

A.NATARAJAN

Assistant Professor (Sr. Gr.)

Department of Electrical & Electronics Engineering

PSG College of Technology, Coimbatore – 641 004

e-mail: ann@eee.psgtech.ac.in



EDUCATION

DOCTORATE

(On Going)

Anna University, Chennai

Title: SoC Test Scheduling using evolutionary Algorithms

Area of Specialty: VLSI Testing

POSTGRADUATE

(May 2002)

M.E Applied Electronics

Govt. College of Technology, Coimbatore

Bharathiar University, Coimbatore

UNDERGRADUATE

(April 1999)

B E Electrical & Electronics Engineering

Coimbatore Institute of Technology, Coimbatore

Bharathiar University, Coimbatore

EXPERIENCE

19.08.2002 to 31.12.2005 Lecturer (OG) PSG College of Technology , Coimbatore

01.01.2006 to 18.08.2007 Assistant Professor (OG) PSG College of Technology , Coimbatore

19.08.2007 to till date Assistant Professor (S G) PSG College of Technology, Coimbatore

S. No.	Responsibility	Period
1	Tutor 2003-2007 Batch of BE EEE	2003-2007
2	Tutor ME Applied Electronics	2008 – till date
3	In charge UG Computer Centre	2008 - 2011
4	In charge PG Computer Centre	2011 Onwards
6	In charge Anna University, AICTE, and Accreditation committee	December 2010 onwards

7	Department Time table Committee	2004 - 2008
8	Deputy HP-chair, PSGCT	17.12.2007 – 31.12.2009
9	Team Manager for College men Weight lifting & Body building Team to Velammal Engineering College, Chennai. (TIES 2004)	20.09.2004 – 21.09.2004
10	Naval Academy, Lab Manual Preparation	
11	In charge Analog Electronics Lab (EEE)	June 2016 Onwards
12	In charge Applied Electronics Lab (EEE)	2012 – May 2016

COURSES HANDLED

Under Graduate Level

- Electronic Circuits
- VLSI Design
- Linear Integrated Circuits
- Utilisation of Electrical Energy
- Electrical & Electronics Engineering
- Data Structures and Algorithms
- Advanced Data Structures
- Robotics and Automation
- Operating Systems
- Embedded System Design
- Computer Networks
- Basics of Electrical & Electronics Engineering

Post Graduate Level

- VLSI Design
- Theory of MOS Transistors and Circuits
- Advanced Microprocessors
- Data Communication Networks
- Power Semiconductor devices
- Operating Systems
- Algorithms & Analysis
- Micro- electronics and Instrumentation

RESEARCH AREAS

VLSI Design and Testing

PUBLICATIONS

INTERNATIONAL JOURNALS

1. Angappan Natarajan and M.C.Bhuvanewari, "System-on Chip Test Scheduling using Multi-Objective Particle Swarm Optimisation Algorithm" *International Journal of Applied Engineering Research*, ISSN 0973-4562, Volume 10, Number 3 (2015) pp. 7469-7484

NATIONAL CONFERENCES

1. G.Gowthaman and A.Natarajan, "Wireless Transmission and Recorder for Biomedical Signals" *Proceedings of the Second National Conference on Optimization technique in Engineering*

