

Academic Profile

1. Name : Dr.Ginuga Prabhaker Reddy
2. Designation : Professor
3. Department/ College : Dept. of Chemical Engineering
University College Of Technology
Osmania University, Hyderabad 500007
Telangana State

4. Roles Played In The Institution :

1. Director, Exam Cell
2. Director, Training and Placements Cell
3. Chairman, BOS In Technology
4. Member, Departmental Committee
5. Addl. Chief Warden, Tech. Hostels
6. Nodal Officer (Finance), TCEQIP-II

5. **Academic Qualifications:**

- i. Qualifications: Ph.D. (Chemical Engineering), IIT Madras -1996
M.Tech. (Chemical Engineering) IIT Madras- 1991
B.E. (Chemical Engineering), NIT (REC) Srinagar J&K -1988
- ii. Teaching experience: 21 yrs.
- iii. Members of Professional bodies : IChE & AIChE
- iv. Awards: Received Best Paper award during CHEMCON-2003, held in Bhubaneswar.

6. Specialization: Process Control - Nonlinear, Fuzzy Logic & Neural Networks Control Systems

7. Teaching

- i. Current courses:

B.Tech.

1. Process Dyn. & Control Lab
2. Polymer Eng. & Tech.
3. Polymer Eng. & Tech. Lab

M.Tech.

1. Virtual Instrumentation
2. Adv. Transport Phenomena
3. Fuzzy Logic and Neural Networks Control Systems
4. Adv. Process Dynamics and Control
5. Computer Process Control

- ii. Courses taught

B.Tech

1. Process Dynamics and control
2. Process Dynamics and control Lab
3. Heat Transfer
4. Fluid Mechanics
5. Process control & Instrumentation
6. Computer Programing
7. Polymer Eng. & Technology
8. Polymer Eng. & Technology Lab

M.Tech.

1. Adv. Process Dyn. and Control
2. Optimal Control
3. Nonlinear systems and Artificial intelligent control

8. Research

a) Papers Published in International/National Journals:-

National Journals

- 1). J.S.N.Murthy, K.Venkat, **G.P.Reddy**, V.Ramesh Kumar, Prediction of Dynamic Thermal Response of a Gas-Solid Fluidized Bed, Indian Chemical Engineer, 48, 240-251, (2006).
- 2). **Reddy, G.P.** and M.Chidambaram, Model Reference nonlinear control of bioreactors with input multiplicities, Indian Chemical Engineer, Section –A, 39, No.4, pp.T98-T102, Oct.-Dec.(1997).
- 3). Chidambaram, M and **G.P.Reddy**, Nonlinear IMC of systems with input multiplicities, Indian Journal of Chemical Technology, 2, 115-118 (1995).
- 4). Chidambaram, M and **G.P.Reddy**, Analysis of chemical reactors with input and output multiplicities, Journal of IETE, 41, No.5 &6 297-299 (1995)

International Journals:

- 1). Meghana Ch., K.Sandeep, N.Ravi Chander Reddy, G.Prabhaker Reddy, A Real-time temperature control of a plate heat exchanger by Artificial Neural Networks, Int. J of Management, Technology and Engineering, Vol.8, pp1477-1481, (2018).
- 2). Sandeep K., N.Ravi Chander Reddy, Ch. Meghana, G.Prabhaker Reddy, Real-time studies on fuzzy logic control of a plate heat exchanger, Int. J of Management, Technology and Engineering, Vol.8, pp1502-1506, (2018).
- 3). Srinivas B., K. Anil Kumar and G.Prabhaker Reddy, Control of a double effect evaporator using Neural Networks based Model Predictive controller, Int. J of Adv. Research in Science and Engineering, Vol.6,pp882-886,(2017).

- 4). Anil Kumar K. and G.Prabhaker Reddy, A Robust Fuzzy logic control of a two tanks liquid level process, Int. J of Advanced Engineering, Management and Sciences, Vol.2,pp 288-292 (2016)
- 5). Ginuga Prabhaker Reddy, G.Radhika and K.Anil, Control of continuous stirred tank Reactor using Artificial Neural Networks based Predictive Control, Advanced Material Research, Vol. 550-553, pp.2908-2912, (2012)
- 6). G. Prabhaker Reddy and B. C. Eranna, Near optimal Control of Bioreactor with Input Multiplicities by Fuzzy Logic Method, Journal of Artificial Intelligence: Theory and Application, 1,pp 48-53 (2010)
- 7). S.V. Sunil Kumar, V.Ramesh Kumar and G.Prabhaker Reddy, Nonlinear control of bioreactors with input multiplicities-an experimental work, Bioprocess and Biosystems Engineering, 28, 45-53, (2005).
- 8). Reddy, G.P. and M. Chidambaram, Model Based control of nonlinear systems with input multiplicity, Hungarian Journal of Industrial Chemistry, 27, 81-84 (1999).
- 9). Chidambaram, M and **G.P.Reddy**, Nonlinear control of systems with input and output multiplicities, Computers and Chemical Engineering, 20, 29-299 (1996).
- 10). Chidambaram, M and **G.P.Reddy**, Nonlinear control of systems with input multiplicities, Computers and Chemical Engineering, 19, 249-252 (1995).
- 11). Reddy, G.P. and M.Chidambaram, Nonlinear control of bioreactors with input multiplicities in Dilution rate, Bioprocess Engineering, 12, 151-155 (1995).
- 12). Reddy, G.P. and M.Chidambaram, Near-optimal productivity control of continuous bioreactors, IEE- Control Theory Applic. ,142, o.6, 633-637(1995).
- 13). **Reddy, G.P.** and M.Chidambaram, Nonlinear control of bioreactors with input multiplicities, Bioprocess Engineering, 11, 97-100 (1994).
- 14). **Reddy, G.P.** and M.Chidambaram, Control of nonlinear systems with input multiplicities, Hungarian Journal of Industrial Chemistry, 21, 239-242 (1993).

