

National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY

---

**Curriculum Vitae**



1. Name : Dr.P PALANISAMY
2. Designation : PROFESSOR
3. Office Address: : Department of ECE, NIT, Trichy-620015
4. Telephone (Direct) : 0431-2503312
5. Email (Primary) : palan@nitt.edu
6. Field(s) of Specialization: : Signal and Image Processing

7. Employment Profile

Job Title	Employer	From	To
Professor	NIT Trichy	12.03.2018	Till Date
Associate Professor	NIT Trichy	24.04.2011	11.03.2018
Assistant Professor	NIT Trichy	01.01.2006	23.04.2011
Senior Lecturer	NIT Trichy	30.07.2003	31.12.2005
Lecturer	REC, Trichy	30.07.1998	29.07.2003
Junior Scientific Officer	REC, Trichy	09.03.1997	29.07.1998
Research Assistant	REC, Trichy	20.12.1995	08.03.1997

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

Examination/ Degree	Board / University	Division/ Grade	Subjects	Remarks
Ph.D.	NIT, Trichy	-	Array Signal Processing	<b>Awarded Gold Medal for Best Thesis Award</b>
M.E.	NIT, Trichy	I Class with Distinction	Communication Systems	<b>First Rank Holder</b>
B.E.	Bharathiar University	I Class	Electronics and Communication	<b>University Rank Holder</b>
HSC	State Board, TN	I Class	General	-
SSLC	State Board, TN	I Class	General	-

**National Institute of Technology, Tiruchirappalli:**  
**Performa for CV of Dr.P.PALANISAMY**

---

9. Academic/Administrative Responsibilities within the University

<b>Position</b>	<b>Faculty/Department/Centre/Institution</b>	<b>From</b>	<b>To</b>
Associate Dean	Office of Dean (Academic)	10.10.2012	23.11.2015
Training Officer	Training and Placement Department	01.11.2010	Till Date
Convener	Campus Communication Service	30.06.2020	Till Date
Member	Industry Institute Interaction Cell	17.07.2020	Till Date
Associate Convener	Campus Communication Service	12.07.2016	29.06.2020
Chairperson, PG Admission Committee	Office of Dean (Academic) (All PG Admissions)	15.01.2018	28.01.2020
Member, PG Admission Committee	Office of Dean (Academic) (All PG Admissions)	20.02.2013	14.01.2018
Coordinator, CCMT-2010 & CCMT-2011	Centralized Counselling for Common M.Tech.. Admissions	2010	2011
Member, CCMT	Centralized Counselling for Common M.Tech./M.Arch. Admissions for all NITS	2012	2018
Technical Committee Member, CCMT-2019	Centralized Counselling for Common M.Tech./M.Arch. Admissions for all NITS	2019	2019
Warden	Hostels and Messes	01.01.2007	15.06.2009
Library Incharge	Department Library, ECE Department	03.01.2007	Till Date
Member	Department Project Evaluation Committee	2004	2012
Member	Board of Studies	2003	Till Date
Member	MIS Implementation Team	Feb-2014	2017

10. Academic/Administrative Responsibilities outside the University

<b>Position</b>	<b>Institution</b>	<b>From</b>	<b>To</b>
Member, Academic Council	Govt. College of Engineering, Salem	2019	Till Date
Member, Governing Council	KSR College of Technology, Tiruchengode	2019	Till Date
Member, Academic Council	Kongu Engineering College, Perundurai	2020	Till Date
Member, Academic Council	Kongunadu Engineering College, Thottiam, Trichy	2019	Till Date
Member, BoS	JNTU University, Anapatur.	2019	Till Date

**National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY**

Member, BoS	Krishna University, AP	2020	Till Date
Member, BoS	Kalasalingam Academy of Research and Education	2021	Till Date
Member, BoS	Karunya University, Coimbatore	2018	Till Date
Member, BoS	Sri Ramakrishna Engineering College, Coimbatore	2018	Till Date
Member, BoS	Sri Shakthi Institute of Engineering & Technology, Coimbatore	2019	Till Date
Member, BoS	Erode Senguntar Engineering College, Perundurai	2019	Till Date
Member, BoS	Dhanalakshmi Srinivasan Engineering College, Perambalur	2020	Till Date
Member, BoS	Kumaraguru College of Technology, Coimbatore	2017	Till Date
Member, BoS	Nandha Engineering College, Perundurai	2017	Till Date
Member, BoS	Vellalar College of Engineering and Technology, Thindal, Erode.	2017	2018
Member, BoS	Periyar Maniammai University, Vallam	2015	2017
Member, BoS	KSR College of Engineering	2013	2014
Member, BoS	Vivekanandha College of Engineering for Woemen	2015	2017
Member, BoS	Madanapalle Institute of Technology & Science	2016	2017

11. Awards, Associateships etc.

<b>Year of Award</b>	<b>Name of the Award</b>	<b>Awarding Organization</b>
2009	Best Ph.D. Thesis Award	NIT Trichy
2012	Best Paper Award in International Conference on Information Processing	Bangalore University
2008	Best Paper Award in International Conference on Cognition and Recognition	PES College of Engineering, Mysore

12. Details of Academic Work

**(i) Curriculum Development**

1. Technical Committee Member for CAR 2015 (Conclave on Academic Reforms)
2. Introduced New Elective Courses (for both UG and PG)
3. Established New Signal and Image Processing Laboratory
4. Modernizing and maintaining of the PG Project and Research Laboratory
5. Procured Software and Systems for Laboratory

National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY

---

6. Introduced Software based Simulation for Hardware based experiments for “Signal Processing Laboratory”

**(ii) Courses taught at Postgraduate and Undergraduate levels,  
Post Graduate Level**

1. Advanced Digital Signal Processing (PG)
2. Advanced Digital Communication (PG)
3. Detection and Estimation (PG)
4. Spectral Analysis of Signals (PG)
5. Array Signal Processing (PG)
6. Digital Signal Processing (PG)

