

Cellphone : 9445405689

e-Mail ID : manamalli\_m@yahoo.com

Address : No.40,George colony Perambur Chennai-600011



## Present Position

Professor, Department of Instrumentation Engineering, Madras Institute of Technology, Anna University, Chennai from November-2013.

## Previous Positions

- > Associate professor, Department of Instrumentation Engineering, Madras Institute of Technology, Anna University, Chennai during July-2009 and November-2013.
- > Assistant Professor, Department of Instrumentation Engineering, Madras Institute of Technology, Anna University, Chennai during July-2006 and July-2009.
- > Lecturer, Department of Instrumentation Engineering, Madras Institute of Technology, Anna University, Chennai during August-2000 and July-2006.

## Previous Additional Responsibility

- > , , Anna University, Chennai.
- > Deputy Warden, Madras Institute of Technology, Anna University, Chennai.

## Other Employment

- > Teacher Trainee, Department of IE for 3years.

## Degree

- ❖ M.E. MIT, Anna university (1997 - 1999).
- ❖ B.E. in ELECTRICAL AND ELECTRONICS ENGINEERING , GCT Coimbatore, Bharathiyar University (1989 - 1993).

## Research Degree

- ❖ Ph.D. in Process control from Faculty of Electrical Engineering, MIT, Anna University (2000 - 2006).  
Title: Optimal control of FCCU and Catalytic reformer.

## Area of Specialisation

- > Process control

## Membership in Professional Organization

- > ISTE,ISA

## Research Guidance

Number of Ph.D Scholars Guided	: 6
Number of Ph.D Scholars Guiding	: 4
Number of M.S (By Research) Students Guided	: 1
Number of M.E./ M.Tech. Projects Guided	: 30
Number of M.E./ M.Tech. Projects Guiding	: 2
Number of Ph.D Scholars Guided as Joint-Supervisor	: 1

## Papers Published in Journals

Research Papers Published in International Journals	: 20
Research Papers Published in National Journals	: 0

1. D.Manamalli,P.Kanagasabapathy and K.Dhivya, "Optimal control of catalytic reformer using Artificial Neural networks", Chemical engineering Communication,
2. D.Manamalli,P.Kanagasabapathy, "Fuzzy logic Control of Catalytic Reformer", Asian-Pacific Journal of Chemical Engineering, Vol. 3, pp. 46-56
3. S.Ewins Pon Pushpa & D.Manamalli, "Utilization Bound Scheduling analysis for work conserving non-preemptive Uniprocessor Architecture using UML-RT", Modelling and Simulation in Engineering, published by Hindawi.
4. D. Manamalli, P.Kanagasabapathy and D.Vasanthi, " Optimization of Fluidized catalytic Cracking Unit(FCCU)(2005)", Advancement on Modeling and simulation techniques in Enterprises, Vol. 66, pp. 1-18 (2005).
5. D. Manamalli and K. Dhivya, "Intelligent optimal control schemes applied to Catalytic reforming unit", Engineering Simulation, Vol. 6, pp. 37-43 (2005).
6. Rames C Panda, V.Vijayan, V.Sujatha, P.Deepa, D.Manamalli, "Parameter estimation of integrating and time delay processes using single relay feedback test", ISA Transaction, Vol. 50, Issue 529, (2011).
7. P. Deepa, Panda RC & D. Manamalli, "Auto-Tuning of Fuzzy PI Controller for Liquid Level in Spherical Tank System", European Journal of scientific research, published by European Journal Inc. Vol. 92, Issue 1, pp. 76-84 (2012).

