



Dr. R. SENTHIL

Professor & Head Department of Electronics and Instrumentation Engineering (Faculty of Electrical Engineering)
KCG College of Technology Karapakkam Chennai

CAREER SNAPSHOT

An astute professional with over 16 **years** experience in academics as well as in industry with research experience in the area of Control system. Currently associated with KCG College of Technology as Professor and Head in the Department of Electronics and Instrumentation Engineering. Motivated by internal standards of excellence to overachieve expectations and exceed all set goals. Possess strong communication, leadership, analytical, relationship with management and problem-solving skills.

EDUCATIONAL QUALIFICATIONS

2008- PhD (Advance Control System)

Faculty of Electrical Engineering

Madras Institute of Technology
MIT Campus, Anna University
Chennai.

2002-M.E (Process control and Instrumentation)

Annamalai University
Chidambaram.

1999-B.E (Electronics and Instrumentation)

Bharathiyar University
Coimbatore.

PROFESSIONAL EXPERIENCE

Organization	: KCG College of Technology
Designation	: Professor and Head
Duration	: May 2013 to till date

My Role and Responsibility included

- Research coordinator for college
- Higher education counselor for students
- To guide the research scholars
- To encourage and publish papers in journal

Organization : **Panimalar Engineering College**
Designation : **Professor and Head**
Duration : **June 2010 to April 2013.**

My Role and Responsibility included

- To guide students project and to handle classes
- To guide students for international education
- To motivate students to present paper and project in other institutions
- To develop overall personality of students and well disciplined

Organization : **Invensys India Private Limited**
Designation : **Assistant Manager**
Duration : **Nov 2008 to May 2010.**

My Role and Responsibility included

- Project Management and Execution of Plant information network based project
- To guide performance based service projects and conduct training for customer
- To do projects on plant performance analysis and optimization
- To analyze service support for customer
- To prepare proposal for up gradation project
- Documentation

Organization : **Invensys India Private Limited**
Designation : **Lead trainer (Learning Services)**
Duration : **December 2007 to October 2008**

My Role and Responsibility included

- To Execute up gradation project for industries
- To guide service projects for other service engineers
- **To take training for customers**
- Prepare proposal for Learning Services and up gradation projects

Organization : **Sri Manakula Vinayagar Engineering College, Pondicherry University**
Designation : **Assistant Professor& Head (ECE)**
Duration : **May 2007 to November 2007.**

My Role and Responsibility included

- Consultancy in the area of control systems
- Teaching and mentoring the students
- Establishing the lab with new equipments and technology
- Industry institute interaction coordinator to get projects and to train students in industry.
- Project coordinator

Organization : **Karunya University**
Designation : **Lecturer**
Duration : **June 1999 to April 2007.**

My Role and Responsibility included

- Research in the area of Electronics and control
- Teaching and mentoring the students
- Lab-in-Charge to procure instruments and establish the lab
- Placement coordinator to interact with the industry for recruitment of students
- Industry institute interaction coordinator to get projects and to train students in industry.
- Association coordinator to organize department association activities.

Organization : **Centre for Industrial Consultancy and Research (CSIR)**
Designation : **Project fellow for completing ME project**
Duration : **June 2002 to October 2002**

Roles and experiences

- To carry out projects
- Real time implementation of Energy Monitoring System (EMS) for Air conditioning plant.
- Suggestion for automatic control of Air conditioning plant

PROJECT EXPERIENCE IN INDUSTRY

PROJECT 1

Customer : **Asian Paints Limited**
Designation : **Lead Engineer**
Duration : **December 2007 to March 2008**

Roles and experiences:

- Total Up gradation of plant
 - Up gradation from Node bus to Mesh network
 - Hardware and software design
 - Documentation
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PROJECT 2

Customer : **PunjLoyd Limited**
Designation : **Lead Engineer**
Duration : **March to June 2008**

Roles and experiences

- Total Up gradation of plant
 - To implement INFUSION software
 - Hardware design
 - Documentation
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Project 3

Customer : **Lanco Infrastructure Limited**
Designation : **Lead Engineer**
Duration : **December 2008 to December 2009**

Roles:

- Installation tuning testing and commissioning of Plant Performance Diagnosis and Optimization for 2 units
 - Documentation
 - Hardware procurement and software design
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Project 4

Customer : **Reliance Infrastructure Limited**
Designation : **Lead Engineer**
Duration : **December 2008 to December 2009**

Roles:

- Installation tuning testing and commissioning of Plant Performance Diagnosis and Optimization for 2 units
 - Documentation
 - Hardware procurement and software design
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PUBLICATIONS, MEMBERSHIP AND AWARDS

Papers presented in the National Conference

- Paper on “Design of Fuzzy Observer for a Non-Linear Dynamic System” in Process Control and Automation (Procat-05) Conducted by Crescent Engineering College held on 16.09.05 at Vandalur Chennai.
- Paper on “Fuzzy as a tuner for PID controller” conducted by Department of Instrumentation Engineering, Annamalai University, Chidambaram 2003.