**Undergraduate Level**

1. Signals and Systems (UG)
2. Digital Signal Processing (UG)
3. Statistical Theory of Communication (UG)
4. Advanced Digital Signal Processing (UG)
5. Statistical Signal Processing (UG)
6. Digital Communication (UG)
7. Satellite Communication (UG)
8. Error Control Coding (UG)
9. Control Systems (UG)
10. Electronics Devices and Circuits Lab (UG)
11. Digital Electronics Lab (UG)
12. Digital Signal Processing Lab (YG)

**(iii) Projects guided at Postgraduate level**

**Please see Annexure – I (page No.16)**

**Other contribution(s)**

1. Department Project Evaluation Committee Member for M.Tech (Communication Systems) 2020 onwards
2. Department Ph.D. Admission Committee Chairperson for 2020
3. Staff Advisor for 2017 batch ECE students
4. PAC for 1<sup>st</sup> and 2<sup>nd</sup> Semester M.Tech(VLSI System)
5. PAC for 4<sup>th</sup> Semester M.Tech (VLSI System)
6. PAC for 6<sup>th</sup> and 8<sup>th</sup> Semester UG
7. Staff Advisor/Coordinator for Ist Semester M.Tech(Communication Systems) during 2007-08
8. Staff Advisor/Coordinator for 2<sup>nd</sup> Semester M.Tech(Communication Systems) from 2001 to 2008
9. Staff Advisor/Coordinator for 3<sup>rd</sup> Semester M.Tech (Communication Systems) from 2001 to 2010
10. Staff Advisor/Coordinator for 4<sup>th</sup> Semester M.Tech (Communication Systems) since 2003 to 2009
11. Staff Advisor/Coordinator for 3<sup>rd</sup> and 7<sup>th</sup> Semester
12. Project Committee member for M.Tech(Communication Systems) 2004 to 2015
13. Project Committee member for UG since 2003 to 2015

**National Institute of Technology, Tiruchirappalli:**  
**Performa for CV of Dr.P.PALANISAMY**

---

14. PG admission coordinator and committee member since 1999 in the department level
15. Department Library incharge since January 2007
16. Doctoral Committee Member
17. Purchase committee member

**8. Details of Major R&D Projects**

- (i) 4D Trajectory based Air Traffic Flow Management System using System Wide Information Management (4DADFMS) (2020-2021)
- (ii) Development of Traffic Monitoring Analytics and Under Vehicle Scanning Inspection System-Funded By VANDI Technologies PTE LTD, Singapore (2018-2021)
- (iii) Research project titled “Sensor-level Adaptive Noise Cancellation for Active Sonar Using Estimated Reference Noise” carried out and submitted the report to DOE, Govt. of India in November 1998. (Report:DOE/NRC/TDP-141/TR-2, November 1998).
- (iv) Research project titled “Signal-Subspace Algorithm for DOA Estimation using a Two-Dimension Array of Sensors” and submitted the report to DOE , Govt. of India in February 1999. (Report : DOE/NRC/TDP-141/TR-3 , February 1999) .

**8. Number of PhDs guided**

<b>Name of the PhD Scholar</b>	<b>Title of PhD Thesis</b>	<b>Role(Supervisor/ Co-Supervisor)</b>	<b>Year of Award</b>
Issac Niwas	Complex Wavelet based Multiresolution Texture Analysis of Microscopic Images for Breast Cancer Diagnosis	Supervisor	2013
Varun P Gopi	Reconstruction of Magnetic Resonance and Computed Tomography Images using Compressed Sensing Techniques	Supervisor	2014
E.S. Gopi	Investigations on Linear Discriminant Analysis	Supervisor	2015
P. V. Sudeep	Statistical Methods for Noise Reduction in Magnetic Resonance Imaging, Medical Ultrasound and Optical Coherence Tomography Images	Supervisor	2016
S.Deivalakshmi	Investigation on Salt-and-Pepper and Speckle Noise Removal using Multiresolution based Image Denoising and Dynamic Stochastic Resonance Based Enhancement Techniques	Supervisor	2017
C. Srinivasarao	Angle estimation of coherent targets in MIMO radars using EM vector sensors	Supervisor	2018

**National Institute of Technology, Tiruchirappalli:**  
**Performa for CV of Dr.P.PALANISAMY**

S. Karthick	Joint DoD and DoA Estimation of Coherent Targets in Bistatic Mimo Radar with Electromagnetic Vector Sensors	Supervisor	2020
K. Gowri	Two-Dimensional Direction of Arrival Estimation of Coherent and Noncircular Signals using sparse and Parallel Arrays	Supervisor	2020

8. 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
05.11.2017 to 08.11.2017	IEEE Conference TENCON 2017	International	Chairperson and Paper Presenter	Malaysia University	Penang, Malaysia
22.11.2016 to 25.11.2016	IEEE Conference TENCON 2016	International	Chairperson and Paper Presenter	NTU, Singapore	Singapore
30.9.2013 to 4.10.2013	Signals and Systems	National	Participant	IIT, Khragpur	IIT, Kharagpur
10.8.2012 to 12.8.2012	Conference on Information Processing	International	Paper Presenter	Bangalore University	Bangalore
19.02.2012 to 21.02.2012	Information, Communication and Signal Processing	International	Chairperson and Paper Presenter	WASET	Kauala Lumpur, Malaysia
08.01.2010 to 09.01.2010	Recent Advancements in Electrical Sciences	International	Chairperson and Paper Presenter	KSR College of Engineering	Tiruchengode, Tamil Nadu
06.07.2009 to 10.07.2009	Signals, Systems and Signal Processing	International	Participant	IUCEE	Mysore
19.11.2008 to 21.11.2008	IEEE Conference TENCON 2008	International	Paper Presenter	University of Hyderabad	Hyderabad

