

National Institute of Technology, Tiruchirappalli:

Performa for CV of Faculty

Curriculum Vitae

Dr. E.S. Gopi has authored six books, of which five have been published by Springer. He has also contributed 3 book chapters to books published by Springer. He has several papers in international journals and conferences to his credit. He has 15 years of teaching and research experience. He is currently Assistant Professor, Department of Electronics and Communication Engineering, National Institute of Technology, Trichy, India. He has 156 citations with h-index 5 (based on Google Scholar). His books are widely used all over the world.



His research interests include pattern recognition, digital signal processing and biologically inspired algorithms. The India International Friendship Society (IIFS) has awarded him the “Shiksha Rattan Puraskar Award” for his meritorious services in the field of education. The award was presented by Dr. Bhishma Narain Singh, former Governor, Assam and Tamil Nadu, India. He is also awarded with the "Glory of India Gold Medal" by International Institute of Success Awareness. This award was presented by Shri Syed Sibtey Razi, former Governor of Jharkhand, India. He was also awarded with "Best Citizens of India 2013" by The International Publishing House

1. Name: **Dr. E.S. Gopi**
2. Designation: **Assistant Professor**
3. Office Address:
 Department of Electronics and Communication Engineering
 National Institute of Technology Trichy
4. Telephone (Direct) (Optional): 914312503314
5. Email (Primary): esgopi@nitt.edu
6. Field(s) of Specialization: **Pattern recognition, Digital signal processing, Computational Intelligence**
7. Employment Profile

Job Title	Employer	From	To
Assistant professor	National Institute of Technology, Tiruchy-15	2006	Till date
Senior Lecturer	Sri Venkateswara College of Engineering, Chennai	2003	2006
Lecturer	Sri Venkateswara College of	2001	2003

**National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty**

	Engineering, Chennai		
Lecturer	Sri Muthukumuran Institute of Technology, Chennai	1999	2001
Lecturer	Raja Rajeswari Engineering College, Chennai	1998	1999

8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D.	National Institute of Technology	27 th Feb 2015	NA	Investigations on Linear Discriminative Analysis
M. E.	Anna university	2005	First class with Distinction	Communication Systems
B.E.	Madurai Kamaraj University	1998	First class with Distinction	Electronics and Communication Engineering
XII	Vailankanni Matriculation Higher secondary school, Chennai	1994	83%	NA
X	Government Higher Secondary School, Kodambakkam, Chennai	1992	78%	NA

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
Co-ordinator	Pattern recognition and computational intelligence laboratory and the newsletter COMPSIGNITT	2015	Till date
Programme member from November 2016	Community Radio Station FM 90.8	November 2016	Till date
Co-coordinator	Instrumental for the NBA activities for M.Tech. (Communication Systems)	2016	

National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty

DPEC member	M.Tech. (Communication systems	2012	2015
BOS co-ordinator	ECE	2015	

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2013	Best citizens of India 2013	The International publishing house
2013	"Shiksha Rattan Puraskar Award", certificate of excellence by Dr. Bhishma Narain Singh, Former Governor Assam and Tamil Nadu at India International Centre, New Delhi on 9th Feb 2013.	The International publishing house
2013	Glory of India Gold Medal" by presented by Shri Syed Sibtey Razi, Former Governor of Jharkhand , at India International Centre, New Delhi on 9th Feb 2013	The International publishing house
2010	Young Scientist travel grant by Department of science and technology, SERC division to present paper in the conference held at Singapore during 26th to 28th Feb 2010	DST

13. Details of Academic Work Curriculum Development

- BOS coordinator for the year 2015
- Introduced the following courses
 1. Pattern recognition and Computational Intelligence for PG (Communication System)
 2. Linear algebra and Stochastic process for PG (Communication Systems)
 3. Digital signal processing for wireless communication (UG)
 4. Digital signal processing for medical imaging (UG).
- (i) Courses taught at Postgraduate and Undergraduate levels
 - UG: Statistical theory of communication
 - Pattern recognition
 - Image processing
 - PG: Linear algebra and stochastic process
 - Digital Image processing

National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty

Pattern recognition and the computational intelligence

(ii) Other contribution(s)

- Video lectures created for the following courses
 - (1) Statistical Theory of Communication
 - (2) Digital Communication
- Co-ordinator for the Pattern recognition and the Computational Intelligence laboratory
- Co-ordinator for the Newsletter COMPSIG
- Resource (Audio slides) created using 3rd year ECE students during 2016.
- Implemented flexible curriculum for the following subjects
 - (a) Global elective Pattern recognition and computational intelligence
 - (b) Statistical theory of communication
 - (c) Linear algebra and stochastic process.
- Handling Research methodology (Matlab) for Ph.D. Scholars (ECE/EEE/ICE) from 2007 onwards.

