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### **HOW TO REACH SMVEC, PUDUCHERRY?**

The college is situated on the Pondicherry – Villupuram National highway (NH-45A) in Madagadipet, Pondicherry. It is in the midway, 20 Kms from Pondicherry and Villupuram. From Pondicherry to Villupuram, frequent buses are available for every 10 minutes. The nearest Railway Junction is Villupuram (20 Kms)

**Sri Manakula Vinayagar Engineering College**  
Madagadipet, Puducherry – 605 107.  
(0413)- 2641151/2640823 / 2642000, Extn: 2500  
E-mail:smvec@smvec.ac.in

## Registration Form

Name:  
Year:  
Institution Name:  
Contact Address:  
Email:  
Tel. / Cell No. :  
Reg. Category:  
IEEE Student Member: Yes / No  
(If yes enclose photocopy of membership card)  
Membership No. :  
Regn. Fee:  
DD No. :  
Date:  
Bank:  
Note: The Bank DD shall be drawn in favor of 'IEEE Madras Section' Payable at Chennai.  
Date: **Signature of the Applicant**

### **Signature of Head of the Institution/Department**

Complete Registration form along with demand draft to be sent to

**Dr.S.Ganesh kumar, Associate Professor/EEE,**  
Co-ordinator- IEEE One day National Workshop,  
Sri Manakula Vinayagar Engineering College  
Madagadipet, Puducherry – 605 107.  
(0413)- 2641151/2640823 / 2642000, Extn: 2500, **9677624378**  
E-mail: **ganeshphd4u@gmail.com**

## **One Day National Level Workshop on “Embedded System design using PSoC - 4” (11<sup>th</sup> August 2018)**

Organized by

*IEEE Society on Social Implications of  
Technology, Madras Section &  
Sri Manakula Vinayagar Engineering College*



### **Venue**

Department of Electrical and Electronics Engg,  
Sri Manakula Vinayagar Engineering College,  
Puducherry

### About the IEEE

The Institute of Electrical and Electronics Engineers Inc. (IEEE), a nonprofit organization, is the world's leading professional association for the advancement of technology. IEEE offers a wide range of learning, career enhancement, and employment opportunities within the engineering sciences, research and other technology areas.

The goal of these programs are to ensure the growth of skill and knowledge among IEEE members, students of engineering and scientific community. IEEE provides various university and corporate partner programs, online learning resources and certificate programs through its continuing education offerings for students and professionals.

The IEEE has more than 4,23,000 members in 160 countries. The IEEE publishes more than 1,400 leading-edge conference proceedings every year, which are recognized by academia and industry worldwide as the most vital collection of consolidated published papers in electrical engineering, computer science and related fields. Student branches provide an opportunity for student members to begin networking in their areas of interest and future profession. There are nearly 3000 student branches in 100 countries at various educational institutions.

### IEEE Madras Section

IEEE Madras Section came into existence in 1973 and has crossed its silver jubilee year. IEEE Madras Section has an active membership of 2275. The student membership is around 4716. The IEEE Madras Section conducts symposiums, conferences and technical lectures by eminent personalities from several fields.

This section is concerned about the welfare of the students in this part of the country and wants to improve the skill learning process in the Engineering Colleges and Universities. There are 24 societies registered through IEEE Madras section, listed below.

- 1 Aerospace and Electronic Systems (AES)
- 2 Antennas and Propagation Society (APS)
- 3 Computer Society (CS)
- 4 Communications (COMSOC)
- 5 Computational Intelligence Society (CIS)
- 6 Control Systems Society (CSS)
- 7 Engineering in Medicine & Biology Society (EMBS)
- 8 Electron Devices Society (EDS)
- 9 Education Society (ES)
- 10 Electromagnetic Compatibility Society (EMCS)
- 11 Industrial Applications Society (IAS)
- 12 Information Theory Society (ITS)
- 13 Instrumentation and Measurement Society (IMS)
- 14 Microwave Theory and Techniques Society (MTTS)
- 15 Nano Technology Council Society (NTCS)
- 16 Power and Energy Society (PES)
- 17 Power Electronics Society (PELS)
- 18 Product Safety Engineering Society (PSES)
- 19 Professional Communication Society (PCS)
- 20 Photonics Society (PS)
- 21 Robotics and Automation Society (RAS)
- 22 SIPCICOM
- 23 Social Implications of Technology Society (SITS)
- 24 Technology and Engineering Management Society (TEMS)

### Society on Social Implications of Technology (SSIT)

The IEEE Society on Social Implications of Technology (SSIT) is a professional society of the Institute of Electrical and Electronics Engineers (IEEE). The society's Field of Interest is, according to its constitution; The impact of technology (as embodied by the fields of interest of IEEE) on society, including both positive and negative effects, the impact of society on the engineering profession, the history of the societal aspects of electro technology, and professional social and economic responsibility in the practice of engineering and its related technology.