**National Institute of Technology, Tiruchirappalli:**  
**Performa for CV of Dr.P.PALANISAMY**

16.06.2008 to 28.06.2008	Fuzzy Logic: Theory and Engineering Practice	National	Participant	NIT, Trichy	NIT, Trichy
14.03.2008 to 15.03.2008	Data Analytics and Data Mining	National	Participant	NIT, Trichy	NIT, Trichy
25.02.2008 to 29.02.2008	Advanced Tools and Techniques for Research in Engineering Problems	National	Participant	NIT, Trichy	NIT, Trichy
18.02.2008 to 22.02.2008	Architecture, Algorithms and Applications for Digital Signal Processing	National	Participant	IISc, Bangalore	IISc, Bangalore
28.01.2008 to 01.02.2008	Electrical Machines and Power Electronics in Renewable Energy Systems	National	Participant	NIT, Trichy	NIT, Trichy
04.01.2008 to 06.01.2008	Signal Processing, Communications and Networking	International	Paper Presenter	Anna University	Chennai
17.09.2007 to 18.09.2007	Computational Fluid Dynamics	National	Participant	NIT, Trichy	NIT, Trichy
22.02.2007 to 24.02.2007	Signal Processing, Communications and Networking	International	Paper Presenter	Anna University	Chennai
04.02.2007 to 06.02.2007	Nanomaterial and its Applications	International	Participant	NIT, Trichy	NIT, Trichy
10.01.2007 to 13.01.2007	Speech and Audio Processing	International	Participant	IISc, Bangalore	IISc, Bangalore
04.01.2007 to 06.01.2007	Trends in Industrial Measurements and Automation (TIMA)	International	Participant	NIT, Trichy	NIT, Trichy
29.12.2006 to 31.12.2006	VLSI Implementation of Digital Radio Transceivers	National	Participant	NIT, Trichy	NIT, Trichy

**National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY**

07.12.2006 to 09.12.2006	Signal and Image Processing	International	Paper Presenter	BVB Engineering College	Hubli
08.11.2006	Virtual Instrumentation in Engineering Education	National	Participant	National Instruments, Bangalore	Bangalore
28.11.2003 to 13.12.2003	DSP Architecture, Programming and Applications	National	Speaker	NIT, Trichy	NIT, Trichy
30.05.2005 to 15.06.2005	DSP Architecture, Programming and Applications	National	Speaker	NIT, Trichy	NIT, Trichy
20.10.2002 to 25.10.2002	IEEE Information Theory Workshop 2002	International	Participant	IISc, Bangalore	IISc, Bangalore
11.12.2001 to 21.12.2001	Applications of DSP in Wireless Communication & Image Processing	National	Participant	IIT, Chennai	IIT, Chennai
6.5.1999 to 8.5.1999	Wireless Communication'99	National	Participant	IISc, Bangalore	IISc, Bangalore
24.11.1998 to 4.12.1998	Multimedia Communication	National	Participant	IIT, Chennai	IIT, Chennai

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

<b>Title of Activity</b>	<b>Level of Event (International/ National/ Local)</b>	<b>Date (s)</b>	<b>Role</b>	<b>Venue</b>
Two Week ISTE workshop on Signals and Systems	National	02.01.2014 to 12.01.2014	Coordinator	NIT, Trichy
Economics of Information and Internet Economics- Impact of Communication Technology of Economics	National	08.02.105 to 10.01.2015	Coordinator	NIT, Trichy
Conclave on Academic Reforms 2015	National	28.04.2015 to 29.04.2015	Technical Committee Member	NIT, Trichy



**National Institute of Technology, Tiruchirappalli:**  
**Performa for CV of Dr.P.PALANISAMY**

---

18. Invited Talks delivered

Topic	Date	Inviting Organization
Linear Algebra and Discrete-Time Systems	21.1.2013 to 2.3.2013	DRDL Hyderabad

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member )	Organization	Membership No. with date
Member	IEEE	90714321 (2014)
Fellow	FIE	F-122951-2 (2017)
Life Member	IETE	M189095 (2007)
Life Member	ISTE	LM40665 (2004)
Member	ACEEE	7000051 (09, February 2009)
Member	IAENG	65391 (April 2010)

20. Academic Foreign Visits

Country	Duration of Visit	Programme
Singapore	12.11.2007 to 11.12.2007	TEQIP training
Malaysia	19.02.2012 to 21.02.2012	International Conference
Singapore	20.11.2016 to 26.11.2016	IEEE TENCON 2016 International Conference

