

National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty/ Staff Members

9. Academic/Administrative Responsibilities within the University

S. No.	Position	Faculty/Department/ Centre/Institution	From	To
1	Coordinator, UG and PG Syllabus update	ECE	2000	2015
2	Lab-in-charge	ECE-DSP laboratory	2000	Till date
3	Member of Telephone and Cable TV network committee	Campus Communication Services (CCS)	1998	2001
4	Member of library committee	NIT, Library	2003	2005
5	Member of audio visual committee	NIT	2003 onwards	
6	Member of quality assurance committee for Estate office	NIT-Estate office	2007	2010
7	Member of video conference establishment committee	NIT-CSE dept.	2008	2009
8	Member of purchase committee audio system equipment purchase to various halls of the institute	NIT	2007	2012
9	Additional Convener	Campus Communication Services (CCS)	2001	2016
10	Member of Project team in Digital class room setup.	NIT	2015 onwards	
11	Member of IoT lab governing council	NIT-1981 Alumni setup IoT lab	2015 onwards	
12	Convener	Campus Communication Services (CCS)	2016 onwards	
13	Coordinator Broadcasting	NIT Community Radio Services FM 90.8 Transmitter	2016 onwards	

10. Academic/Administrative Responsibilities outside the University

S. No.	Position	Institution	From	To
1	Member, Board of studies	KSR college of Eng., Tiruchengode	2012 onwards	
2	Member, Board of studies	Govt. college of Eng., Salem	2014 onwards	
3	Member, Doctoral Committee	Vellore Institute of Technology, Vellore	2015 onwards	
4	Member, Board of studies	Govt. college of Technology, Coimbatore	2016 onwards	

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11. Awards, Associateships etc.

S. No.	Year of Award	Name of the Award	Awarding Organization
1	1998	Second prize in the DSP Design contest	IISc, Bangalore
2	2009	Best paper award	ICOICT 2009, International conference
3	2010	Best paper award	NCVESCO 2010, 3rd National Conference on VLSI
4	2011	3 rd position in the Young Scientist category	ICSCCN 2011, International conference
5	2014	Best paper award	MICRO-2014 1 st International conference on Microelectronics

12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
	NIL			

13. Details of Academic Work

(i) Curriculum Development

1. Periodically updated the syllabus for the following courses
 - i) DSP architectures and applications (UG)
 - ii) Low power VLSI circuits (PG)
 - iii) DSP Architectures (PG)
2. Periodically updated the experiments for Digital Signal Processing laboratory course both for UG and PG.
3. Purchased latest equipments for the Signal Processing laboratory

(ii) Courses taught at Postgraduate and Undergraduate levels

Undergraduate Level

Theory courses	Laboratory Courses
<ol style="list-style-type: none"> 1. Semiconductor physics and devices 2. Engineering Electromagnetics 3. Transmission lines and wave guides 4. Digital electronics 5. Signals and systems 6. Communication electronic circuits 7. Digital signal processing 8. Digital signal processor architectures and Applications 9. Applied electronics 	<ol style="list-style-type: none"> 1. Electronic devices lab 2. Communication lab 3. Digital signal processing lab

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Postgraduate Level

Theory courses	Laboratory Courses
1. Analog VLSI circuits 2. Low power VLSI circuits 3. DSP Architectures	1. Digital signal processing lab

(iii) Projects guided at Postgraduate level

M.Tech. Projects guided – 45

M.Sc. Projects guided - 2

(iv) Other contribution(s)

1. The Signal Processing Laboratory was established from scratch in SJB building 2nd floor in 2011.
2. As a Member of purchase committee, purchased the desktop computers for various laboratories from 2002 to 2015.

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
	Nil			

15. Number of PhDs guided

Name of the PhD Scholar	Title of PhD Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award
	Nil		

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

S. No.	Date (s)	Title of Activity	Level of Event	Role	Event Organized by	Venue
1	15.07.1996 – 19-07-1996	Training course on 'CP525/526 Communication Processors'	National	Participant	Siemens Advanced Training Institute	Mumbai
2	07.08.1998 – 18.08.1998	Instruction enhancement programme on 'Designing with Digital Signal Processing'	National	Participant	Indian Institute of Science	Bangalore

