

Dr. G.SARAVANA KUMARA M.E., Ph.D., MBA

NAME	Dr.G.SARAVAMAR
DESIGNATION	SENIOR LECTURER
QUALIFICATION	B.E (Electrical and Electronics)
	M.E (Process Control and Instrumentation) - Distinction
	PhD– (Process Control)-Anna University
DATE OF BIRTH	30.06.1973
DATE OF JOINING	13.10.2005
AREA OF SPECIALIZATION	Process control
TEACHING EXPERIENCE	10 years
INDUSTRIAL EXPERIENCE	3 years
PERMANENT ADDRESS	C-55 A , Kailash quarters, MIT,Manipal-5104
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PUBLICATION DETAILS:

International Journal

Saravanakumar G., Wahidabanu R.S.D. and Nayak C.G.,'Design and analysis of Modified smith predictors for self-regulating & Non-self regulating processes with dead-time' **International journal of Instrumentation** Aug 2007, paper Id: 2007_JINST_2_P08008

Saravanakumar G, Wahidabanu R.S.D "Frequency domain-based auto tuning controller for plants with uncertainties using well known tuning formulas "in the **International journal of automation and control, (IJAAC),** volume 1, issue 4 , Nov 2007, page 284-294, ISSN (Print): 1740-7516.

Saravanakumar G, Wahidabanu R.S.D and Nayak C.G,' Design of Dead time compensators for stable processes with Integrator and longer dead-times using Adaptive control', **International journal on Automatic control and System Engineering:** VOLUME 6, ISSUE 4, NOV 2006, page 1-5.

Saravanakumar G. and Wahidabanu R.S.D., ‘Adaptive controller based system identification for plants with uncertainties, using well known tuning formulas’, **International journal on Automatic control and System Engineering: VOLUME 6, ISSUE 3, and OCT 2006, page 17-22.**

Saravanakumar G., Wahidabanu R.S.D. and V.I.George, ‘Robustness and performance of modified smith predictors for processes with longer dead-times’, **International journal on Automatic control and System Engineering: VOLUME 6, ISSUE 3, OCT 2006, page 41-46.**

National Journal

Saravanakumar G., Wahidabanu, and Nayak.C.G.’Design and analysis of Modified smith predictors for self-regulating & Non-self regulating processes with dead-time’ in the **Indian Chemical Engineering Journal of IIT, Delhi**, volume 50, No: 1, March 2008 .

Saravanakumar G.,Wahidabanu R.S.D, George V.I, Thirunavukkarasu “Design of Modified dead-time compensators for stable processes with Integrator & Longer dead-times using Adaptive control”, in the **Indian Journal of System Science & Engineering** ,November 2006,Volume 14.

International Conference

Saravanakumar G., wahidabanu R.S.D., “Design and analysis of Modified Dead-time compensators for self-regulating and Non-self regulating processes with long dead-time using Auto-tuning, **International Conference on Intelligent Systems (ICIAS 2007) held on 25-28th November 2007 at KL Convention Centre, Kuala Lumpur, Malaysia**

Saravanakumar G.,Wahidabanu R.S.D., ‘Design of modified dead-time compensator for processes with Integrator and longer dead-time using Auto-tuning approach” **International conference on Trends in Measurements and Instrumentation** conducted at NIT, Trichy, India on 4, 5&6th January 2007.

Saravanakumar G.,Wahidabanu R.S.D,“Robustness and performance of tuning methods for a first order system with Time-delay “**International conference on intelligent systems and control** conducted at Karpagam college of Engineering, Coimbatore, India on August 9-11, 2006

Saravanakumar G., Wahidabanu R.S.D., ‘System Identification with an adaptive controller by Ziegler Nichols & Cohen coon methods’, **International conference**, Pune Institute of Technology, Pune, on Dec 2004.

National Conference

Saravanakumar G., “ Mathematical Modelling of chemical reactor and controller design using IMC “ International Conference on Mathematics, Loyola College, Chennai, 4th & 5th Jan 2009

Saravanakumar G.,Wahidabanu R.S.D.,” Analysis And Validation Of Dead-Time And Time Constant Relationship For Integrating Processes” Advance techniques in Instrumentation, control & communication national conference, St.peters college, Chennai, 24th Jan 2007,India

Saravanakumar G.,Wahidabanu R.S.D., ‘Performance analysis on modified smith predictors for self-regulating & Non-self regulating processes with dead time’ Advance techniques in Instrumentation, control & communication national conference, St.peters college, Chennai, 24th Jan 2007,India

Saravanakumar G.,Wahidabanu R.S.D., ‘Enhancements of PID controllers”, National conference on soft computing, St.peters College, Chennai, Feb 2007, India

Saravanakumar G.,Wahidabanu R.S.D., ‘ Design of Dead –time compensator for the plants with significant time – delay” Government college of Engineering, Salem, India on march 23rd 2006.

Saravanakumar G.,Wahida banu R.S.D., ‘ Fuel-Cells – Energy saving green technology”M.N.M.Jain Engineering College , 2005

Saravanakumar G., Wahida banu R.S.D., “Mems and Nano-Technology”, S.R.M.Institute of Technology, Jan 2006.