- Science and Technologies, Bannari Amman Institute of Technology, Sathyamangalam (March 28-29, 2007) pp 176 – 184.*
2. S.Shanmugam and A.Natarajan, “ Reconfigurable FPGA based PCI Bus Interfacing” *National Conference on Extreme Engineering and Technological Advancements- XETA-2K7, Jayam College of Engineering and Technology, Dharmapuri (April 4-5,2007) pp 79.*
 3. Sornalekshmi and A.Natarajan, “A Test Scheduling Algorithm Based On Evolutionary Technique” *Proceedings of National Conference on recent trends in Electrical and Electronics Engineering, PSG College of Technology, Coimbatore (April 28, 2011)*
 4. Achudhan.S , A.Natarajan, “Redundancy Management using Duplex Computer For Safety Critical Applications” *Proceedings of National Conference on recent trends in Electrical and Electronics Engineering, PSG College of Technology, Coimbatore (April 28, 2011)*
 5. G.Antony Nelson and A.Natarajan “Efficient Test Wrapper and Test Access Mechanism Co-Optimization for System-On-Chip” *Proceedings of National Conference on recent trends in Electrical and Electronics Engineering, PSG College of Technology, Coimbatore (May 11, 2012) pp. 121-127.*
 6. Karthiha K. and Natarajan A., “Implementation of SOC Test Scheduling using PSO Algorithm” *Proceedings of National Conference on recent trends in Electrical and Electronics Engineering, PSG College of Technology, Coimbatore (May 11, 2012) pp. 141-146.*
 7. Binsin. K. M, A.Natarajan, Bhuvanewari M.C., “System-On Chip Test Scheduling Using NSGA-II” *Proceedings of National Conference on recent trends in Electrical and Electronics Engineering, PSG College of Technology, Coimbatore (May 9, 2014) pp. 131-136.*
 8. Udayasuriyan. N, Natarajan A., Bhuvanewari M.C, “System-On Chip Test Scheduling Multi-Objective Particle Swarm Optimisation” *Proceedings of National Conference on recent trends in Electrical and Electronics Engineering, PSG College of Technology, Coimbatore (May 9, 2014) pp. 174-178.*
 9. Gayathri. N, A.Natarajan, Bhuvanewari M.C. “System-On Chip Test Scheduling Using Non-Dominated Sorting Particle Swarm Optimisation Algorithm”, *Proceedings of the National Conference on Design, Testing, and Applications of Embedded & Power Electronics Systems, PSG College of Technology, Coimbatore(NCDTAEPS'15), (May 8 - 9, 2015) pp. 45 – 50*
 10. Mohammed Faizal K, A.Natarajan, “Input Vector Compression in System on Chip Testing” *Proceedings of the National Conference on Design, Testing, and Applications of Embedded & Power Electronics Systems, PSG College of Technology, Coimbatore (NCDTAEPS'15), (May 8 - 9, 2015) pp. 77 – 81.*
 11. Nithin Jacob, A.Natarajan, “Embedded System Based Real Time Distance Monitoring of In-house Patient in a Hospital” *Proceedings of the National Conference on Design, Testing, and Applications of Embedded & Power Electronics Systems, PSG College of Technology, Coimbatore (NCDTAEPS'15), (May 8 - 9, 2015) pp. 96 – 100.*
 12. N.Gomathi , A.Natarajan “Trouble shooting of power contacts engagement in Motor Control Centre”, *Proceedings of the National Conference on Design, Testing, and Applications of Embedded & Power Electronics Systems, PSG College of Technology, Coimbatore (NCDTAEPS'16), (May 5 - 6, 2016) pp. 80 – 84.*
 13. M. Rineesha , A. Natarajan, “Advanced System on Chip Implementation for Bio Medical Application Using PSoC4_BLE”, *Proceedings of the National Conference on Design, Testing, and Applications of Embedded & Power Electronics Systems, PSG College of Technology, Coimbatore (NCDTAEPS'16), (May 5 - 6, 2016) pp. 91 – 95*
 14. M.Banu Priya, A.Natarajan, “System on Chip Test Data Volume Reduction”, *Proceedings of the National Conference on Design, Testing, and Applications of Embedded & Power Electronics Systems, PSG College of Technology, Coimbatore (NCDTAEPS'16), (May 5 - 6, 2016) pp. 125-129.*
 15. A.Sangeetha, M. C. Bhuvanewari, A. Natarajan, “System on Chip Test Scheduling Using SPEA2”, *Proceedings of the National Conference on Design, Testing, and Applications of*

Embedded & Power Electronics Systems, PSG College of Technology, Coimbatore (NCDTAEPS'16), (May 5 - 6, 2016) pp. 133-138.