## 21. Publications

### (A) Refereed Research Journals:

1. K.Gowri and **P.Palanisamy**, “**2D Direction Finding of Coherent Sources Using Three Parallel Sparse Arrays with Less Computational Complexity**”, Springer Journal of Circuits, Systems, and Signal Processing, 2021, 1-18. DOI: 10.1007/s00034-021-01683-.
2. AnjuThomas, HarikrishnanP. M, .AdithyaK. Krishna, **Palanisamy P**, Varun P.Gopi, “**A novel multiscale convolutional neural network based age-related macular degeneration detection using OCT images**”, Biomedical Signal Processing and Control, Vol.67, 2021. <https://doi.org/10.1016/j.bspc.2021.102538>
3. M, H.P., Thomas, A., Gopi, V.P., **Palanisamy, P.**, “**Fast approach for moving vehicle localization and bounding box estimation in highway traffic videos**, (2021) Signal, Image and Video Processing. (Article in press)
4. Harikrishnan, P.M., Thomas, A., Gopi, V.P., **Palanisamy, P.**, Wahid, K.A., “**Inception single shot multi-box detector with affinity propagation clustering and their application in multi-class vehicle counting**, (2021) Applied Intelligence. (Article in press)
5. AP Sunija, Saikat Kar, S Gayathri, Varun P Gopi, **P Palanisamy**, “**OctNET: A Lightweight CNN for Retinal Disease Classification from Optical Coherence Tomography Images**” Computer Methods and Programs in Biomedicine. Article in press.
6. Anju Thomas, A. P. Sunija, Rigved Manoj, Rajiv Ramachandran, Srikanth Ramachandran, P. Gopi Varun, **P. Palanisamy**, “**RPE layer detection and baseline estimation using statistical methods and randomization for classification of AMD from retinal OCT**, Computer Methods and Programs in Biomedicine. Article in press.
7. Mounika Bommisetty, R., Khare, A., Siddiqui, T.J., **P.Palanisamy**, “Fusion of gradient and feature similarity for Keyframe extraction”. Multimedia Tools Appl (2021). <https://doi.org/10.1007/s11042-020-10390-x>
8. S.Deepudev., **P.Palanisamy.**, Gopi, V. P., Nelli, M. K., & K, A. (2020), “**Prediction of Gate In Time of Scheduled Flights and Schedule Conformance using Machine Learning-based Algorithms**”, International Journal of Aviation, Aeronautics, and Aerospace, 7(4). <https://doi.org/10.15394/ijaaa.2020.1521>
9. Hariharan.P.M., Anju Thomas, Nisha.J.S., Varun.P.Gopi, **Palanisamy.P**, “**Pixel matching search algorithm for counting moving vehicle in highway traffic videos**”, Multimedia Tools and Applications, <https://doi.org/10.1007/s11042-020-09666-z>
10. Gayathri, S., Gopi, V.P. & **Palanisamy**, “A lightweight CNN for Diabetic Retinopathy classification from fundus images”, Biomedical Signal Processing and Control, Vol.62, 2020. <https://doi.org/10.1016/j.bspc.2020.102115>
11. Gayathri, S., Gopi, V.P. & **Palanisamy.P**, “Automated classification of diabetic retinopathy through reliable feature selection”, *Physical and Engineering Sciences in Medicine*, July 2020 (Springer). DOI: <https://doi.org/10.1007/s13246-020-00890-3>.

National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY

---

12. Gowri, K., Palanisamy, P. & Amiri, I.S., “**Improved Method of Direction Finding for Non Circular Signals with Wavelet Denoising Using Three Parallel Uniform Linear Arrays**”, *Wireless Pers Commun* (2020). <https://doi.org/10.1007/s11277-020-07571-0>
13. S Gayathri, AK Krishna, VP Gopi, **P Palanisamy**,” **Automated Binary and Multiclass Classification of Diabetic Retinopathy Using Haralick and Multiresolution Features**”, *IEEE Access*, Vol.8, 2020 (DOI: 10.1109/ACCESS.2020.2979753)
14. P.Gopinath, N.B.Shankar, **P.Palanisamy** and Varun P Gopi, “A hybrid feature preservation technique based on luminosity and edge based contrast enhancement in color fundus images” *Biocybernetics and Biomedical Engineering* (Elsevier), Vol. 40(2), pp.752-763 (2020)
15. Karthick S, Palanisamy.P and Srinivasarao Chintagunta, “**Polarization Difference Smoothing in Bistatic MIMO Radar**” *Progress In Electromagnetics Research Letters*, Vol.88, pp.67-74, 2020 .
16. K.Gowri and P.Palanisamy, “Two Dimensional Direction of Arrival Estimation Algorithm for Coherent Signals using three parallel Uniform Linear Arrays” *Journal Communication Technology and Electronics* (Springer), Vol.64, No.12, pp-1383-1390 (2019). Doi:10.1134/S106422691912009x.
17. S.Deivalakshmi, Palanisamy.P and X.Gao, “**Balanced GHM Mutiwavelet Transform based Contrast Enhancement Technique for Dark Images using Dynamic Stochastic Resonance**, *Journal of Intelligent Automation and Soft Computing*, Vol. 25, no. 3, pp.459–471 (DOI: 10.31209/2018.100000001).
18. Gowri.K, Palanisamy.P and Iraj Sadegh Amiri, “**Direct Localization of Multiple Noncircular Sources With a Moving Nested Array**”, *IEEE Access*, Vol. 7, 2019. (DOI: 10.1109/ACCESS.2019.2929805)
19. **Palanisamy P**, Karthick S and Srinivasarao Chintagunta, “Computationally efficient method for joint DOD and DOA estimation of coherent targets in MIMO radar”, *Elsevier Signal Processing*, Vol. 165, PP. 262-267, 2019. (<https://doi.org/10.1016/j.sigpro.2019.07.015> ).
20. Srinivasarao Chintagunta and **Palanisamy P**, “Spatial and Polarization Angle Estimation of Mixed-Targets in MIMO Radar”, *Progress In Electromagnetics Research M*, Vol.82, pp.49-59, 2019 .
21. Vikas R. Phate, R. Malmathanraj, **P. Palanisamy**, “Clustered ANFIS weighing models for sweet lime (Citruslimetta) using computer vision system”, *Journal of Food process Engineering* (Wiley), 2019 DOI: 10.1111/jfpe.1316.
22. Yogeswararao Gurubelli, Malmathanraj Ramanathan, Palanisamy Ponnusamy, “Fractional fuzzy 2DLDA approach for pomegranate fruit grade classification” *Elsevier Journal of Journal Computers and Electronics in Agriculture*, 162 (2019), pp-95-105. (<https://doi.org/10.1016/j.compag.2019.03.036>)
23. Vikas R. Phate, R. Malmathanraj, **P. Palanisamy**, “**Classification and weighing of sweet lime (Citrus limetta) for packaging using computer vision system**”, *Springer Journal of Food Measurement and Charecterization*, Feb. 2019. Pp. 1-18 (10.1007/s11694-019-00061-3).
24. P.Gopinath, **P.Palanisamy** and Varun P Gopi, “**An improved luminosity and contrast enhancement framework for feature preservation in color fundus images**”, *Springer Journal of Signal, Image and Video Processing*, (2018), pp.1-8. ([doi.org/10.1007/s11760-018-1401-y](https://doi.org/10.1007/s11760-018-1401-y))
25. P.V. Sudeep, **P. Palanisamy**, Chandrasekharan Kesavadas, Jeny Rajan, “**An improved nonlocal maximum likelihood estimation method for denoising magnetic resonance images with spatially varying noise levels**”, *Pattern Recognition Letters* (Feb. 2018 on line), doi:10.1016/j.patrec.2018.02.007

