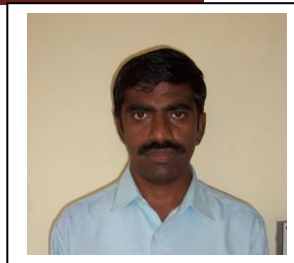


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Curriculum Vitae



My doctoral work at MIT Anna University was in the area of PID control. In May 2007, I joined National Institute of Technology at Tiruchirappalli as a lecturer in the department of Instrumentation and Control Engineering. All along, in the 21+years of my service, I have taught to the students, both undergraduate and postgraduate

1. Name S.NARAYANAN
2. Designation: ASSISTANT PROFESSOR
3. Office Address: ICE DEPT,
4. Telephone (Direct) (Optional):
Telephone : 043123050 Extn 3364
Mobile (Optional):
5. Email (Primary):narayanan@nitt.edu Email (Secondary) :
6. Field(s) of Specialization: CONTROL SYSTEM DESIGN
7. Employment Profile

Industrial Experience

No	Duration	Organization	Title of Project and Nature of work	Designation
1.	April 09,2001 to June 11,2001	Yokogawa Blue Star Limited, Bangalore	Systems group	Trainee Engineer

Teaching Experience

Job Title	Employer	From	To
Teaching Research Associate, Remarks: consolidated emoluments of 8000/-p.m in the first year, Rs8500/-p.m in the second year, Rs9000/-p.m in the third year and Rs9500/-p.m in the final year. Teaching/lab workload : 10-12 hours/week.	Department of Instrumentation Engineering, Madras Institute of Technology, Chennai	July 2001	July 2005
Lecturer (self-supporting) Scale of pay: 8000-275-13500	Department of Electrical and Electronics Engineering, Thiagarajar College of Engineering,	Aug 2005	May2007

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	Madurai			
Lecturer	Department of Instrumentation & Control Engineering, National Institute of Technology, Trichy	4th May 2007	Dec.2008	
Assistant Professor 7000	National Institute of Technology, Trichy	Dec.2008	Dec.2011	
Assistant Professor 8000	National Institute of Technology, Trichy	Dec.2011	Till date	
8. Academic Qualifications	Board / University	Year	Division/ Grade	Subjects
PhD	MIT, Anna University	Dec 2008	-	Process Control
M.E.	MIT, Anna University	Jan 2001	FIRST	Instrumentation
B.E	ANNAMALAI UNIVERSITY	1996	FIRST	Electronics & Instrumentation

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
Water doctor maintenance committee member	Institute level		
Electronics Lab in charge	department		
One of the coordinator for AICTE-MHRD sponsored course on computer control of process.			
UG&PG Project Review committee member	department		
PAC Chairman	department		
Staff Advisor for department student symposium	department		
Staff advisor for 2008 Batch			
PhD DC member	ICE Department and allied department		

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Purchase committee member- DST-FIST (4.0 lakhs)	department		
Member of Boards of Studies, ICE Department	department		
One of the stock verification officers	Other department		
One of the committee member in reception committee in connection with NITT Director's meet held on 22 nd - 24 th September 2009			
One of the committee member in prizes, electrical works and decoration committee in connection with Festember-09 held on 17 th -21 st September 2009			
One of the NBA coordinator in the department level			

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To
Anna university representative(AUR) for Tamil Nadu engineering entrance examination at Namakkal	Year-2003- PGP arts college, Namakkal. Year-2004- Government arts college, Namakkal.		
Doctoral committee member for PhD scholar	MIT campus, College of engineering guindy campus,		

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	Thiagarajar College of Engineering,		

11. Awards, Associateships etc.

1. Paper titled, “Robust PI stabilization of Rosenbrock system”, has been selected as best paper among the papers presented in the field of control engineering during the TIMA international conference, 2004. Chennai.
2. Paper titled, “IMC based PID controller design for gas turbine plant”, has been selected in the Best of books, 2009, AMSE Publications.