16. P.Rajkumar, Mr. A.Natarajan, "Test vector compression based on 2n pattern run length coding in SoC Testing", *Proceedings of the National Conference on Design, Testing, and Applications of Embedded & Power Electronics Systems, PSG College of Technology, Coimbatore (NCDTAEPS'16), (May 5 - 6, 2016) pp. 145-148.*

SEMINARS / CONFERENCES ORGANISED

FDP/Workshop organized:

S.No	Title of the Programme	Organised by	Duration
1.	National Workshop on VLSI Layout Design	Dr.M.C.Bhuvanewari Mr.A.Natarajan Ms.A.Gunasundari	March 21-22, 2014
2.	TEQIP-II Sponsored One Week Faculty Development Programme on Embedded and Real-Time Software & Systems	Mr.A.Natarajan Mr.P.Sivakumar	OCTOBER 12 - 18, 2014
3.	Two Week ISTE workshop on Control Systems	Mr.T.Bogaraj Mr.A.Natarajan(Role as Teaching Assistant)	December 2 - 12, 2014

Conferences Organised:

S.No	Title of the Programme	Role/Organised by	Date/Duration
1.	National Conference on Design, Testing, and Applications of Embedded & Power Electronics Systems, (NCDTAEPS'16)	Coordinator/Department of EEE, PSGCT	May 5 - 6, 2015
2.	National Conference on Design, Testing, and Applications of Embedded & Power Electronics Systems, (NCDTAEPS'15)	Coordinator/Department of EEE, PSGCT	May 8 - 9, 2015
3.	National Conference on Recent Trends in Electrical and Electronics Engineering, (NCRTEEE '14)	Coordinator/Department of EEE, PSGCT	May 9, 2014
4.	National Conference on Recent Trends in Electrical and Electronics Engineering, 2013.	Coordinator/Department of EEE, PSGCT	May 10, 2013
5.	National Conference on Recent Trends in Electrical and Electronics Engineering, 2012.	Coordinator/Department of EEE, PSGCT	May 11, 2012
6.	National Conference on Recent Trends in Electrical and Electronics Engineering, 2011.	Coordinator/Department of EEE, PSGCT	April 28, 2011

Short term Courses/One credit Courses organized with industry collaboration:

S.No.	Title	Organised by	Dates	Handled by
1	04EK03 Digital Design With Verilog HDL	Dr.M.C.Bhuvanewari Mr.A.Natarajan	11.02.2011, 12.02.2011 & 19.03.2011	Mr.Raman Kumar, Analog Devices

2	04EK02 CAD Tools for VLSI Design Automation	Dr.M.C.Bhuvanewari Mr.A.Natarajan	23.09.2011 24.09.2011 & 25.09.2011	Ramesh Dasara. Coreel Technologies
3	12EK03/ 13EK02 Digital Design With Verilog HDL	Dr.M.C.Bhuvanewari Mr.A.Natarajan	14-02-2014, 15.02.2014, & 08.03.2014	Mr.Raman Kumar, Analog Devices
4	12EK03/ 13EK02 Digital Design With Verilog HDL	Dr.M.C.Bhuvanewari Mr.A.Natarajan	22.08.2015, 23.08.2015 & 19.09.2015	Mr.Raman Kumar, Analog Devices