National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY

---

26. Srinivasarao Chintagunta and **P Palanisamy** “2D-DOD and 2D-DOA estimation using the electromagnetic vector sensors” Elsevier Signal Processing, Vol. 147, pp.163-172. DOI: doi.org/10.1016/j.sigpro.2018.01.025
27. C. Srinivasarao and **P. Palanisamy**, **Integrated polarization and diversity smoothing algorithm for DOD and DOA estimation of coherent targets**, IET Signal Processing, pp. 1-7, 2017 DOI: 10.1049/iet-spr.2017.0276
28. Srinivasarao Chintagunta and **P Palanisamy**, “**DOD and DOA estimation using the spatial smoothing in MIMO radar with the EmV sensors**”, Springer Journal of Multidimensional Systems and Signal Processing, May 2017. (DOI 10.1007/s11045-017-0500-1)
29. K.Gowri and **P.Palanisamy**, “Multiresolution transform based denoising in direction finding”, International Journal of Computer Applications, No.1, September 2017.
30. PV Sudeep, **P Palanisamy et al.**, **A nonlocal maximum likelihood estimation method for enhancing magnetic resonance phase maps**”, Springer Journal of Signal, Image and Video Processing, Dec. 2016, (doi: 10.1007/s11760-016-1039-6).
31. Deivalakshmi S, **Palanisamy P.**, “**Undecimated Balanced GHM Multiwavelet Transform based Contrast Enhancement Technique for Dark Images using Dynamic Stochastic Resonance**”, International Journal of Computer Applications, Vol.150(11), Sept. 2016, pp.47-54. (doi: 10.5120/ijca2016911657)
32. PV Sudeep, **P Palanisamy et al.**, “**Speckle reduction in medical ultrasound images using an unbiased non-local means method**” Biomedical Signal Processing and Control, Vol.28, July 2016, pp 1-8, (doi:10.1016/j.bspc.2016.03.001).
33. S Deivalakshmi, **P Palanisamy**, “**Removal of high density salt and pepper noise through improved tolerance based selective arithmetic mean filtering with wavelet thresholding**”, AEU-International Journal of Electronics and Communications, Vol.70(6), June 2016, pp.757-776 (doi:10.1016/j.aeue.2016.03.002).
34. P.V. Sudeep, **P. Palanisamy et al.**, “**Enhancement and Bias Removal of Multiframe Optical Coherence Tomography Images: an Iterative Approach via Adaptive Bilateral Filtering**,” Computers in Biology and Medicine, Vol.71, April 2016, pp. 97-107 (doi:10.1166/jmihi.2016.1579)
35. Varun P. Gopi, **P. Palanisamy, Khan A. Wahid, Paul Babyn, David Cooper** “ **Iterative Computed Tomography Reconstruction from Sparse-View Data**,” Journal of Medical Imaging and Health Informatics, Vol.6(1), 2016, pp.34-46.
36. Sudeep P.V., **P.Palanisamy**, Chandrasekharan KEsavadas and Jeny Rajan “**Nonlocal linear minimum mean square error methods for denoising MRI**” Journal of Biomedical Signal Processing and Control, Vol.20 (2015), pp.125-134.
37. E.S.Gopi and **P.Palanisamy**, “**Neural network based class-conditional probability density function using kernel trick for supervised classifier**” Elsevier Journal of Neuro Computing , Vol. 154, pp-225-229. Doi:10.1016/j.neucom.2014.11.070 (2015)
38. E.S.Gopi and **P.Palanisamy**, “**Maximizing gaussianity using kurtosis measurement in the kernel space for kernel linear discriminant analysis**” Elsevier Journal of Neuro Computing, Vol.11(2014), pp. 329-337.
39. Varun P. Gopi, **P. Palanisamy**, Paul Babyn and Khan A. Wahid, “**Multiple Regularization based on MRI Reconstruction**”, Elsevier-Signal processing, Vol.103,2014, pp. 103-113 ( <http://dx.doi.org/10.1016/j.sigpro.2013.11.001>)