### Embedded system Design, hardware interface and quadcopter concepts:

This course will cover the fundamentals Programmable System on Chip (PSoC) and its applications. Preliminary hardware interface of LED, LCD, BUZZER, and PWM controller for quadcopter. The PWM generator will be implemented using the on-chip PWM module. Candidates will learn the use of the PSoC Creator IDE and configuration of the components on chip.

### Eligibility and essential requirement.

The participants of this workshop should have below pre-requisites Knowledge of Digital Electronics, Linear Integrated Circuits and Microcontroller or Microprocessor architecture. All the Engineering College students and faculties are eligible to participate in this program. Engineering students of 3<sup>rd</sup> and 4<sup>th</sup> year EEE, ECE, CSE, IT and EIE are the most suitable candidates to get the benefit from this workshop.

### Registration Fee

Registration fee of Rs.400/- for IEEE Student members and for non-IEEE student members Rs.500/-. The fee covers course kit and tea. The number of seats are limited to 60. Participants will be enrolled to this workshop on a first-come-first-serve basis.

### Schedule

Programmable system on Chip, workshop session to discuss about the fundamentals and the hardware modules of PSoC 4 architecture, hands on session on PSoC 4 processor, demonstration on various ADC and PWM Controller. This workshop program is scheduled to have, two hours theory and six hours practical session includes Live Demo of PSoC 4 programming, hardware interface and hands on training.

### Important Dates

Last Date for Registration: 07.08.2018  
Date of Selection Intimation: 08.08.2018  
(Intimation through E-mail)

### RESOURCE PERSONS

#### Dr. P A Manoharan

Chairman, IEEE Madras section-2018  
Immediate Past Chairman, Robotics & Automation Society  
Technical Officer C, Research & Innovation Centre,  
DRDO, Ministry Of Defence, IIT Madras Research Park,  
Kanagam Road, Chennai- 600113.

### Mr.R.Navaneethakrishnan M.E, MBA., (Ph.D)

Chairman, IEEE SSIT,  
Executive Committee member – IEEE Robotics & Automation Society, Madras Section, India.  
Assistant professor, ECE, Kumaraguru College of Technology, Coimbatore, India.

### Course Contents

1. Introduction to embedded system and PSoC 4
2. PSoC 4 Architecture
3. PSoC 4 Applications
4. Demo using PSoC Creator
5. Embedded System Design using PSoC 4 development kit: Hands-on session,
  - a. DIGITAL OUTPUT
  - b. DIGITAL INPUT & OUTPUT
  - c. PWM CONTROL
  - d. SERIAL COMMUNICATION
  - e. CAPSENCE
  - f. SEVEN SEGMENT DISPLAY

### About the College

Sri Manakula Vinayagar Engineering College was established in the year 1999. The Institution has been approved by AICTE, New Delhi and affiliated to Pondicherry University. It is the first Institution in Pondicherry State which got ISO 9001:2000 Certification and established the 'Nila Community Radio Station' with the approval of Government of India. It is the first engineering Institution in Puducherry which is accredited by NAAC with 'A' grade and NBA. It is also accredited by the IT giant Tata Consultancy Services (TCS). Within a short span, the Institution has attained an enviable reputation by possessing all the hall marks of premier Institution in pursuit of excellence. We offer 17 courses across 4 streams namely Engineering, IT, Architecture, Management and across 6 degrees like B.Tech, M.Tech, Ph.D (Mechanical Engg), MCA, B.Arch and MBA. The Institution aims at equipping budding professionals with excellent theoretical and practical knowledge. It also takes pride in developing the students with leadership and interpersonal skills and thus shaping them as strategic scholars with competitive spirits who will be capable of delivering their best in the technological world.

### About the EEE Department

It offers under graduate in B.Tech Electrical and Electronics Engineering and post graduate in M.Tech-Power Electronics and Drives with industry required syllabus. It offers Professional and need based continuing education to conduct training Programmes in frontier areas of Electrical Engineering on par with consultancy and technical services to the industry. The Department is considered as a unique centre for promotion of excellence in Electrical Engineering and has been successfully fulfilling its role in the rocketing technologies era. To meet the challenges of the new millennium, we train our students in the areas like Artificial Neural Networks, Fuzzy Logic, Finite Element Analysis, Computer Aided Design of electrical machines, Micro-controllers and Digital Signal Processing, Generation, Transmission and Distribution of power, Power System Operation and Control, Electrical Machines, Power Electronics and their control using computer methods etc.