

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



SPONSORED

Faculty Development Programme
on
**“GREEN TECHNOLOGY
&
SUSTAINABILITY ENGINEERING”**

February 15th – 19th, 2021

Organized by

**Department of Electrical and
Electronics Engineering**



**SREE VIDYANIKETHAN
ENGINEERING COLLEGE
(AUTONOMOUS)**

Sree Sainath Nagar, Tirupati
Andhra Pradesh – 517102, India
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(<https://www.svec.education/>)

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Chairman, SVET

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CEO, SVET

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Advisor cum Director, SVET

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Director (Q&D), SVET

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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 EEE:

Electrical & Electronics Engineering department was established in the year 1996 offering B.Tech. program in Electrical and Electronics Engineering (EEE) with an intake of 60 in B.Tech, followed by an increase to 120 in the year 2007, 180 and 240 in the years 2012 and 2014 respectively. The department also offers M.Tech. Programs with specialization in Electrical Power Systems (EPS) and Power Electronics and Drives (PED) with an intake of 36 and 18 respectively. The B.Tech. (EEE) and M.Tech. (EPS) programs were accredited by NBA. In addition, the department has a Research center recognized by the affiliating university where research scholars work Full-Time and Part-Time. The department has strong pool of faculty with 23 PhDs. The department houses well equipped laboratories, while the short-term training programs, seminars, workshops, guest lectures by experts and student fests create better learning scope for

students. The department's student body Electrical Technical Association (ETA) conducts career development programs, Seminars, Quiz, Industrial Visits, Paper Contests, Group Discussions, Guest Lectures, Career Guidance sessions and games to enhance interpersonal and intrapersonal skills of students.

About FDP:

Semiconductor technology has gone through vibrant growth in the last few decades. Its applications are fast growing in industrial, commercial, residential, transportation, utility, aerospace, and military environments. Power Electronics and the automatic control are important in decentralized generation of electric power by innovative wind power plants, photovoltaic cells or in the use of fuel cells. Power electronics plays substantial role in harvesting power from renewable energy sources. The integration of power electronics with renewable energy sources such as solar and wind has a vast potential to meet the energy scarcity This FDP will expose the participants to the recent developments in the area of power electronics converters and variable renewable energy sources.

Outcomes of FDP:

- ❖ Gain knowledge on Power Electronic converters, Renewable Energy system and Grid connected PV system.
- ❖ Develop Power electronic converters for various Renewable Energy System.
- ❖ Train students by conducting hands-on sessions on design of converters and hybrid system and make students industry ready.

Topics to be Covered:

1. Study on Power Electronic (PE) Converters
2. Simulation of Power Electronic (PE) Converters
3. Design methodology for Power converter circuit
4. Power electronics converters and its design
5. High efficient DC/DC converters for renewable energy sources
6. Multiport converters
7. Design steps for solar PV systems
8. Power Electronics Converters for PV systems
9. Power Electronics Converters for Wind Energy Systems
10. Power Electronics Converters for Fuel Energy Systems
11. Research challenges in Grid feeding solar PV inverters
12. Hybrid renewable energy system and Power management strategies
13. Integrated converters for Micro Grid applications
14. Advancements in solar PV inverters

Resource Persons:

- Resource persons are invited from the reputed 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/>)