

Topics to be Covered:

- Mathematical Modelling of various nonlinear process
- Mathematical Modelling of Electric Vehicles
- PID Controllers
- Model Predictive Controllers
- Discrete Controllers
- Robust Controllers
- Fractional order Controllers
- System identification methods
- Design of Hybrid Controllers
- Performance metrics of Controllers
- Case Studies
- Hands on session on Controller design

Resource Persons:

- Eminent faculty from IIT's, NIT's and industry professionals will deliver the lectures for the programme.

Eligibility:

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

General Information:

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

Chief Patrons

Dr. M. Mohan Babu, Chairman, SVET

Sri. Vishnu Manchur, CEO, SVET

Advisors

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

Dr. P. Giridhar Reddy, Director (A&R), SVEC

Dr. B. M. Satish, Principal, SVEC

Dr. T. Nageswara Prasad, Vice Principal, SVEC

Dr. P. Venkatramana, Dean (Academics), SVEC

Head of the Department

Dr. M. S. Sujatha, Professor, Department of EEE

Coordinator

Dr. A. Yasmine Begum, Associate Professor Department of EEE

Co-Coordination

Dr. V. Arun, Associate Professor, Department of EEE

Mr. M. Balaji, Assistant Professor, Department of ECE

Mr. M. Manikandan, Assistant Professor, Department of EEE

Organizing Committee

Faculty of Electrical & Electronics Engineering



AICTE TRAINING AND LEARNING (ATAL) ACADEMY



SPONSORED

Faculty Development Programme on

MATHEMATICAL MODELLING AND CONTROLLER DESIGN FOR NON-LINEAR PROCESS

October 11th – 15th, 2021



Organized by

Department of Electrical and Electronics Engineering

SREE VIDYANIKETHAN ENGINEERING COLLEGE (Autonomous)

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

Contact Details

Dr. A. Yasmine Begum

Mobile No: +91 8142982006

E-Mail id: a.yasminebegum@vidyanikethan.edu

Mr. M. Balaji

Mobile No: +91 9885487830

E-Mail id: balajim@vidyanikethan.edu

College Profile:

- Sree Vidyanikethan Engineering College was established in 1996 with an initial intake of 180 students to serve the cause of technical education in the backward region of Rayalaseema. The intake has increased exponentially to 2106 in 2020-21. 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 located in a sprawling campus of about 30 acres, amidst sylvan surroundings with aesthetically built infrastructure. The College is approved by AICTE and affiliated to JNTU Ananthapuramu. The College has been accorded Autonomous Status by the UGC, New Delhi since 2010-11.
- The College is known for its quality initiatives which is amply reflected in accreditations by National Board of Accreditation (NBA) for UG & PG programmes, National Assessment and Accreditation Council (NAAC) with 'A' Grade and many multinational organizations such as TCS, WIPRO & IBM. The College successfully completed 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 by the following,
 - "UGC-Colleges with Potential for Excellence" status under CPE Scheme by UGC, New Delhi. 'PLATINUM' category by CII-AICTE Survey.
 - 'A' Grade by Department of Higher Education, Andhra Pradesh.
 - Secured 184th Rank in National Institution Ranking Frame Work (NIRF), 2020.
 - SIEMENS established six State-of-the-art t-SDI laboratories.
 - AAAA ratings by careers360.
- The college also selected for establishing AICTE-IDEA (Idea Development, Evaluation & Application) Lab on the campus with a funding of Rs. 1.13 Crores from AICTE, Host institute and Industry on 12th June, 2021.
- The College has a project on "Science Technology and Innovation (STI) Hub" in Chandragiri Mandal, Chittoor District, Andhra Pradesh State is a Science & Technology Project funded by the Science for Equity Empowerment and Development Division, Department of Science and Technology, Ministry of Science and Technology, Govt. of India for the Socioeconomic Development of Scheduled Caste SC and Scheduled Tribe ST Communities for Rs. 3.61 Crores.

Location:

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 (CS), CSE (AI & ML), CSE(IoT), CSD, 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 PhD programs in ECE, EEE & CS.

About Department of EEE:

The Department of Electrical & Electronics Engineering was established in the year 1996 offering B.Tech. Program in Electrical and Electronics Engineering (EEE) with an intake of 60, followed by an increase to 120 in the year 2007, 180 and 240 in the years 2012 and 2014 respectively, besides admission under lateral entry scheme. The B.Tech. (EEE) program is currently being offered with an intake of 210 from the AY 2020-2021. The B.Tech. Program was re-accredited (third cycle of accreditation) by NBA for three years (03.03.2020 to 30.06.2023). The department also offers M.Tech. Programs with specialization in Electrical Power Systems (EPS), Power Electronics and Drives (PED) with an intake of 18 each. The M.Tech. Program in Electrical Power Systems was also accredited by NBA. The affiliating university, JNTUA, Anantapur, has recognized the Department of EEE as Research Centre for offering Ph.D. Program from the academic year 2013-14. Full-time and Part-Time Ph.D. scholars are pursuing Ph.D. under this centre.

The Department houses well equipped Laboratories and a Research Center with state-of-the-art equipment. The department constantly organizes short-term training programs, seminars, workshops, guest lectures making the students competitive enough. 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. The Department is headed by Dr. M.S.Sujatha, who has twenty years of teaching and research experience and is supported by well qualified faculty.

About FDP:

Control theory is an interdisciplinary branch of engineering and mathematics that is concerned with the analysis and synthesis of controller for dynamical systems. The scope of the FDP will range from theoretical aspects to practical applications of nonlinear systems theory, including control, analysis, modelling, and identification of nonlinear systems and related fields. A hands-on control of nonlinear system will take place at the end of the course.

Objectives of FDP:

- To train and update the faculties and research scholars for effective teaching & learning with the state of art information on mathematical modeling and controller design for non-linear process.
- To enhance the understanding of the controller design methodologies.
- To introduce some of the best control design practices followed in the industries.
- To understand the different control design methods and identify the suitable one for the problem statement.
- To introduce some cutting edge research trends in the field of control engineering

Outcomes of FDP:

- Model real time engineering systems.
- Design the controller for nonlinear practical systems.
- Explore the most prominent areas of recent research fields of Non-linear systems modelling and control.