(iii) Projects guided at Postgraduate level (Sample topics)

LIST OF PROJECTS GUIDED (PG)		
No	Title of the project	Name of the student
1	Musical notes identification from vocal song recordings	Samuel Cherukutty Cheruvathu (2015)
2	Classification of grown-up facial features from childhood facial features using neural network	Kshitij H. Rachchh (2015)
3	Musical notes identification using Digital signal processing	Patel Jay Kaushikkumar (2014)
4	Real time medical data classification using Genetic algorithm based KLDA	Padarthi haribabu (2014)
5	Signal processing approach for music synthesis using birds sounds	2013
6	Nondestructive imaging of solid objects	M.Vishnuvardhan reddy (2013)
7	Modelling of wind instruments using finite element method	Anish.T .T (2013)
8	Non Destructive Imaging of Solid Objects	M.Vishnu vardhan reddy (2012)
9	Signal processing approach for MUSIS synthesis using Birds sounds	Hemant Sharma (2012)
10	Scatter matrix versus proposed distance matrix for appearance based face recognition	M.Vishnu vardhan reddy (2012)
11	Generalized kernel function for kernel discriminant analysis using particle swarm optimization	Hemant sharma (2012)
12	DNA Sequences classification based on Hidden Markov Model	E.Praneeth kumar reddy (2011)
13	Depth estimation of a single image	Ashok Bandi (2011)

National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty

14. Details of Major R&D Projects

Project submitted to SERB and it is in evaluation stage:

Details:

Proposal (File No : EMR/2016/002172) has been submitted. on 28-Jul-2016 05:01 PM

This proposal is in Accepted for Evaluation stage as on 16th November 2016.

15. Number of PhDs guided

List of students currently perusing Ph.D.

1. Rajasekhar (2016 onwards)
2. G.J. Brinda (2015 onwards)
3. Neema (2015 onwards)

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

Date (s)	Title of Activity	Level of Event (International/ National/ Local)	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	Event Organized by	Venue
12-13 August ,2016	ICIS 2016	International conference	Chair person	Sponsored By TEQIP II Dept of Computer Science College of engineering, Cherthala	Le-meridian at Cochin, Kerala

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
Guest lecture by Prof. K.K.Biswas, IIT Delhi	Local	October 16 th 2016	Co-ordinator	EEE Auditorium, NIT Trichy
Guest lecture by Prof. Dr. Andrew Thangaraj	Local		Co-ordinator	EEE Auditorium, NIT Trichy

18. Invited Talks delivered

- FDP and other guest lectures in many colleges such as Anna University, Trichy section, College of Engineering Cherthala, Kerala, etc.

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty

20. Academic Foreign Visits

Country	Duration of Visit	Programme
Singapore	During 2011	To present paper in the International conference on
Spain	During 2004	To present paper in the International conference on Independent Component Analysis, Granada, Spain.

21. Publications

(A) **Refereed Research Journals:**

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
E.S. Gopi	Digital image forgery detection using artificial neural network and independent component analysis	Elsevier journal on Applied Mathematics and Computation	Volume 194, Issue 2	540-543	2007	1.345
E.S. Gopi, P.Palanisamy	Neural network based class-conditional probability density function using kernel trick for supervised classifier	Elsevier journal on neuro computing	Vol.154	225-229	2014	2.392
E.S.Gopi, P.Palanisamy	Maximizing Gaussianity using kurtosis measurement in the kernel space for kernel linear discriminant analysis	Elsevier journal on neuro computing	Vol.144	329-337	2014	2.392
E.S.Gopi, P.Palanisamy	Formulating particle swarm optimization based membership linear discriminant analysis"	Elsevier journal on swarm intelligence and evolutionary	Vol.12	65-73	2013	2.963

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty

		computati on				
E.S.Gopi, P.Palanisamy	Fast computation of PCA bases of image subspace using its inner-product subspace	Elsevier journal on Applied Mathematics and Computati on	Vol.219-12	6729-6732	2013	1.345