National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY

---

40. Varun P.Gopi, **P.Palanisamy**, Khan A.Wahid and Paul Babyn, “**MR Image Reconstruction Based on Framelets and nonlocal total variation using Split Bregman method**”, Springer Journal of Computer assisted radiology and surgery, Vol.9(3) (2014), pp.459-472. (DOI 10.1007/s11548-013-0938-z)
41. Varun P. Gopi, **P. Palanisamy**, Khan A. Wahid, Paul Babyn, David Cooper " **Micro-CT Image Reconstruction Based on Alternating Direction Augmented Lagrangian method and Total Variation,**" Elsevier Journal of Computerized Medical Imaging and Graphics, Vol.37, December 2013, pp.419-429. (doi:10.1016/j.compmedimag.2013.08.006)
42. Varun P.Gopi, **P.Palanisamy**, Khan A.Wahid and Paul Babyn, “**MR Image Reconstruction Based on Iterative Split Bregman algorithm and nonlocal total variation**”, Journal of Computational and Mathematical Methods in Medicine, vol.2013, pp/1-16,( <http://dx.doi.org/10.1155/2013/985819>)(2013)
43. S.Issac Niwas, **P.Palanisamy** and K.Sujathan, “**Complex Wavelets based automated analysis of subcellular pattern in Immunohistochemistry images of the tissue microarrays from the Human Protein Atlas**” International Journal of Imaging Science and Engineering, Vol.7, pp.1-5, 2013.
44. S. Issac Niwas, A.Karsnas, V.Uhlmann, **P Palanisamy**, C Kampf, M.Simonsson, C.Wählby and R Strand, “**Automated classification of immunostaining patterns in breast tissue from the Human Protein Atlas**”, Journal of Pathology Informatics, Vol.4, pp.1-4, 2013.
45. E.S.Gopi and **P.Palanisamy** “**Formulating Particle swarm optimization based membership linear discriminant analysis** ” Elsevier journal on swarm intelligence and evolutionary computation, vol.12, pp.65-73,2013.
46. E.S.Gopi and **P.Palanisamy**, “**Fast computation of PCA bases of image subspace using its inner-product subspace**” Elsevier journal on Applied Mathematics and Computation, vol.219(12),pp.6729-6732.
47. S Issac Niwas, **P Palanisamy**, E Bengtsson, “**Color deconvolution method for breast tissue core biopsy images cell nuclei detection and analysis using multiresolution technique**”, International Journal of Imaging and Robotics, vol.9(1), pp.48-60.
48. Varun P. Gopi, **P Palanisamy**, "Capsule Endoscopic Image Denoising Based on Double density dual tree complex wavelet Transform", International Journal of Imaging and Robotics, vol.9(1), pp.37-47(appear in Jan.2013 edition)
49. S.Issac Niwas, **P. Palanisamy**, K. Sujathan and E. Bengtsson: “**Analysis of nuclei textures of fine needle aspirated cytology images for breast cancer diagnosis using Complex Daubechies Wavelets**”, Elsevier-Signal Processing, vol.96(10), pp. 2828-2837, July 2012. (Doi.org/10.1016/j.sigpro.2012.06.029)
50. S Issac Niwas, **P Palanisamy**, R Chibbar, WJ Zhang: “**An expert support system for breast cancer diagnosis using color wavelet features**”, Springer-Journal of Medical Systems, Vol.36 (5), pp. 3091-3102, Sep. 2012.



National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY

---

51. **P.Palanisamy**, N.Kalyanasundaram and P.M.Swetha, “**Two-dimensional DOA estimation of coherent signals using acoustic vector sensor array**”, Signal Processing (Elsevier), Vol.92, pp.19-28, 2012 (DOI:10.1016/j.sigpro.2011.05.021).
52. **P.Palanisamy** and N.Kalyanasundaram, “**Sonar target detection by modified adaptive noise cancellation using correlating filter**”, International Journal of Electronics, Vol.98, No.1, pp.41-60, Jan.2011 (DOI: [10.1080/00207217.2010.497670](https://doi.org/10.1080/00207217.2010.497670)).
53. N.Kalyanasundaram and **P.Palanisamy**, “**Active Bearing Estimation from a Mobile Two-Dimensional Array of Sensors**”, IET (IEE) Signal Processing, Vol.4, No.1, pp.55-68, Feb.2010 (DOI: 10.1049/iet-spr.2008.0258).
54. **P.Palanisamy** and N.Rao, “**Direction of Arrival Estimation based on Fourth-Order Cumulant using Propagator method**”, Progress In Electromagnetics Research B, Vol.18, No.8, pp.83-99, 2009 (DOI:10.2528/PIERB09081806).
55. **P.Palanisamy**, N.Kalyanasundaram and A.Raghunandan, “**A New DOA estimation algorithm for wideband signals in the presence of unknown spatially correlated noise**”, Signal Processing (Elsevier), Vol.89, No.10, pp.1921-1931, Oct.2009 (DOI:10.1016/j.sigpro.2009.03.033).
56. N.Kalyanasundaram and **P.Palanisamy**, “**Target Detection by Adaptive Noise Cancellation**”, IET (IEE) Electronics Letters, vol.44, No.22, pp.1329-1331, Oct.2008 (DOI: 10.1049/el:20081432).
57. **P.Palanisamy** and K.Nidhin, “**Error Localization of Complex DFT codes using propagator method**”, International Journal of Recent Trends in Engineering, vol.1, No.3, pp-167-170, May 2009 (ISSN: 1797-9617)
58. Sambit Prasad Kar and **P.Palanisamy**, “**A Propagator Method like Algorithm for Estimation of Multiple Real-Valued Sinusoidal Signal**” International Journal of Electronics and Electrical Engineering, pp.254-258, Vol. 6, 2012
59. P.M.Swetha and **P.Palanisamy**, “**2-D DOA Estimation of Coherent wideband signals using L-shaped Sensor array**”, Advances in Computer Science and Information Technology, Springer Verlag Berlin Heideberg, 2011, Vol.131, Part-1, pp.179-188, (DOI: 10.1007/978-3-642-17857-3\_18)