Saravanakumar G., Wahidabanu R.S.D., ‘An Adaptive I-PD controller based on frequency domain system Identification”, National conference ICECON at NIT Trichy, India, Dec 2003.

Achievements

- 1) Received a Sponsor (Rs 50,000) from Manipal University to present paper in the International Conference on Intelligent Systems (ICIAS 2007) held on 25-28th November 2007 at KL Convention Centre, Kuala Lumpur, Malaysia
- 2) Received Incentive award for research publication from research director MIT, Manipal of Rs 5000 on May 15 , 2007
- 3) As a CONVENER, Received a Sponsor from AICTE New Delhi for a sum of Rs 1, 50,000 for conducting a National conference (CISCON 2007) on 9th and 10th of Nov 2007.
- 4) Installation of all Laboratories for Instrumentation and control Engineering department, in Mahendra Engineering College and establishing the department as HOD.
- 5) Acted as University representative for Sikkim Manipal University examinations conducted at Delhi, Bombay, Aligarh, Udaipur etc
- 6) Acted as University representative, Internal examiner and external Examiner ,Question paper setter,for the following universities. Anna University, Periyar University, Madras University, Pondicherry University, Calicut University etc.
- 7) Life member of
 - Indian society of technical education
 - Instrumentation society of India
 - System society of India

Details of QIP / FDP/Conference/Workshops Attended:

Participated in the faculty Development Programme on “Transducer Engineering” conducted by Arulmigu kalasalingam college of Engineering Sponsored by Anna University, Chennai.

Participated in the two days workshop on “Advances in Process control and Instrumentation” conducted by St.Josephs College of Engineering, Chennai

Participated in the Quality Improvement programme on “Instructional Design & delivery” in Mahendra Engineering College, Mallasamudram, Namakkal Dt, Tamilnadu

Attended Faculty Development Programme on the Topic “ Environmental pollution and control “ Sponsored by AICTE during august 2004 at Mahendra engineering college.

Attended National seminar at B.V.Boomaradi Engineering College , Hubli, Karnataka on the topic “Intelligent Instrumentation for Biological Sciences”.

Attended the preconference Interactive Programme “ PLC Engineering & Distributed control systems” organized by Instrument society of India” on 18th Dec 2004.

Attended National Conference on “ Computing communication Very large scale Integration and Tele Medecine” on October 30 & 31 2004 at Government college of Engineering,Salem.

Participated in the One day workshop on Instrumentation for Thermal Analysis on 30th April 2005 organized by centre for energy and Environment Science and Technology,NIT, Trichy.

Participated in the two week staff development programme sponsored by AICTE ON “Introduction and Applications of Neuro fuzzy genetic systems” conducted at PSG College of technology coimbatore tamilnadu during 17-30th Dec 2006

Special Lecture

Delivered a talk on “Biomass” in the seminar on Renewable Energy Sources Conducted by Tamilnadu energy development agency at Mahendra engineering College, Tamilnadu.

Delivered a talk on “Fuel Cell” in the seminar on Renewable Energy Sources Conducted by Tamilnadu energy development agency at Sasurie College of Engineering, Erode in August 2005.

Delivered a Seminar in the National level Workshop on the topic “ Matlab Applications on Control Systems Tool Box conducted at MIT on 27th and 28th of 2006.

Delivered a seminar in the Staff development programme on “ Modern Controller design techniques” in Manipal Institute of Technology, Manipal on 9-13th June 2008.

Additional responsibilities:

Organizing member for the Control Instrumentation and system conference (CISCON 2005) held in November 2005

Co-Convener for the Control Instrumentation and system conference (CISCON 2006) held in November 2006

Convener for the AICTE SPONSERED CONTROL INSTRUMENTATION AND SYSTEM CONFERENCE (CISCON 2007) held in November 2007

Organizing member for the National system conference (NSC 2007) held in Dec 14-15 , 2007

Organizing member for the Control Instrumentation and system conference (CISCON 2008) to be held in November 2008

Incharge of Web site updation of Instrumentation and control Engineering Department.

Incharge of Publication of University results for B.E degree examinations of ICE Department.

Subjects taught: B-Tech

Process Control, process Instrumentation and control, Instrumentation and control in Petro-chemical Industries, Chemical process control, Control systems, Control Engineering, Electrical measurements and Instruments, Electrical technology, Electrical Engineering, Electrical Machines, Circuit theory, Industrial chemical process, Circuits and Network etc

Subjects taught: M-Tech

Process dynamics and control, System Modeling and Simulation and System Modeling and Identification

Projects Guided: B.Tech

- 1) Refinements on Ziegler-Nichols Tuning Formula for PI control
- 2) An adaptive I-PD controller based on frequency domain system Identification
- 3) Design and analysis of Self-regulation and Non-self regulating processes using IMC
- 4) Performance of gain and phase margin of well known PI Tuning formulae
- 5) Upgrading the legacy I/A series system to the latest version
- 6) PI settings for Integrating processes based on ultimate cycle information

Projects Guided: M.Tech

Design and simulation of modified smith predictor for processes with Integrator and longer dead-time.