SEMINARS / CONFERENCES ATTENDED

S.No	Title of the Programme	Organised by	Duration
1.	Computer Maintenance	PSG College of Technology	07.09.2002
2.	Linear Algebra and its applications	Department of ECE, PSG College of Technology	07.03.2003 to 09.03.2003 & 14.03.2003 to 16.03.2003
3.	Dote Sponsored FDP on Human Value & Professional Ethics	Department of Mechanical Engineering, PSG College of Technology	25.05.2003 to 07.06.2003
4.	AICTE-ISTE sponsored FDP on New Trends in Biomedical Engineering	Department of EEE, PSG College of Technology	09.11.2003 to 22.11.2003
5.	Workshop on Learn with LabVIEW	VI Centre, Department of EEE, PSG College of Technology	03.02.2005
6.	AICTE-ISTE sponsored FDP on Imparting Learner Trainer Skills for Engineering Faculty	Department of English, PSG College of Technology	09.01.2007 to 02.02.2007
7.	VSI & TI Sponsored workshop on Mixed Signal VLSI Design & Test	Department of EEE, PSG College of Technology	25.04.2007, 26.04.2007
8.	FDP on Software Development Life Cycle and Project Management – Best Practices	TCS, Chennai & PSGCT	23.06.2007 24.06.2007 (2 Days)
9.	Workshop on Mobile Computing Technologies – Symbian OS	Anna University, Trichiarappalli	20.07.2007 21.07.2007 (2 Days)
10.	FDP on Advances in Computer Networking	TCS, Chennai & PSGCT	14.09.2007 15.09.2007 (2 Days)
11.	FDP on Data Warehousing and Data Mining	TCS, Chennai & PSGCT	30.08.2008 (1 Day)
12.	Workshop on Current Trends in Test & Measurements MPLS Solutions	PSGCT & Agilent Technologies	26.03.2009 27.03.2009 (2 Days)
13.	A Tutorial entitled Test Cost and Power Reduction Techniques – 13 th IEEE/VSI VLSI Design and Test Symposium	VSI, Bangalore	08.07.2009 (1 Day)
14.	Tutorial on Evolutionary Multi-	NaBIC-2009 & PSGCT	08.12.2009

	Objective Optimization		(1 Day)
15.	ISO 9001:2008 AWARENESS	PSG College of Technology	23.01.2010 (1 Day)
16.	NPTEL Workshop	NPTEL, IIT Madras	05.04.2010 to 09.04.2010 (5 Days)
17.	FDP on Recent Trends in Data Storage and Disaster Recovery	Dr. Mahalingam College of Engineering and Technology, Pollachi	10.05.2010 to 22.05.2010 (2 Weeks)
18.	National Workshop on “Future Trends in High Performance Computing”	Department of CSE, PSG College of Technology	24.07.2010 To 25.07.2010 (2 Days)
19.	Workshop on “VLSI DESIGN”	Department of CSE, PSG College of Technology and ACCS, Coimbatore chapter	12.08.2010 to 13.08.2010 (2 Days)
20.	Two Day Faculty Development Program on “SOC Design”	VLSI Society of India, PragaTI(TI India Technical University), Visweswaraya Technical University (VTU)	30.10.2010 to 31.10.2010 (2 Days)
21.	AICTE Staff Development Programme on “Mathematical Research Challenges in Engineering Application”	Department of M&CA and EEE, PSG College of Technology	27.11.2010 to 10.12.2010 (14 Days)
22.	The 24 th International Conference on “VLSI Design” & the RASDAT workshop	IIT Madras, Chennai	02.01.2011 to 07.01.2011 (7 Days)
23.	AICTE Staff Development Programme on “VLSI Technology	NIT Calicut, Kozhikode	23.05.2011 to 28.05.2011 (6 Days)
24.	ISTE Workshop on “Software Development Techniques for Teachers of Engineering and Science Institutes”	IIT, Bombay Attended at PSG College of Technology	05.11.2011 to 04.12.2011 (Two Week(5 weekends))
25.	National Workshop on “Mathematics for Electrical and Mechanical Sciences”	PSG College of Technology	02.03.2012 to 03.03.2012 (2 Days)
26.	TEQIP sponsored one week Faculty Development Program on 2D SIGNAL PROCESSING USING WAVELETS	Department of ECE, GCT, Coimbatore	12.09.2012 to 18.09.2012 (7 Days)
27.	Non Traditional Optimization Techniques for Industrial Needs	(TEQIP Sponsored), Department of Mechanical Engineering, GCT, Coimbatore	7 Days (9 th October – 15 th October, 2012)
28.	Research Methodology and Optimization Techniques	(TEQIP Sponsored), Department of Mechanical Engineering, Alagappa Chettiar College of	7 Days (17 th December – 23 rd December