**(B) Conferences/Workshops/Symposia Proceedings**

1. Deepudev, S., Palanisamy, P., Gopi, V.P., Nelli, M.K., “**A Machine Learning Based Approach for Prediction of Actual Landing Time of Scheduled Flights**”, (2021) Advances in Intelligent Systems and Computing, 1245, pp. 755-766. DOI: 10.1007/978-981-15-7234-0\_72
2. Thomas, A., Harikrishnan, P.M., Nisha, J.S., Gopi, V.P., Palanisamy, P., “**Pothole and Speed Bump Classification Using a Five-Layer Simple Convolutional Neural Network** (2021) Advances in Intelligent Systems and Computing, 1245, pp. 491-499. DOI: 10.1007/978-981-15-7234-0\_45
3. Thomas, A., Harikrishnan, P.M., Palanisamy, P., Gopi, V.P., “**Moving Vehicle Candidate Recognition and Classification Using Inception-ResNet-v2**”, (2020) Proceedings - 2020 IEEE 44th Annual Computers, Software, and Applications Conference, COMPSAC 2020, art. no. 9202415, pp. 467-472. DOI: 10.1109/COMPSAC48688.2020.0-207
4. Gupta, R., Narayanan, N., Gupta, P., **Palanisamy, P.**, “**Modified Adaptive Dictionary Reconstruction Framework for Compressed Sensing of ECG Signals**, (2020) Proceedings of the 2020 IEEE International Conference on Communication and Signal Processing, ICCSP 2020, art. no. 9182367, pp. 1096-1100. DOI: 10.1109/ICCSP48568.2020.9182367

National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY

---

5. K. Subramaniam, **Palanisamy** Ponnusamy and S. Chintagunta, "Localization of Coherent Targets in Bistatic MIMO Radar," *2020 International Conference on Communication and Signal Processing (ICCSP)*, Chennai, India, 2020, pp. 1269-1273, doi: 10.1109/ICCSP48568.2020.9182240.
6. Y. Gurubelli, R. Malmathanraj and **P. Palanisamy**, "Texture and Colour Gradient Features for Grade analysis of Pomegranate and Mango Fruits using kernel-SVM Classifiers," *2020 6th International Conference on Advanced Computing and Communication Systems (ICACCS)*, Coimbatore, India, 2020, pp. 122-126. doi: 10.1109/ICACCS48705.2020.9074221.
7. N. N. Bhookya, R. Malmathanraj and **P. Palanisamy**, "Yield Estimation of Chilli Crop using Image Processing Techniques," *2020 6th International Conference on Advanced Computing and Communication Systems (ICACCS)*, Coimbatore, India, 2020, pp. 200-204, doi: 10.1109/ICACCS48705.2020.9074257.
8. V. R. Phate, R. Malmathanraj and P. Palanisamy, "An Indirect Method to Estimate Sweet Lime Weight through Machine Learning Algorithm," *2020 Fourth International Conference on Computing Methodologies and Communication (ICCMC)*, Erode, India, 2020, pp. 194-198, doi: 10.1109/ICCMC48092.2020.ICCMC-00038.
9. H. Bitra and P. Ponnusamy, "Closed form Capacity expression of Spatial modulation using Hypergeometric series," *2020 International Conference on Computation, Automation and Knowledge Management (ICCAKM)*, Dubai, United Arab Emirates, January 2020, pp. 527-530. ([10.1109/ICCAKM46823.2020.9051504](https://doi.org/10.1109/ICCAKM46823.2020.9051504))
10. H. Bitra and Palanisamy.P "Performance Analysis of Adaptive Generalized Spatial Modulation," *2020 International Conference on Artificial Intelligence and Signal Processing (AISP)*, Amaravati, India, January 2020, pp. 1-6. ([10.1109/AISP48273.2020.9073041](https://doi.org/10.1109/AISP48273.2020.9073041))
11. P. Gopinath, **P. Palanisamy**, Varun P. Gopi, "**An Adaptive Enhancement method for Low Contrast Color Retinal Images based on Structural Similarity**", IEEE International Conference on Circuits and Systems in Digital Enterprise Technology (ICCSDET – 2018) Kottayam, Kerala, India (21<sup>st</sup> to 22<sup>nd</sup> December 2018), pp. 107-110.
12. B. Hanumantha Rao, **P. Palanisamy**, "**Application of hypergeometric function in MIMO wireless systems**", IEEE International Conference on Circuits and Systems in Digital Enterprise Technology (ICCSDET – 2018), Kottayam, Kerala, India (21<sup>st</sup> to 22<sup>nd</sup> December 2018), pp. 876-878.
13. Vikas R. Phate, R. Malmathanraj, **P. Palanisamy**, "A noval approach for sweet lime volume estimation using dimensional analysis and artificial neural network", International conference on recent advances in food processing technology, IIFPT, Thanjavur, 17-19, Aug. 2018.
14. G. Yogeswararao, R. Malmathanraj, **P. Palanisamy**, "Grading of pomegranate and mango fruits using texture and color gradient features with kernel SVM classifier", International conference on recent advances in food processing technology, IIFPT, Thanjavur, 17-19, Aug. 2018.
15. Vikas R. Phate, R. Malmathanraj, **P. Palanisamy**, "Mathematical modeling for weight estimation of sweet lime fruit", International conference on analysis and applied mathematics, vol. 1, pp. 52-57, July 2018.
16. H. Lavanuru, K. Shiva and **P. Palanisamy**, "Dynamic Functional and Network Connectivity Changes of Functional MRI Data: Parkinson's Study," *2018 3rd IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT)*, Bangalore, India, 2018, pp. 1729-1733, doi: 10.1109/RTEICT42901.2018.9012457.