12. Fellowships:nil

13. Details of Academic Work

(i) Curriculum Development-

(ii) Courses taught at Postgraduate and Undergraduate levels

PG

1. computer control of process
2. modern control

UG

- 1.LIC lab
2. LIC theory
3. Process control
4. control system
5. modern control theory
6. logic and distributed control
7. analog electronics
8. circuit theory
9. circuit lab
10. Control system lab

(iii)Projects guided at Postgraduate level

No.	Name	Year of completion	Title of Thesis
1	Boban vargese (210115016)	2016	Multivariable control system design
2	Jyothis sebastian (210114023)	2015	Optimal control system design
3	Marrtin Luthur S.K (202208021)	2010	Investigation on fractional order controllers
4	Vagya.B (202208007)	2010	Computation of stabilizing PI, PID controllers for SISO system
5	Jeya Senthil (CLD0618)	2008	Control system design

(iv)Other contribution(s)

Institute interaction

1. Area: fractional order control

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Mentor: Dr.J.prakash, Department on Instrumentation Engineering ,
MIT,Anna university, Chennai

2. Area: control of recycle process

Duration: 5 years

Mentor: Dr. Ravindra Gudi,

Department on chemical Engineering , IIT,Bombay

3. TINA open source software introduced from 2013 onwards in analog integrated circuits lab. It is useful to demonstrate the theory concepts.

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Modeling and Control of Processes with Large Process and Random Distrurbances	CDAC-ASTeC Project	2009	2012	Co-PI ,Completed,10 Lakhs

15. Number of PhDs guided

PhD-COGUIDE

NUMBER OF SCHOLARS:01(COMPLETED)

R. Kondareddy,

MS (Research)-Completed:

Area: multivariable control-

SPECIFIC AREA: ROW BY ROW DECOUPLING CONTROL

NUMBER OF SCHOLARS: **02** (COMPLETED)

1.Ramanuja Vinayak

2.Devi Arati

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc.
(mentioning the role)

Participation:

1. Two day programme on “conclave on academic reforms “on 28th &29th April 2015 held at NIT, Trichy.

2. One day the tutorial workshop on “data based analysis & synthesis of linear systems”, 31 December 2013.

3. Two day faculty orientation programme on "class room management &communication held on 5th&6th, October 2012, Tanjore.

4. Two days seminar on current trends in industrial Automation, NITT.

Sponsoring agency: NITT

Duration: 18th-19th February, 2010.

5. One day seminar on Automation system technology, MIT, Chennai.

Sponsoring agency: CDAC, PROJECT

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Duration: 19th December, 2009

6. One day tutorial on Advanced Automation, MIT, Chennai.

Sponsoring agency: CDAC, PROJECT

Duration: 18th December, 2009

7. One day workshop on polynomial global optimization and constraint propagation techniques, NITT.

Sponsoring agency: NITT.

Duration: 17th December, 2009.

8. One week Tutorial workshop on “Advanced Optimal Control and Estimation“, IISc.

Sponsoring agency: TEQIP

Duration: 28th-01st August, 2008.

9. One week induction Training programme on “Industrial Design and Delivery“ NITTR.

Sponsoring agency: TEQIP

Duration: 07th-12th July, 2008.

10. One day workshop on Multi variable control system, NITT.

Sponsoring agency: TEQIP

Duration: 29th February, 2008.

11. Two days UGC sponsored short term course on “advanced process control”, Annamalai University, Chidambaram. 28thFebruary, 2003- 01st March 2003.

