Programme
on
**"ROBUST AND SCALABLE WEB
APPLICATION DEVELOPMENT
USING PYTHON"**

September 21st – 25th, 2020

Organized by

Department of Information Technology



**SREE VIDYANIKETHAN
ENGINEERING COLLEGE
(AUTONOMOUS)**

Sree Sainath Nagar, Tirupati
Andhra Pradesh – 517102, India
Ph: +(91) 877-2236711-14 Fax: 0877-2236717
(<https://www.svec.education/>)

Chief Patrons

Dr. M. Mohan Babu
Chairman, SVET

Sri. Vishnu Manchu
CEO, SVET

Patron

Prof. L. Venugopal Reddy
Advisor cum Director, SVET

Advisors

Dr. P. C. Krishnamachary
Principal, SVEC

Dr. I. Sudarsan Kumar
Director (Q&D), SVET

Head of the Department

Dr. K. Ramani
Professor, Information Technology

Coordinator

Dr. V. Lokanadham Naidu
Assistant Professor (SL)
Department of Information Technology

Co-coordinator

Mr. Mahendra M
Assistant Professor
Department of Information Technology

Organizing Committee

Faculty of Information Technology

Contact Details

Dr. V. Lokanadham Naidu
Mobile No.: +91 9885985851,
e-Mail id.: vlnaidu1982@gmail.com

Mr. Mahendra M
Mobile No.: +91 9949192616
e-Mail id.: mahendrame405@gmail.com

College Profile:

Sree Vidyanikethan Engineering College (Autonomous) was established in 1996 by Sree Vidyanikethan Educational Trust under the stewardship of **Dr. M. Mohan Babu**, renowned Film Artiste and Former Member of Parliament (Rajya Sabha). The College was established in the backward region of Rayalaseema to serve the cause of technical education with an initial intake of 180. The intake has been increased exponentially to 2112 in 2019-20.

The College now offers 11 B.Tech programs; 4 M.Tech programs; MCA Program; and 3 Doctoral Programs. AICTE has also accorded permission for 2nd Shift Polytechnic from the academic year 2009-10 and presently 5 Diploma courses are being offered.

Today, Sree Vidyanikethan Engineering College is one of the largest, most admired and sought after institutions in Andhra Pradesh. The College is approved by AICTE and affiliated to JNTUA, Ananthapuramu. The College has been accorded Autonomous Status by the UGC, New Delhi in 2010-11 which was extended for six years (from 2016-17 to 2021-22).

The College is known for its quality initiatives which are amply reflected in accreditations by National Board of Accreditation (NBA) for UG & PG programs, National Assessment and Accreditation Council (NAAC) with 'A' Grade as one of the best performing institutions in India. The College has successfully implemented TEQIP-II under Sub-component 1.1: Strengthening Institutions to improve Learning Outcomes and Employability of Graduates, funded by the Ministry of HRD, Govt. of India.

The College has been accorded "UGC-Colleges with Potential for Excellence" status under CPE Scheme by UGC, New Delhi. It also has been accorded 'PLATINUM' category by CII-AICTE Survey; and was conferred with 'A' Grade by Department of Higher Education, Andhra Pradesh. The college participated in National Institution Ranking Frame Work (NIRF), 2020 and awarded the rank of 184. SIEMENS and APSSDC has established 6 State-of-the art laboratories.

Route: 15 km from the temple town of Tirupati on Tirupati - Madanapalle National Highway No.205.

Courses offered:

The college offers B. Tech Programs in CSE, CSE (DS), CSE (AI), IT, ECE, EEE, EIE, CSBS, CSSE, Civil, MECH. The college also offers M. Tech. in VLSI, CS, EPS, PED & MCA along with PhD programs in ECE, EEE & CS.

About Department of IT:

The Department of Information Technology (IT) was established in the year 1997 with an intake of 30 in B.Tech (IT) program. The intake has been increased to 60 during the year 1998-1999 and further increased to 120 during the year 2000-2001. The Department is headed by Dr. K. Ramani, who has 21 years of teaching experience and is supported by well qualified faculty.

About FDP:

Python has become one of the world's most popular programming languages due to its quick prototyping, portability, rich libraries, asynchronous coding, and visualization. It has multiple paradigms and supports a large number of programming styles including procedural, object-oriented, and modularity. This makes Python a great coding language for startups and help developers to work easier and more productive. Moreover, Python's rich libraries with pre-written code help to reduce development time. In addition to that, Python libraries allow developers to process data that is required for Machine Learning (ML), Deep Learning (DL) and Artificial Intelligence (AI) applications.

Python is a well-liked coding language for enterprise web applications due to its smooth integration with other traditional programming languages such as Java, PHP, and .NET. Python is a suitable language to develop web applications from simple to complex. It is widely used in different domains such as travel, healthcare, transportation, finance for web application development, software testing, and scripting. The top companies like Instagram, Spotify, and Disqus are using Python in their Technology Stack.

The main objective of this FDP is to provide insights and hands-on training for faculty on Python Programming to write server-side scripting; Python template engines to render responses from the server, Python web application frameworks to deploy applications for processing the user request and response, and data management to develop robust and scalable web applications.

Outcomes of FDP:

- ❖ Gain knowledge on Python Programming, Python template engines and frameworks.
- ❖ Develop robust and scalable web applications using Python frameworks.
- ❖ Train students by conducting hands-on sessions on web application development using Python and make students industry ready.

Topics to be Covered:

1. Introduction to Python Programming:
 - Basics of Python
 - Data Structures such as Lists, Tuples and Dictionaries
 - Functions, Files and Exception handling
 - OOP using Python
2. Overview of HTML5, CSS3, JavaScript and AJAX.
3. Introduction to Python web frameworks:
 - Introduction to Flask web framework
 - Flask Installation and environment setup.
 - Creation of Flask application structure and files
 - Develop/Deploy web applications using Flask.
4. Jinja2 - Template engine for Python:
 - Delimiters, expressions, objects, conditional and looping statements.
 - Filters, super blocks, and template inheritance
5. Data management using SQLite/MySQL database.
6. Django web framework
 - Introduction, Models and Databases
 - Handling HTTP Request, forms and templates

Resource Persons:

- Resource persons are invited from the reputed IT industry and institutions.

Eligibility:

- Faculty members of the AICTE approved institutions, Research Scholars, and Industry professional.

General Information:

- No registration Fee.
- Registration must be through ATAL portal (URL: <https://atalacademy.aicte-india.org/>)