- Paper on “Design of Fuzzy Model Predictive Controller for Nonlinear Multivariable Process” conducted by Chemical Engineering Congress (CHEMCON-2005) held from 14th to 17th Dec 2005 at IIT Delhi.
- Paper on “A Motion Mechanism for House Keeping using Differential Drive Robot” conducted by Department of Electronics and Instrumentation Department, Easwari Engineering college, Chennai 2010
- Paper on “Diagnosis and Analysis of Brain Tumor using SICA and TICA methods ” conducted by Department of Electronics and Instrumentation Department, Easwari Engineering college, Chennai 2010
- Paper on “Digital spirometer for the diagnosis of respiratory disorders” conducted by department of Electronics and Instrumentation, Tamilnadu college of engineering, Coimbatore 2012
- Paper on “Linearization of Non Linear CO2 sensor using Embedded Neural Network: Practical Approach” conducted by Departments of Electrical sciences, VIT Vellore 2012
- Paper on “A web based system for home monitoring of patients with Parkinson’s disease using wearable sensors” conducted by department of Electronics and Instrumentation, Tamilnadu college of engineering ,Coimbatore 2012
- Paper on “Airplane hijack and prevention system” conducted by department of Electronics and Instrumentation, Tamilnadu college of engineering ,Coimbatore 2012
- Paper on “Effective care to Parkinsonians using ZigBee transceivers and MEMS Accelerometer” conducted by SMVD university Katra ,Jammu and Kashmir 2013

Papers Presented In the International Conference

- Paper on “Design of fuzzy observer for a three tank system” in IEEE Indicon 2005 Conducted by IEEE madras section held from 12th to 13th Dec 2005 at IIT Madras.
- Paper on “Implementation of median filter algorithm in Digital Image processing using Embedded System” JNTU Hyderabad 2010.
- Paper on “Effective approach to Airplane hijack prevention and Rescue system using microcontroller” SMART 2012 at Manakula Vinayagar engineering college, Pondicherry 2012
- Paper on “nanotechnology in medicine” conducted at Karpagam college of engineering, Coimbatore.
- Paper on “Secured Position Based Routing Scheme for Mobile Ad hoc Networks” conducted by ITCCSCC seoul Korea from june 29th to july 1st 2015
- Paper on “Staff Attendance and Monitoring System Using Bluetooth via Wired Network and File Sharing System for Android User in Grid Server conducted by ITCCSCC seoul Korea from june 29th to july 1st 2015.
- Paper on firefly algorithm based tuning of pid controller for multiple delay system conducted by ITCCSCC seoul Korea from june 29th to july 1st 2015.

Paper Published In International Journal

- “Nonlinear State Estimation using Fuzzy Kalman Filter” Industrial Engineering and Chemistry Research, American Chemical Society Publications, 2006 **(High impact factor)**.
- “Design of observer based nonlinear model predictive controller for continuous stirred tank reactor” Journal of Process control 2007, **(High impact factor) Elsevier**.
- “Effective control of accidents using routing and tracking system with integrated network of sensors” International Journal of advancements in research and technology 2010
- “Modeling and Analysis of PET Bottle Manufacturing System Using Hybrid Petri Net” International Journal of Applied Engineering Research Volume 10, Number 2 (2015) pp. 4789-4798 2015
- “Simulation Of Three Tank System Using Hybrid Perti Net For Batch Process” International Journal of Applied Engineering Research, Volume 10, Number 2 (2015) pp. 4789-4798

Reviewer

- Journal of Computer and Electrical Engineering Science Direct Elsevier Publications
- VSRD International Journals

Best Paper Award

- Paper on “Design of Fuzzy Model Predictive Controller for Nonlinear Multivariable Process” conducted by Chemical Engineering Congress (CHEMCON-2005) held from 14th to 17th Dec 2005 at **IIT Delhi**.

World 16th Rank Award in Elsevier

- “Design of observer based nonlinear model predictive controller for continuous stirred tank Reactor” Journal of Process control, **Elsevier**.

Best Contributor award

- Awarded best contributor award for the year 2014 by KCG College of Technology Chennai

MEMBERSHIP

- **ISTE member**
- **IET member**
- **ISOI member**
- **IEI member**

RESEARCH PROJECTS

Research Coordinator:

- Coordinator for Institution of Engineers (Rs50000) funded project on smart Irrigation system

Funded Projects facilitated as Research Coordinator:

- Department of Tamilnadu state council for science and technology (TANSCST) has sanctioned Rs 1.6 Lakhs for Computer science department for Brain Imaging techniques

- Aeronautical Engineering department was sanctioned Rs.9.8 (Lakhs) from DRDL as funding for research in the topic Base Drag Reduction Studies by CFD and experiment at Low speeds

BOOKS PUBLISHED

- **Process control** for sixth semester students
- **Transducer Engineering** for fourth semester students
- **Digital system design**
- **Electrical Measurements**
- **Logic and distributed control system**
- **Industrial Data Networks**