8. S. Ewins Pon Pushpa and D.Manamalli, " Unified Modeling approach for traffic at actuated signals using UML- RT ", Modelling and Simulation, Vol. 32, Issue 2, pp. 111-118 (2012).
9. "Control of Liquid Level in spherical tank using Auto-Tuned Fuzzy PI Controller", Wulfenia Journal Klagenfurt, Austria, Vol. 20, Issue 6, pp. 343-354 (2013).
10. S.Vijayalaksmi, D.Manamalli &T.Narayani, "Model Identification for Industrial Coal Fired Boiler Based on Linear Parameter Varying Method", Engineering and Technology, Vol. 5, Issue 5, (2013).
11. D.Manamalli&S. Kanagalakshmi, "Design of Multimodel based PID controller for Injection Molding machine", Trends in Industrial Measurements & automation (TIMA-2013) , (2013).
12. S.Ewins Pon Pushpa & D.Manamalli, "A platform independent model for MPSoC scheduling using UML-RT", Software Engineering, Vol. 1, Issue 1, pp. 17-20 (2013).
13. S.Vijayalakshmi and D.Manamalli, "LPV Modeling and Performance Analysis of Boiler Drum using IMC-PI ControllerJournal", Applied mechanics and Materials , Vol. 415, pp. 117-121. (2013).
14. "Multiloop PI Controller Tuning for Maximum Gasoline Yield in an Industrial Catalytic Cracking Unit ", Modeling and Simulation, (2013).
15. S.Kanagalakshmi, D.Manamalli, M.Mohamed Rafiq,, "1. , Dr.D. Manamalli, "Design of Multimodel based MPC and IMC control schemes applied to injection molding machine", International Journal of Engineering & Technology," International Journal of Engineering & Technology, pp. pp.82-92 (2014).
16. P.Dhinakaran D.Manamalli, "Control of Permanent Magnet DC Motor by Receding Horizon Control and Coefficient Diagram Method", International Journal of Applied Engineering Research, Vol. 10, Issue 715, (2015).
17. P.Dhinakaran D.Manamalli, "Novel Strategies in the Model Based Optimization and Control of Permanent Magnet DC Motors", Computers and Electrical Engineering , Vol. 44, Issue 34, (2015).
18. S.Kanagalakshmi, D.Manamalli, M.Mohamed Rafiq, "Implementation of Multimodel-Based PID and Intelligent Controller for Simulated and Real-Time Temperature Control of Injection Molding Machine", Chemical Engineering Communications , published by Taylor&Francis. Vol. 203, pp. & 452-462 (2016).
19. "Synthesis of Fuzzy Sliding Mode Controller for Liquid Level Control in Spherical Tank", Systems & control, Cogent Engineering,, Vol. 3, (2016).
20. S.Ewins Pon Pushpa, D.Manamalli,, "Optimum inter-release time analysis for non-Preemptive periodic task set", International Journal of Modelling and Simulation, Vol. 3, (2017).

## Papers Presented in Programmes

Research Papers Presented in International Programmes	: 14
Research Papers Presented in National Programmes	: 4

1. P.Deepa Panda RC & D. Manamalli, "Liquid Level Control in a Spherical Tank', Proc. Of International Conference" presented in a International level conference on Chemcon-2009, India .
2. Panda R C &D. Manamalli , "ANFIS based Liquid Level Controller for a Spherical tank" presented in a International level conference on Chemcon-2011, India .
3. A.Malarkodi, G.Latha, D.Manamalli & G.Kavitha, "Acoustic Scattering of Underwater Targets" presented in a International level conference on SYMPOL, India .
4. D.Manamalli & S.Kanagalakshmi, "Fuzzy modeling of Catalytic Naphtha reformer using Takagi-Sugeno method" presented in a National level conference on Process control and automation, organised by Crescent Engineering college, India .
5. M.Mythili,Madivadani & D.Manamalli, "Dynamic yield modeling and control of FCCU for the study of reactor temperature effect on gasoline yield" presented in a National level conference on MMASC-2012 , organised by Coimbatore Institute of Technology, India .
6. S. Ewins Pon Pushpa and D. Manamalli , "A Platform Independent Model for Adaptive Traffic Control Using UML – RT" presented in a International level conference on Process Automation, Control and Computing PACC 2011 , organised by Coimbatore Institute of Technology, India .
7. S. Ewins Pon Pushpa and D. Manamalli , "Analysis of Inter-release Time for Non-preemptive Periodic Tasks on Uniprocessor using UML-RT" presented in a International level conference on Trends in Industrial Measurements and Automation (TIMA-2013), organised by Madras Institute of Technology,Anna University,Chennai, India .
8. S. Ewins Pon Pushpa and D. Manamalli , "'A platform independent model for MPSoC scheduling using UML-RT" presented in a International level conference on Software and Computing Technology (ICSET 2012), Malaysia .
9. M.Mythily, D.Manamalli & P.Manikandan , "Dynamic Modeling, Simulation and Multivariable Control Strategy Applied To Catalytic Cracking Unit" presented in a International level conference on Process automation, control and computing (IEEE - PACC 2011) , organised by Coimbatore Institute of Technology, India from 20-Jul-2011 to 22-Jul-2011.
10. S.Vijayalaksmi,Dr.D.Manamalli & T.Narayani, "Identification of Industrial Boiler Furnace using Linear Parameter Varying Model" presented in a International level conference on Intelligent systems and control from 04-Jan-2013 to 05-Jan-2013.
11. M.Mythily & D.Manamalli, "Investigation on closed loop response of FCCU for gasoline Maximization" presented in a International level conference on Global Challenges, Strategies and Solutions in Engineering, Business & Disaster Management, organised by Noorul Islam University, India from 08-Mar-2013 to 09-Mar-2013.
12. S.Vijayalaksmi,Dr.D.Manamalli & Karthiga, "Modelling and Heuristic Control Scheme for Boiler Drum" presented in a International level conference on Recent Trends in Instrumentation and Control , organised by Madras Institute of Technology , India from 22-Mar-2013 to 23-Mar-2013.

