### **CHIEF PATRONS**

**Dr. M. Mohan Babu,** Chairman, Padmashri Awardee, SVET **Sri. Vishnu Manchu,** CEO, SVET

### **PATRON**

Prof. L. Venugopal Reddy, Advisor cum Director, SVET

### **ADVISORS**

**Dr. P. Giridhara Reddy,** Director, SVEC **Dr. B. M. Satish,** Principal, SVEC

#### **HEAD OF THE DEPARTMENT**

Dr. K. Ramani, Professor, Information Technology

### **COORDINATOR**

Dr. V. Lokanadham Naidu, Associate Professor, Department of Information Technology

### **CO-COORDINATOR**

Mr. Ch. Sreenu Babu, Assistant Professor, Department of Information Technology

#### ORGANIZING COMMITTEE

Faculty of Information Technology

### **RESOURCE PERSONS**

• Resource persons are invited from the reputed IT industry.

### **ELIGIBILITY**

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

### **GENERAL INFORMATION**

- No registration Fee.
- Registration must be through ATAL portal.

## Contact

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SREE VIDYANIKETHAN ENGINEERING COLLEGE (Autonomous)

Sree Sainath Nagar, Tirupati - 517 102 (A.P.)





# AICTE TRAINING AND LEARNING (ATAL) ACADEMY SPONSORED

Online Faculty Development Programme on

### **MEAN STACK TECHNOLOGIES**

Dates: 21st to 25th September, 2021



### Organized by

Department of Information Technology

SREE VIDYANIKETHAN ENGINEERING COLLEGE (Autonomous)

Sree Sainath Nagar, Tirupati - 517 102 (A.P)

### **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 2382 from the year 2021-22.

The College now offers 15 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, CSSE, IT, CSE (AI), CSE (DS), CSBS, CSE (Cyber Security), CSE (AI & ML), Computer Science and Design, CSE (IoT), ECE, CE, ME, EEE and EIE. The college also offers M. Tech. in VLSI, Computer Science, Electrical Power Systems and Power Electronics and Drives & MCA along with Ph.D programs in ECE, EEE & CSE.

### **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 also offers B.Tech in Computer Science and Design and B. Tech in Computer Science and Engineering (IoT) Programs from the academic year 2021-22. The Department is headed by Dr. K. Ramani, who has 22 years of teaching experience and is supported by well qualified faculty.

### **ABOUT FDP**

In the era of modern web application development, Full Stack Developers are the versatile and multi-talented professionals who are well-versed in both front-end (client software) technologies (HTML, CSS, JavaScript, jQuery, Angular, React, etc.), back-end (server software) technologies (PHP, Java, Python, .Net, Node.js, etc.) and the database.

Nowadays, there is a high demand for full stack web developers at industry ranging from the startups to the multinational companies. Moreover, the companies are looking for the full stack developers than the developers who have expertise in one particular technology or partial stack developers for reducing the development time, the technical cost of team communication, saving operational cost and gaining the enormous profits. In addition, the industry is looking for a job-ready force to carry out the product development single-handedly.

At present, universities and autonomous colleges have introduced the courses on full stack technologies include **MEAN** [MongoDB – Express – AngularJS - Node.js], **MERN** [MongoDB – Express – React - Node.js], **LAMP** [Linux - Apache - MySQL - PHP], **Django** [Python – Django - MySQL], and **Ruby on Rails** [Ruby - SQLite – Rails] in modern curriculum for enabling the students on the various full stack technologies as well as making the job-ready force. Thus, training the faculty on full stack technologies is helpful to make the students industry ready.

### **OBJECTIVES OF FDP**

- To provide insights and hands-on training for faculty on JavaScript based MEAN stack (Open source) technologies.
- To demonstrate the various features of AngularJS framework for front-end development.
- To develop the back-end code using Node.js runtime environment and build web applications using ExpressJS light-weight web framework.
- To familiarize the document-oriented database MongoDB for the data management.

### **OUTCOMES OF FDP**

- Gain knowledge on MEAN stack technologies.
- Design and develop scalable web applications rapidly using the JavaScript based MEAN stack technologies.
- Develop open source and user-friendly web applications using a single language JavaScript.
- Conduct hands-on training for students on MEAN stack technologies to make them industry ready.

### **TOPICS TO BE COVERED**

- Overview of HTML5, CSS3 and JavaScript
- AngularJS
  - Introduction, Expressions, Modules and Directives
  - Model, Data Binding, Controllers, Filters, HTTP
  - Templates, Events, Forms, Validation
  - o Components, Includes, Animations, Routing

- Node. js
- ExpressJS
- MongoDB Concepts and operations