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3	02.12.2002 – 13-12-2002	Winter school on ‘Architecture, Programming and Applications of Digital Signal Processors’	National	Participant	Department of ECE, REC, Trichy	Trichy
4	06.09.2004 – 10.09.2004	Short Term course under QIP on ‘Digital VLSI Front end Design’	National	Participant	Department of Computer Science, IIT Madras	Chennai
5	13.09.2004 – 17.09.2004	AICTE-ISTE Short Term course on ‘Advanced aspects of VLSI Design Automation’	National	Participant	Department of Computer Science, IIT Madras	Chennai
6	05.08.2005 - 06.08.2005	Workshop on ‘Micro Electro Mechanical Systems (MEMS)’	National	Participant	Department of ICE, NIT, Trichy	Trichy
7	23.12. 2005 - 24.12. 2005	Workshop on ‘Designing Systems on Programmable Chip (SOPC)’	National	Participant	Department of ECE, NIT, Trichy	Trichy
8	06.12. 2006 - 08.12. 2006	Training programme on ‘Multi-Core Programming for Academia’	National	Participant	Intel Technology India Pvt. Ltd	Bangalore
9	29.12.2006 - 31.12.2006	Workshop on ‘VLSI Implementation of Digital Radio Transceivers’	National	Participant	Department of ECE, NIT, Trichy	Trichy
10	04.01. 2007	Pre-Conference Tutorial on ‘Embedded System on Chip’	National	Participant	International Conference TIMA 2007, NIT, Trichy	Trichy
11	12.02.2007 – 17.02.2002	Short term course under QIP on ‘Analysis of Network Protocols and Design of Network Processor’	National	Participant	Department of CSE, NIT, Trichy	Trichy
12	07.03.2007 - 08.03.2007	Vendor’s Workshop on ‘Signal Processing System Automation’ under SMDP-II	National	Participant	Department of Electrical Engineering, IIT Madras	Chennai
13	13.12.2007 - 14.12.2007	2 nd International Workshop on ‘Interconnect Design and Variability’	National	Participant	VLSI Society of India	Bangalore
14	19.02.2009	Training Program on ‘Computer Networking-Hardware and Software’	National	Participant	Department of CSE, NIT, Trichy	Trichy
15	12.03.2009 - 13.03.2009	Training program on ‘Practical Aspects of Computer Networking’	National	Participant	Department of CSE, NIT, Trichy	Trichy
16	28.05.2015 – 29.05.2015	TEQIP – II sponsored ‘Conclave on Academic Reforms’	National	Participant	NIT, Trichy	Trichy
17	31.10.2015	Workshop on ‘Aspects of Analog and RF Test’	National	Participant	Texas Instruments, India	Bangalore

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Conference Attended

S. No.	Date (s)	Title of Activity	Level of Event	Role	Event Organized by	Venue
1	19.11.2008 – 21.11.2008	TENCON 2008	International Conference	Participant	IEEE Region 10	Hyderabad
2	26.02.2009 – 27.02.2009	ICOICT 2009	International Conference	Participant	Sri Chitra Thirnal College of Eng.	Trivandrum
3	08-01.2010 – 09.01.2010	ICRAES 2010	International Conference	Participant	K.S.R. College of Engineering	Tiruchengode
4	07.07.2011- 09.07.2011	VDAT – 2011	National Symposium	Participant	VLSI Society of Indiaat Wipro Technologies	Pune
5	21.07.2011 – 22-07.2011	ICSCCN 2011	International Conference	Participant	Noorul Islam Centre for Higher Education	Nagercoil
6	11.07.2014 – 13.07.2014	MICRO-2014,	International Conference	Participant	IEEE EDS and IETE, Kolkata chapters	Kolkata

Conference chaired

S. No.	Date (s)	Title of Activity	Level of Event	Role	Event Organized by	Venue
1	11.07.2014 - 12.07.2014	1 st International conference on Microelectronics, circuits and systems	International conference	Chairman	IEEE EDS and IETE, Kolkata chapters	Kolkata

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

S. No.	Title of Activity	Level of Event	Date (s)	Role	Venue
1	Continuing education programme on 'Digital Signal Processor Programming and Applications	Local	08.06.1998 – 24.06.1998 12.06.2000 – 28.06.2000 24.11.2000 – 10.12.2000 15.06.2001 – 30.06.2001 30.11.2001 – 15.12.2001	Co. Coordinator	NIT, Trichy
2	Winter school on 'Architecture, Programming and Applications of Digital Signal Processors' sponsored by ISTE, New Delhi.	National	02.12.2002 – 13.12.2002	Co. Coordinator	NIT, Trichy