		Engineering & Technology, Karaikudi	, 2012)
29.	Avenues for Advanced Research in Modern Power Electronics and Hybrid Systems	(AICTE Sponsored) , Department of Electrical Engineering, GCT, Coimbatore.	14 Days (15 th May – 28 th May 2013)
30.	Computational Intelligence – An Academic, Industrial and Social Perspective	(AICTE Sponsored) , Department of CSE PSGCT, Coimbatore.	14 Days (30 th May – 12 th June 2013)
31.	TEQIP sponsored FDP on ANALYSIS OF ELECTRICAL AND ELECTRONIC SYSTEMS USING MATLAB AND PSPICE	Department of EEE, PSGCT, Coimbatore	20 th to 26 th June 2013 (7 Days)
32.	Faculty Development Training Programme on “VLSI Design”	Centre for Faculty Development, Anna University, Chennai	23.07.2013 to 27.07.2013 (5 Days)
33.	Preparation of Technical Reports for PG Laboratories	(TEQIP Sponsored) , PSG College of Technology, Coimbatore-4	1 Day (8 th October 2013)
34.	Workshop on Nanofabrication Technologies-2013	Indian Nanoelectronics Users Program (INUP) – IIT Bombay and PSG Institute of Advanced Studies, Coimbatore-4	2 Days (24 th October – 25 th October , 2013)
35.	CNC Technology	(TEQIP Sponsored) , Department of RAE, PSG College of Technology, Coimbatore-4	7 Days (18 th November – 24 th November, 2013)
36.	TEQIP II Sponsored Workshop on “High Performance Networking and Data Security”	Department of IT, PSG College of Technology, Coimbatore-4 and Juniper Networks	30.01.2014 to 31.01.2014 (2 Days)
37.	TEQIP-II Sponsored One Week Faculty Development Programme on Embedded and Real-Time Software & Systems	Department of EEE, PSGCT, Coimbatore	12.10.2014 to 18.10.2014 (7 Days)
38.	Workshop on “Parallel Programming-Basics”	Calligo Technologies	26.06.2015 (1 Day)

SPECIAL LECTURES DELIVERED

S.No	Title of the Programme	Organised by	Date
1.	One credit course on CAD Tools on VLSI Design Automation	Department of EEE, PSGCT	23.09.2011
2.	Training Program for Air Force Technicians	Department of EEE,	--

	on Basics of Computers	PSGCT	
3.	National Workshop on VLSI Layout Design	Department of EEE, PSGCT	21.03.2014

SPONSORED / CONSULTANCY ACTIVITIES

Nil

AWARDS

Nil

MEMBERSHIP OF PROFESSIONAL BODIES

Nil

DOCTORAL GUIDANCE / SUPERVISION

N.A

INDUSTRIAL VISITS WITH THE STUDENTS:

S. No.	Date of Industrial Visit	Name of the Industry and Place	No of days
1	01.02.2003, 02.02.2003	OEN Connectors, Mulanthuruthy, Kerala	2
2	2002-2006 Batch	ELGI Equipments	1
3	20.01.2005, 29.01.2005, & 30.01.2005	ISRO, IFB Ltd., Bangalore	3
4	02.03.2006	LMW, Kaniyur	1
5	04.08.2007, 05.08.2007, & 06.08.2007	CPRI, ISRO, Bangalore, TVS Motors Mysore	3
6	22.02.2007	PRICOL, Periyanaickanpalayam	1