Participated in conference and presented a paper in

1. RTIC2016 held at MIT Anna University.

2. ICC2016 held at Hyderabad.

3. RTIC2015 held at MIT Anna University.

4. TIMA2011, Chennai.

5. The international conference on modeling and simulation (MS'09, India) held at Thiruvananthapuram.

6. The National conference on electrical engineering and embedded systems, Anna University, Chennai.

7. NPCID-2005 held at MIT, Chennai. 16th -17th December2005.

8. IEEE INDICON, 2005, held at IIT Madras. 11-13 December 2005.

9. ICECON2005 held at NIT, Tiruchirappalli.

10. NSC2004 held at Vellore.

11. TIMA2004 held at CSIR Complex, Chennai, and 18th December2004.

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

Title of Activity	Level of Event (International/ National/ Local)	Date (s)	Role	Venue
AICTE-MHRD sponsored course on computer control of process	National	4th Jan.2010 -9th Jan. 2010.	one of the coordinator	NIT, Trichy

18. Invited Talks delivered

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Topic	Date	Inviting Organization
Robust control	28thFebruary, 2003- 01st March 2003.	Annamalai university
Model reference adaptive control		MIT, Anna university, Chennai
Fractional order control		kongu engineering college
Tuning of PI&PID control		DRDL, Hyderabad

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Life Member	System Society Of India	LM24004
Life Member	ndian Society For Technical Education	LM81794

20. Academic Foreign Visits :nil

21. Publications

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
Narayanan.S., Kanagasabapathy P.and Prakash J,	Constant Gain Stabilization with Desired Damping	Computers and Chemical Engineering Journal	30 (6-7)	1072-1075	2006	sci
Vinopraba, T Sivakumaran, N.; Narayanan, S.;; Radhakrishnan, T. K	Design of internal model control based fractional order PID controller	Journal of Control Theory and Applications	10	297-302	2012	scopus
Deepak Prasanna, Narayanan S	Control of Recycle System Using Extended State	International Journal of Dynamics and Control			2021	scopus

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	Observer Concept					
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(B) Conferences/Workshops/Symposia Proceedings

Papers presented in International Conferences

1. Modified Active Disturbance Rejection Controller Design for Multivariable System, "Rajkumar K., Narayanan, S.", 2nd International Conference on Energy, Power and Environment: Towards Smart Technology, ICEPE 2018,
2. Nonlinear PI with state feedback control for activated sludge process, Vinayak, J. Ramanuja; Narayanan, S., "IEEE International Conference on Information, Communication, Instrumentation and Control, ICICIC 2017, Volume 2018-January, Year 2018, Pages 1-7
3. Control system design for process with recycle, Deepak prasanna, narayanan.s; "International conference on reuse and recycling of material (ICMR2018), Kottayam, kerala, 2018
4. Control system design for process with recycle, "Rajkumar, K.; Narayanan, S." IEEE International Conference on Information, Communication, Instrumentation and Control, ICICIC 2017, Volume 2018-January, Year 2018, Pages 1-7
5. Rajkumar K, Narayanan S and Sivakumaran N, "Design of Centralized Controller based on Inverted Decoupling Structure for non-square systems with time delay", TIMA 2017, 06-08 January, MIT, Madras.
6. Ramanuja Vinayak J and Narayanan S, "Decoupling by RRDP and TDP concepts", TIMA 2017, 06-08 January, MIT, Madras
7. Ramanuja Vinayak J, S. Narayanan, "a study on centralized control scheme for a class of process applications", ETAE2016, 27-30 December, IIT, Kharakgpur.
8. Devi C. Arati, S. Narayanan, "centralized controller design using state space concept", 6th IFAC symposium on structure and control, Istanbul, turkey, 2016.
9. Devi C. Arati, S. Narayanan and N Sivakumaran, "Decoupling of linear multivariable system using PD output feedback," Indian control Conference (ICC2016), 4-6 Jan. 2016.
10. Devi Arati, S Narayanan and N Sivakumaran, "Complete decoupling of multivariable systems by means of dynamic state feedback", ICSTM, 06-08, May 2015.
11. Devi C. Arati, S. Narayanan, "Dynamic decoupling design for a class of linear multivariable system," IEEE International Conference on Computer Communication and Control (IC4-2015), 10-12 Sep. 2015.