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18. Invited Talks delivered

S. No.	Topic	Date	Inviting Organization
1	FDP-Architectures of TMS320C54X DSP and Applications	25.05.2016	Sri Krishna College of Engineering and Technology, Coimbatore
2	TEQIP sponsored work shop-High Speed System Design	07.05.2016	TEQIP sponsored work shop on Evolution of 5G, Dept. of ECE, NIT, Trichy
3	AICTE sponsored QIP- Low Power VLSI Circuits	23.04.2016	Coimbatore Institute of Technology, Coimbatore
4	TEQIP-II sponsored FDP-Advanced DSP Processor Architectures for Signal Processing	11.12.2013	Anna University, BIT Campus, Trichy
5	Workshop- Digital Signal Processing and its applications	28.08.2010	K.L.N. College of Engineering, Madurai.
6	UGC sponsored seminar – Advances in Microprocessors and Microcontrollers	12.02.2010	SRC Autonomous college, Trichy
7	AICTE-ISTE sponsored STTP - Recent Trends in Signal Processing	15.02.2007	K.S.R. College of Engineering, Tiruchengode.
8	Invited talk - Digital Signal Processor under TEQIP	12.01.2007	Govt. College of Engineering, Salem.
9	Workshop – TMS320C50 and TMS320C54X processors	14.11.2006	Thanthai Periyar Govt. Institute of Technology, Vellore.

19. Membership of Learned Societies

S. No.	Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
1	Life Member	ISTE	LM31302 (2001)
2	Member	IETE	M189096 (12.01.2007)
3	Member	IEEE	93401280 (2016)

20. Academic Foreign Visits

Country	Duration of Visit	Programme
	Nil	

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21. Publications

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume (No.)	Page Nos.	Year	Impact Factor
M. Bhaskar , Srinivas Gantasala, B. Venkataramani	Bidirectional differential on chip wave pipelined serial interconnect with surfing	Micro System Technologies, Springer	DOI 10.1007 /s00542 -015- 2463-1	-	2015	
M.Bhaskar and B.Venkataramani	Differential voltage mode transceiver for on-chip global interconnects	Journal of Low Power Electronics, American Scientific Publishers	Vol. 10, No.2	-	2014	
Bhaskar. M, Srinivas Gantasala, Venkataramani. B	Dynamic Self controllable surfing for differential on-chip wave pipeline serial interconnect,	WSEAS Transactions on Circuits and Systems	Vol. 13	pp. 117- 128	2014	
Bhaskar. M and Venkataramani. B	Transceiver for Differential Wave Pipe-Lined Serial Interconnect with Surfing	International Journal of Electrical, Electronic Science and Engineering	Vol. 8, No. 1	pp. 155- 162	2013	
Bhaskar. M, Jaswanth. A and Venkataramani. B	Design of a Novel Differential on-chip Wave-pipelined Serial interconnect with surfing	Elsevier, Microprocessor and Microsystems	37	pp. 649- 660	2012	

(B) Conferences/Workshops/Symposia Proceedings

1) **International Conferences**

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Venue	Year
G.Anusha, P.Venkateswarlu, P.Murugeswari, M.Bhaskar&B.Venkataramani	‘An Input Multiplexed current mode Transmitter for on-chip global Interconnects’	TENCON 2008, IEEE Region 10 International conference at	Hyderabad	2008
P.Murugeswari, G.Anusha, P.Venkateswarlu, M.Bhaskar&B.Venkataramani	‘A Wide band voltage mode sense amplifier receiver for high speed Interconnects’	TENCON 2008, IEEE Region 10 International conference	Hyderabad	2008
Venkateswaralu, M.Bhaskar& B.Venkataramani	‘Quasi-resonant Interconnects: Programmable data rate implementation using Active Inductor’	ICOICT 2009, International conference sponsored by TEQIP	Trivandrum	2009

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Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Venue	Year
Kirankumar, M.Bhaskar, R.Thilagavathy& B.Venkataramani	'A Novel Low power multilevel current mode Interconnect system ineffective to supply voltage variations'	ICOICT 2009, International conference sponsored by TEQIP	Trivandrum	2009
M.Bhaskar, B.Venkataramani& G.Praveen	'Implementation of Asynchronous Transceivers for on-chip Interconnects using Self-clocked Circuits in 0.18 μm '	International Conference on Recent Advances in Electrical Sciences	K.S.R. College of Engineering, Tiruchengode	2010
Karutharaja.V, M.Bhaskar& B.Venkataramani	'Synchronization of On- chip Serial Interconnect transceivers using Delay Locked Loop (DLL)	International conference on Signal Processing, Communication, Computing and Networking Technologies	Noorul Islam Centre for Higher Education, Nagarcoil	2011
V.MohanaVidya, R.Thilagavathy& M.Bhaskar	'Low Power, High Performance Current mode Transceiver for Network- on-Chip Communication'	International conference on Signal Processing, Communication, Computing and Networking Technologies	Noorul Islam Centre for Higher Education, Nagarcoil	2011
M.Bhaskar, D.Parthiban& B.Venkataramani	'Design and Implementation of Surfing scheme to Wave pipelined Differentialserial Interconnect'	IEEE-RAICS, Recent Advances in Intelligent Computational Systems	Trivandrum	2011
M.Bhaskar, D.Sridevi& B.Venkataramani	'A Low Power, Low Latency Tunable Quasi- Resonant Interconnect using Active Inductor'	IEEE-RAICS, Recent Advances in Intelligent Computational Systems	Trivandrum	2011
Bhaskar.M, Prasannakumar.D& Venkataramani.B	'Design of Differential voltage mode Transmitter for On-chip serial link based on Method of Logical Effort'	IEEE-ICCCNT	Coimbatore	2012
Bhaskar.M, Srinivas Gantasala and B. Venkataramani	'Dynamic Self controllable Surfing for Differential on- chip wave-pipelined serial interconnect'	1 st International conference on Microelectronics, Circuits and Systems (MICRO- 2014)	Kolkata	2014
SrivigneshPss and Bhaskar. M	'RFID and Pose Invariant Face Verification Based Automated Classroom Attendance System'	IEEE, Microcom	NIT Durgapur	2016