GUEST LECTURES DELIVERED WORKSHOP ORGANISED CONFERENCE KEYNOTE SPEAKER

- Guest lecture on role of instrumentation in process industries at Saveetha engineering college Chennai 2014.
- Guest lecture on process control at adhiparasakthi engineering college Melmaruvathur Chengalpet 2014.
- Keynote speaker and jury member for ICCSP 2014 and 2015 conducted by department of electronics and communication engineering adhiparasakthi engineering college chengalpet.
- Keynote speaker and jury member for ICHC1 2015 conducted by department of electronics and communication engineering saveetha engineering college chengalpet.
- Keynote speaker and jury member for ICONSTEM 2015 conducted by department of electronics and instrumentation engineering Jeppiar engineering college Chennai.
- Workshop on control system for faculty from anna university affiliated colleges funded by anna university Chennai
- Workshop on Effective research with results for engineering college faculty and PhD pursuing students in India
- Workshop on PCB Design for department faculty in kcg college of technology Chennai
- Workshop on proposal writing for engineering college faculty and PhD pursuing students in India

SHORT TERM COURSES AND SEMINARS ATTENDED

- AICTE Sponsored short term course on Biomedical Diagnostics Therapeutics and Rehabilitation organized by department of applied Mechanics from 16th November to 20th November 2015 at IIT madras
- Workshop on Proposals organized by Bharath University Chennai July 2014
- Neural network and fuzzy logic control from 18th to 30th june 2007 conducted by department of instrumentation engineering at Madras Institute of technology Anna university Chennai
- Control loop performance assessment from 8th to 9th December 2007 in the department of chemical engineering Indian Institute Of Technology Chennai.
- Fault detection and diagnosis in industrial systems from January 10th to 12th 2006 in the department of chemical engineering Indian Institute Of Technology Bombay
- Fault detection and diagnosis in industrial process from march 4th to 6th 2006 in the department of chemical engineering Indian Institute Of Technology Bombay
- National seminar on Instrumentation engineering-Practices, teaching and research (NSIE-2006) organized by ISA south India section from 27th to 28th October 2006.
- Process control from 4th to 16th December 2006 at Madras Institute of technology Anna University Chennai.
- Semiconductor manufacturing process from 23rd to 27th May, 2005 in the department of chemical engineering Indian Institute Of Technology Chennai.
- Recent trend in process automation on 18th February 2005 in the department of instrumentation engineering Madras Institute of technology Anna university Chennai
- Transducer engineering from 5th to 10th December 2005 conducted by department of instrumentation engineering at Madras Institute of technology Anna university Chennai
- Analytical and numerical methods in modeling and simulation of engineering systems" from January 12th to 16th 2004 in the department of chemical engineering Indian Institute Of Technology, Chennai
- Trends in Intelligent Measurement and Control from 22nd to 27th November 2004 conducted by department of instrumentation engineering at Madras Institute of technology Anna university Chennai
- Fuzzy Neural Network Conducted from 28th November to 11th December 2004 in the department of mathematics kongu engineering college erode
- Embedded systems and solutions organized by department of electronics and communication engineering from 10th to 22nd November 2003 at Mar arthanasius college of engineering kothamangalam kerala

- Recent trend in computer busses for process automation from 9th to 14th June 2003 conducted by department of instrumentation engineering at Madras Institute of technology Anna university Chennai
- Advanced process control on 28th February and 1st March 2003 in the department of electronics and instrumentation engineering Annamalai University Chidambaram
- Emerging trends in analytical instrumentation for process industries from 18th to 20th January 2001 conducted in department of electronics and instrumentation engineering Shanmugha College of engineering Thanjavur.
- Virtual and Intelligent instrumentation from 21st May to 2nd June 2001 conducted in department of electronics and instrumentation engineering, Karunya Institute of technology Coimbatore.
- Biosignal processing and Simulation from 29th May to 10th June 2000 conducted in department of electronics and instrumentation engineering, Karunya Institute of technology Coimbatore.

SUBJECTS HANDLED

- Control Systems
- Linear Integrated Circuits
- Electron Devices
- Transducer Engineering
- Electrical Measurements
- Measurement and Instrumentation
- Embedded systems
- Electronic circuits
- Industrial data Networks
- Electrical Machines

COMPUTER LITERACY

Having a good knowledge of **MS Office-2000** and Windows operating systems, basic knowledge of web-technology and Internet, C, **Matlab** and **Lab view**.

EXTRA CURRICULAR ACTIVITIES:

- Participated zonal level games.
- Organized cultural activities in the college as a student as well as a staff.

LANGUAGES KNOWN

- English & Tamil (Read, Write, Speak)

PERSONAL DETAILS:

Date of Birth : 2nd September, 1977

Marital Status : Married

Permanent Address : **No: 12,1st floor, 3rd street
Race view colony
Guindy,Chennai
India**



(R. Senthil)