National Conferences

- 1) G.Prabhaker Reddy and T.Srinivas, Studies on Dynamics and Control of a CSTR with input multiplicities using Aspen Dynamics, Paper (Poster) -628, CHEMCON-2011, Bangalore.
- 2). B. Madhava Narsihma and **G.Prabhaker Reddy**, Observer Design for Steam Super Heater Temperature Control of thermal power plants” Presented (Poster) at Chemical Engineering Congress (CHEMCON)-2006 held at Bharuch, Gujarath.
- 3).Shailaja and **G.Prabhaker Reddy**, Fuzzy logic control of drum boiler level in thermal power plants, Presented at Chemical Engineering Congress

(CHEMCON)- 2005 held at New Delhi.

- 4).Siva Prasad , **G.P.Reddy** and V. Ramesh Kumar, Studies on Self-tuning controller of bioreactor with input multiplicities, Presented Chemical Engineering Congress (CHEMCON)-2003 held at Bhubaneshwar. **(Received Best paper Award)**

International Conferences :

- 1) G.Prabhaker Reddy, P. Radha Krishna and Ch. Swetha, A Stable Neural Networks based NARMA-L2 control of Bioreactor with input Multiplicities (Accepted in IAENG – International .conference on Chemical Engineering, 2013 to be held in San Francisco, USA)
- 2) G. Prabhaker Reddy and B.C. Eranna, A stable direct inverse neural network control of continuous stirred tank reactor with input multiplicities, Proceedings of AIChE Annual Meeting, 2012 held during Oct. 28 – Nov.2,2012, Pittsburgh, USA.
- 3) Priti Cicili, G.P.Reddy and V.Ramesh Kumar, Dynamic Matrix Control of HDS Reactor, Proc. IMECS2009-International Multi conference of Engineers and computer Scientists 2009, 18-20, March 2009, Hong Kong, pp-1320-1325,

Vol.II , ISBN: 978- 988-1701 2-7-5.
- 4). G.Prahaker Reddy, V.Ramesh Kumar and B.Spandana, Pseudo Dynamic Model Reference Nonlinear Control of a Continuous Bioreactor with Input Multiplicities,Proc. IMECS2009-International Multi conference of Engineers and Scientists 2009, 18-20, March 2009, Hong Kong, pp-1315-1319,Vol.II ISBN: 978-988-17012-7-5.
- 5). Anuradha, G.Prabhaker Reddy and J.S.N.Murthy, Direct Inverse Neural Network Control of a Continuous Stirred Tank Reactor (CSTR), Proc. IMECS2009- International Multi conference of Engineers and computer Scientists 2009, 18- 20, March 2009, Hong Kong, pp-1352-1356, Vol II, ISBN: 978-988-17012-7-.5
- 6)..**Reddy, G.P.** and A.N.Raju, Nonlinear internal model control of continuous bioreactor with input multiplicities, The 27th IASTED international conference on Modeling, Identification and Control (MIC-2008) , February 11-13 2008,Innsbruck, Austria. Europe. ISBN Hardcopy:978-0-88986-711-6/ CD 978-0-88986-712-3.

b) National/ International Seminars/ Conferences/ Workshops attended:

S.NO	Name of the conference	Date/ Year	Participation	Paper Presentation	Chairing The session
1.	The World Congress on Engineering and Computer Science 2013 (WCECS2013) San Francisco, USA	2013		A stable artificial neural network based narma-l2 control of a bioreactor with input multiplicities	

2.	AICHE Annual Meeting, Pittsburg, USA	2012		A Stable direct inverse neural network control of continuous stirred tank reactor with input multiplicities	
3.	The 27 th IASTED Int. conference on Modeling, Identification and Control Innsbruck, Austria	2008		Nonlinear internal model control of continuous bioreactor with input multiplicities.	
4	IAENG – International Multi Conference of Engineers and Computer Scientists Hon Kong.	2009		Pseudo Dynamic Model Reference Nonlinear Control of Bioreactor with input multiplicities.	Yes

c) National/ International Seminars/ Conferences/ Workshops conducted:-

S.No.	Name/Title	Date(s)	Responsibility
1	Academic Reforms in Chemical and its allied Engineering Courses under TEQIP-II	September 2012	Convener
2	Training program on Computer Fundamentals to Staff of the UCT.	3-13, July 2006	Coordinator
3.	Workshop on Design and analysis of experiments	2-3, March, 2001	Member
4.	National seminar on wealth from waste	15 th April 2001	Member
5.	Indian Chemical Engineering Congress – CHECON-2002	December 2002	Member

Guiding / Supervision:-

Ph.D. Guidance : Total No of Scholars : 5 , Completed : 2 and On going : 6

M. Tech. Dissertations : 18

d) Books Published: Nil

e) Patents :- Nil

- f) Major/ Minor Research Projects:-
a. Completed

S. No	Title of the Project	Funding Agency	Duration	Year	Grant in lakhs	Principal Investigator
1	Control of nonlinear Processes with input Multiplicities	AICTE, New Delhi	4	2001-05	9	Self

b. On Hand / New Projects:-

1.	Identification and Control of Nonlinear Processes with Input Multiplicities	OU-DST- PURSE	3	2011-14 (On Going)	5	Self
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- g) Consultancies:
Did Consultancy work of Process control lab in Gurkul, DAE, Hyderabad.

- h) Any other Information:-

PRINCIPAL

SIGNATURE OF THE TEACHER