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Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Venue	Year
Reishi Kumar, Anamika Sharma, M.Bhaskar	'Reference table-based cache design using LRU replacement algorithm for Last Level Cache'	IEEE, TENCON 2016	Singapore	2016

2) National Conferences

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Venue	Year
M. SharathBimba, M. Bhaskar& B. Venkataramani	'Implementation of Active Inductor for Quasi-Resonant Interconnect'	NCVESCO 2010, 3rd National Conference on VLSI, Embedded Systems, Signal Processing & Communication Technologies	Vinayaka Mission University, Chennai	2010
Nitin Bhomle , M. Bhaskar& B.Venkatramani	'An Input Multiplexed Current mode Transmitter with Modified driver for on-chip serial Interconnect system'	NCSCV 2010, 2 nd National Conference on Signal Processing Communications & VLSI Design	Anna University, Coimbatore	2010
T.Gvardhanarao, M.Bhaskar& B.Venkataramani	'Differential voltage mode Sense amplifier with Current mirror load as receiver for on-chip Interconnect Serial links'	NCSCV 2010, 2 nd National Conference on Signal Processing Communications & VLSI Design	Anna University, Coimbatore	2010
K.Venkatesh Reddy, M.Bhaskar& B.Venkataramani	'Implementation of Multi-phase Delay Locked Loop for On-Chip serial link	NCSCV 2010, 2 nd National Conference on Signal Processing Communications & VLSI Design	Anna University, Coimbatore	2010
Karutharaja.V, M.Bhaskar& B.Venkataramani	'Implementation of High speed Delay Locked Loop (DLL) for On-chip Serial Interconnect transceivers'	NCVD 2011, National conference on Advancements and Future trends in VLSI Design	Kalasalingam University, Virudhunagar	2011
M.Bhaskar, D.Parthiban& B.Venkataramani	'Design and Implementation of Differential serial interconnect using Wave pipelining and Surfing'	V DAT 2011, 15 th VLSI Design and Test Symposium at Wipro Technologies	Pune	2011

(C) Books & Monographs

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Author(s)	Title of Book/Monograph	Name of Publishers	Year of Publication	ISSN/ISBN Number
M. Bhaskar and B. Venkataramani	'Digital Signal Processors, Architecture, Programming and Applications	Tata McGraw Hill, New Delhi	1 st Edition: 2002 2 nd Edition: 2010	

BRIEF PROFILE

I, Dr. M.Bhaskar, Associate Professor, Department of Electronics and Communication Engineering, National Institute of Technology, Tiruchirappalli-15. I completed B.E. degree in Electronics and communication Engineering, M.E. in Microwave and Optical Engineering and Ph.D. in VLSI Design. I have 23 years of teaching experience and 17 years of research experience. In the undergraduate level, handled 18 theory courses and 6 laboratory courses and in the postgraduate level 5 theory courses and one laboratory course. In UG level 10 projects and PG level 47 projects are guided by me and currently supervising 4 full-time Ph.D. scholars in the area of VLSI Design. For UG students mentored 10 internship projects.

I am more fascinated to do hardware based real time projects. Publications include 5 Journal papers, 13 international conference papers and 7 national conference papers and one book 'Digital Signal Processors and Application' in Tata McGraw Hill. Won many best paper awards and attended large number of workshops, training programs and conferences.

My areas of research are DSP Architectures, Hardware Implementation of Signal processing algorithms, Low Power VLSI Design, Analog and Digital VLSI Design and High speed on-chip transceiver design.

I have expertise in the purchase, installation and operation of various equipments and software for the various laboratories. Also I have skill in purchase, installation and maintenance of telephone exchanges and cable TV networks and community FM station.