(B) Conferences/Workshops/Symposia Proceedings

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page numbers	Conference Theme	Venu e	Year
Published by Elsevier						
H. Sharma, E.S. Gopi	Signal processing approach for music synthesis using bird's Sounds	Elsevier journal on Procedia Technology	Volume 10, Pages 287-294,,			2013
Vinoth S E S Gopi	Neural network modeling of color array filter for digital forgery detection using kernel LDA'	Elsevier journal on Procedia Technology	Volume 10, Pages 287-294			2013,
Jay.K.Patel E.S.Gopi,	Musical Notes identification using Digital signal processing	Elsevier journal on procedia computer science	Volume 57, Pages 876–884			2015
H.B. Padarathi E.S.Gopi	Medical data classifications using Genetic algorithm based Generalized Kernel Linear Discriminant analysis	Elsevier journal on procedia computer science	Volume 57Pages 868–875,			2015
E.S.Gopi, P.Palanisamy	Formulating Particle Swarm Optimization based Generalized Kernel Function for Kernel-Linear Discriminant Analysis	Elsevier journal on Proceedia technology	Vol.6, pp.517-525,			2013
Published by SPIE						
E.S.Gopi	A novel approach to transformed	SPIE 7546, Second	75461Z doi: 10.1117	Digital Image Processing	Singapor	26-28 Feb 2010

**National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty**

	biometrics using successive projections	International Conference on Digital Image Processing	<u>/12.853170</u>		e	
Published by IEEE						
E.S.Gopi, Sylvester Vijay R, Vasudha Rangarajan,L akshmanan Nataraj	Brain computer Interface Analysis using Wavelet Transformations and Auto Regressive Coefficients	ICECE	IEEE Proceedings		Bangladesh	2006
E.S.Gopi, N.Lakshmanan, T.Gokul,S.K umarGanesh, Prerak.R.Sha h	Digital Image forgery detection using Artificial Neural Network and Autoregressive Coefficients	IEEE		Electrical and Computer Engineering	Canada	2006
E.S.Gopi, Poorani Vijayakumar, Shyamala Pandiyan,Pre ethi kannan,Revat hy	A Novel Approach to Transformed Biometrics using ANN			Intelligent Sensing and Information Processing	Bangalore	2005
E.S.Gopi, Vibha Viswanathan, Priya Sankaralinga m,Sowmya ramakumar	A New approach to create high level features from low level features of audio clips			Communication, Circuits and Systems	HongKong, China	2005
E.S.Gopi, E. S.Sathya	SVM Approach to number plate recognition and Classification System			Intelligent Sensing and Information Processing	Chennai, India	2005
E.S.Gopi, S.R.Nirmala, Shreyans Chopra,N.H. Kaliprasad	Karhunen-Leove transform based hand identification system			Intelligent Sensing and Information Processing	Chennai, India	2005

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty

(C) Books & Monographs

Books:

Sole Author	Title of Book/Monograph	Name of Publishers	Year of Publication	ISSN/ISBN Number
E.S. Gopi	Digital signal processing for wireless communication using Matlab	Springer	2015	978-3-319-20651-6
http://www.springer.com/us/book/9783319206509				
E.S. Gopi	Digital Speech processing using Matlab	Springer	2014	978-81-322-1676-6
http://www.springer.com/engineering/signals/book/978-81-322-1676-6				
E.S. Gopi	Digital signal processing for medical imaging using Matlab	Springer	2012	978-1-4614-3139-8
http://www.springer.com/engineering/signals/book/978-1-4614-3139-8				
E.S. Gopi	Mathematical summary for digital signal processing applications with Matlab	Springer	2010	978-90-481-3746-6
http://www.springer.com/engineering/signals/book/978-90-481-3746-6				
E.S. Gopi	Algorithm Collections for Digital Signal Processing Applications Using Matlab	Springer	2007	978-1-4020-6409
http://www.springer.com/in/book/9781402064098				
E.S. Gopi	Digital Image processing using Matlab	Scitech publications	2007	9788183715867
http://www.scitechpublications.com/digital-image-processing-using-mat-lab.html				

Chapter in the Book

Authors	Title of the Chapter	Name of Publishers	Year of Publication	ISSN/ISBN Number
E.S. Gopi, R. Lakshmi, N. Ramya, S.M.Sherren Farzana	Music indexing using Independent Component Analysis with pseudo-generated sources, Independent Component Analysis and Blind Signal Separation	Springer	2004	978-3-540-23056-4
http://link.springer.com/chapter/10.1007/978-3-540-30110-3_156				
E.S. Gopi, P.Palanisamy	Scatter Matrix versus the Proposed Distance Matrix on Linear Discriminant Analysis for Image Pattern Recognition	Springer	2014	978-3-319-07352-1
http://link.springer.com/chapter/10.1007/978-3-319-07353-8_12				