13. S.Vijayalakshmi,Dr.D.Manamalli & G.PalaniKumar, , "Experimental Verification of LPV Modelling And Control for Conical Tank System" presented in a International level conference on IEEE International Conference on Industry Electronic Application, organised by Swinburne University of Technology, Australia from 19-Jun-2013 to 21-Jun-2013.
14. D.Manamalli & S. Kanagalakshmi, "Real time Implementation of Multimodel Based PID and Fuzzy controller for Injection molding machine" presented in a International level conference on Proceedings of 10th IFAC International symposium on Dynamics and Control of Process systems, India from 18-Dec-2013 to 20-Dec-2013.
15. M.Mythily & D.Manamalli, "Gasoline Maximization through Generalized Predictive Control in Catalytic Cracking Unit " presented in a International level conference on Proceedings of the International conference on Trends in Industrial Measurements & automation (TIMA-2013) , organised by Madras Institute of Technology , India from 22-Dec-2013 to 24-Dec-2013.
16. D.Manamalli & S. Kanagalakshmi, "Design of Multimodel based PID controller for Injection Molding machine" presented in a International level conference on Proceedings of the International conference on Trends in Industrial Measurements & automation (TIMA-2013), organised by Madras Institute of Technology , India from 22-Dec-2013 to 24-Dec-2013.
17. M.Mythily & D.Manamalli, "Effect of Independent Variables on the Maximization of Gasoline Yield and Closed loop studies in Catalytic Cracking Unit" presented in a National level conference on Industrial Technology, organised by Bannari Amman Institute of Technology, India from 26-Feb-2014 to 27-Feb-2014.
18. D.Manamalli & Chanrika, "Maximization of power in photovoltaic system using MPPT Algorithm" presented in a National level conference on Industrial Technology, organised by Bannariamman Institute of Technology, India from 26-Feb-2014 to 27-Feb-2014.

## Programme Organized

1. National level Short Course on "Adanced Instrumentation system applied to Thermal power plant" .
2. Co ordinator, National level workshop on "OPEN MODELICA" from 28-Apr-2011.
3. National level Short Course on "Distributed digital Control System" from 13-Nov-2011.
4. Co ordinator, National level Short Course on "Instrumentation in Petrochemical Industry" from 03-Jun-2014 to 09-Jun-2013.
5. Co-ordinator, National level conference on "Recent trends in Instrumentation and Control" from 18-Mar-2016 to 19-Mar-2016.

## Programme Attended

1. Participated in a National level workshop on "Virtual Instrumentation." organized by Madras institue of Technology, India from 02-Mar-2007 to 03-Mar-2007.
2. Attended a National level Short Course on "CS3000 Fundamentals & Engineering" organized by Yokogawa India Ltd., India from 14-May-2007 to 18-May-2007.

3. Attended a National level Short Course on "Labview Basics 1" organized by National Instruments, India from 01-Oct-2007 to 03-Oct-2007.
4. Attended a National level Short Course on "Embedded systems Development on FPGAs" organized by Madras institute of Technology, India from 07-Jan-2008 to 08-Jan-2008.
5. Attended a National level seminar on "Non-linear control systems" organized by Dept of Chemical Engineering,NIT., India from 21-Feb-2008.
6. Attended a National level Short Course on "Process Control" organized by Madras institute of Technology, India from 01-Dec-2008 to 07-Dec-2008.
7. Attended a National level Short Course on "Preconference tutorial on Advanced Process control" organized by Madras institute of Technology, India from 04-Jan-2009.
8. Attended a National level Short Course on "Adaptive control" organized by Madras institute of Technology, India from 03-May-2010 to 09-May-2010.
9. Attended a National level Short Course on "Time series Modelling & spectral Analysis-Theory & applications" organized by Dept of Chemical Engg,IIT,Chennai, India from 12-Jul-2010 to 17-Jul-2010.
10. Participated in a National level conference on "System simulation, Advanced process control and Intelligent Systems" organized by CDAC, India from 16-Dec-2010 to 17-Jun-2010.
11. Attended a National level Short Course on "Digital Control system" organized by Madras institute of Technology, India from 02-Dec-2013 to 08-Dec-2013.

## Honours

1. "Best Teacher Award" given by Instrumentation Engg, MIT from India (2015).

## Experience Abroad

1. Institute of control systems, . Purpose of visit :To discuss about the collaborative project with Prof. Herbert Werner.
2. University of Cape Town,South Africa from 30-Oct-2009 to 08-Nov-2009. Purpose of visit :To carry out collaborative research project sponsored by DST,India.
3. University of Wismar,Germany from 26-Nov-2011. Purpose of visit :To visit process control and mechanical sciences lab.

## Invited Lectures

1. Delivered a Lecture on "Complex control systems" in Invited guest lecture organized by Jerusalem college of Engineering, Chennai.
2. Delivered a Lecture on "safety and Instrumentation" organized by R.M.K. Engineering college (27-May-2011).