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12. Design of fractional order controller for Biochemical reactor,"Vinopraba, T.;Sivakumaran, N.;Narayanan, S.;Radhakrishnan, T. K.", IFAC Proceedings Volumes (IFAC-PapersOnline), **Volume 46, Year 2013, Pages 205-208**
13. IMC based fractional order PID controller,"Vinopraba, T.;Sivakumaran, N.;Narayanan, S.Proceedings of the IEEE International Conference on Industrial Technology, Year 2011, Pages 71-76
14. Stabilization of commensurate fractional order system with desired damping, S. Narayanan, N. Sivakumaran and T. Vinopraba," Industrial Measurements and Automation, (TIMA2011)",CSIR,CHENNAI, 393-396.
15. Intelligent parameter and state estimation for coal mill in a thermal power plant, Martin Luthur S.K, Raja Singh B., Rominus Valsalam S., Narayanan S. and Radhakrishnan T K.," International conference on system modeling, optimization and advanced process automation(SYMOPA-2010)
16. IMC based PID controller design for gas turbine plant," S. Narayanan, N. Sivakumaran, T. Vinopraba and N. Selvaganesan," Int. conf. on MS '09, Trivandrum.
17. Stabilization using fractional-order PID^α controllers for first order time delay system, "Vinopraba, T.;Sivakumaran, N.;Selvaganesan, N.;Narayanan, S.",ACT 2009 - International Conference on Advances in Computing, Control and Telecommunication Technologies, Year 2009, Pages 725-728.
18. Stability Analysis of First Order Plus Time Delay System under PI & PID Control for Simultaneous Parameter Variation, Vijayan V., Narayanan S., Kanagasabapathy P.and Prakash J, "IEEE INDICON, 2005", 73-77
19. Robust PI Control Design for Non Linear systems, Narayanan S. and Kanagasabapathy P.," International Conference on Instrumentation (INCON 2004)",pune,
20. Robust PI Stabilization of Rosenbrock system, Narayanan S., Kanagasabapathy P.and Prakash J.," 4th International Conference on Trends in Measurement and Automation (TIMA 2004)",Chennai

Papers presented in National Conferences

1. Rajkumar, K.;Narayanan, S.," data driven based control ", Proceedings of National Conference on Recent Trends in Instrumentation and Control (RTIC proceedings) MIT, Chennai.

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2. Devi C. Arati and S. Narayanan Row by Row Decoupling Problem, Proceedings of National Conference on Recent Trends in Instrumentation and Control (RTIC-16), Chennai.
3. Devi C. Arati, S. Narayanan and N.Sivakumaran A study on MIMO Control system design, Proceedings of National Conference on Recent Trends in Instrumentation and Control (RTIC-15), Chennai.
4. PI stabilization for Inverse response Processes, T. Vinopraba, N.Sivakumaran, and S. Narayanan,” Proceedings of CHEMCON 2010”, Chidambaram.
5. Stabilization using fractional order PID controllers for unstable first order plus time delay system, S. Narayanan,” chemcon-2009”, vizag
6. A tutorial on fractional order controller,” S. Narayanan,” National conference on Electrical Engineering and Embedded system (NCEEE08)”, Chennai, India
7. Relative Stability Analysis of First Order Plus Time Delay System under PI Control for Simultaneous Parameter Variation, Narayanan S., Kanagasabapathy P. and Prakash J,” National Conference on Process Identification, Control and Diagnosis (NCPICD2005), Chennai
8. Novel Formulation in Computation of Stabilizing PI Controllers of open loop unstable system with RHP Complex zeros, Narayanan S., Kanagasabapathy P. and Prakash J.,” 2nd National Conference on Instrumentation and Control (ICECON2005)”, Tiruchirappalli, India
9. PI Stabilization of Time Delay System with Desired Stability Margin, Narayanan S., Kanagasabapathy P. and Prakash J.,” National System Conference (NSC2004)”, Vellore.

(C) Books & Monographs:nil