National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY

---

17. Aich A. and Palanisamy P., “**A novel CS Beamformer root-MUSIC algorithm and its subspace deviation analysis,**” 2017 IEEE Region 10 Conference (TENCON) Malaysia, 2017, 05th -08th Nov’ 2017.
18. Aich A. and Palanisamy P., “**On-grid DOA estimation method using Orthogonal Matching Pursuit,**” 2017 IEEE International Conference on Signal Processing and Communication (ICSPC), Coimbatore, India, 28th - 29th July 2017.
19. Smita Subhash Patil and P. Palanisamy, **Pedestrian classification in partial occlusion,** 2017 4th International Conference on Signal Processing, Communications and Networking (ICSCN -2017), March 16 – 18, 2017, Chennai, INDIA
20. Aich A. and Palanisamy P., “**On application of OMP and CoSaMP algorithms for DOA estimation problem,**” 2017 IEEE International Conference on Communication and Signal Processing (ICCSP), Melmaruvathur, India, 06th -08th April 2017.
21. S. Deivalakshmi, P. Palanisamy and R. Pandeewari, "Undecimated double density wavelet transform based contrast enhancement technique using dynamic stochastic resonance," *2017 IEEE 2nd International Conference on Signal and Image Processing (ICSIP)*, Singapore, 2017, pp. 95-100, doi: 10.1109/SIPROCESS.2017.8124513.
22. K. Gowri and P. Palanisamy, **Robust wavelet denoising based DOA estimation with mutual coupling compensation,** *2017 International Conference on Advanced Computing and Communication Systems (ICACCS -2017), Jan. 06 – 07, 2017, Coimbatore, INDIA*
23. K. Gowri and P. Palanisamy, **Multiresolution Transform based Denoising in Direction Finding,** International Journal of Computer Applications (0975 – 8887) International Conference on Microelectronics, Circuits and System –Micro 2016
24. Aich A. and Palanisamy P., “**A strict bound for dimension of measurement matrix for CS beamformer MUSIC algorithm,**” 2016 IEEE Region 10 Conference (TENCON) Singapore, 2016, pp. 2602-2605.
25. S.Deivalakshmi, P. Palanisamy, S. Gireesh Kumar, “**Contrast Enhancement Technique for Dark Images using Dynamic Stochastic Resonance and Complex Daubechies Wavelet Transform**” *Proc. of 3rd IEEE international conference on Electronics and Communication Systems (ICECS 16), Coimbatore, 25-26, Feb 2016.*
26. Manoj Bisht and P. Palanisamy, “**Outage capacity performance analysis of dual hop multiple relay decode-and-forward system for generalized  $\eta$ - $\mu$  fading channel**”, *Proceedings of 2016 – International Conference on Intelligent Communication, Control and Devices (ICICCD-2016).*
27. Manoj Bisht and P. Palanisamy, “**Outage capacity performance analysis of dual-hop multi-relay decode-and-forward system for Asymmetric fading channels**”, *Proceedings of 2016 – IEEE International Conference on Advances in Computing, Communication & Automation (ICACCA-2016).*
28. Sagar K, M. S., P Palanisamy, “**Optimal Pilot- Aided Semi Blind Channel Estimation for MIMO-OFDM System**” *Proc. of 2015 IEEE Global conference on Communication Technologies, April, 2015, pp. 290-293.*
29. Srinivasarao Chintagunta, P Palanisamy, “**Coherent targets DOA estimation with electromagnetic vector sensors in MIMO radar**”, *Proc. of IEEE 2015 3rd International Conference on Signal Processing, Communication and Networking (ICSCN), pp. 1-4, March 2015.*
30. Sagar K, M. S., P Palanisamy, “**MIMO-OFDM Channel Estimation with Complex and Bipolar NRZ Encoded Pilots**” *Proc. of IEEE International Conference on Computer Communication and*



National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY

---

*Informatics(ICIII)*, January, 2015, pp.1-4.

31. Sagar K, M. S., **P Palanisamy**, “**Optimal Orthogonal Pilots Design for MIMO-OFDM Channel Estimation**” *Proc. of IEEE International Conference on Computational Intelligence and Computing Research*, December,2014, pp.1-4.
32. Sudheer Reddy, P and **P.Palanisamy**, “**Multitaper Spectrum Sensing using Sinusoidal Tapers with overlapping time series**” *Proc. of International Conference on Control, Instrumentation, Communication and Computational Technologies*, July 2014.
33. E.S.Gopi and **P.Palanisamy**, “**Scatter matrix versus the proposed distance matrix on linear discriminant analysis for image pattern recognition**” *Proc. of 2<sup>nd</sup> international conference on Advanced Computing, Networking and Informatics (ICACNI-2014)*, Vol.1, pp. 101-108, 24-26, June 2014.
34. S.Deivalakshmi, K.Chaitanya and **P.Palanisamy**, “**Detection of Table Structure and Content Extraction from Scanned Documents**”, *Proc. of 3rd IEEE international conference on Communication and Signal processing*, pp.797-801, 3-5, April 2014.
35. Varun P. Gopi, Pavithran M., Nishanth T., Balaji S., Rajavelu V., **P. Palanisamy.**, “**Undecimated Double Density Dual Tree Wavelet Transform Based Image Denoising Using Subband Adaptive Thresholding**” ,IEEE International Conference on Issues and Challenges in Intelligent Computing Techniques (ICICT’14), pp. 743–748, 2014.
36. S. K. Singh, N. Poria and P. Palanisamy, "Reversible watermarking with embedded digital signature," *2014 International Conference on Computation of Power, Energy, Information and Communication (ICCPEIC)*, Chennai, 2014, pp. 478-481, doi: 10.1109/ICCPEIC.2014.6915411.
37. Varun P Gopi, M Pavithran, T Nishanth, S Balaji, V Rajavelu, **P Palanisamy**, “**A novel wavelet based denoising algorithm using level dependent thresholding**”, *IEEE 2014 2014 International Conference on Electronics and Communication Systems (ICECS)*, pp. 1-6, Feb. 2014.
38. Suraj Kumar Singh, Varun P Gopi, **P Palanisamy**, “**Image security using DES and RNS with reversible watermarking**”, *IEEE 2014 2014 International Conference on Electronics and Communication Systems (ICECS)*, pp. 1-5, Feb. 2014.
39. Varun P Gopi, TK Fayiz, **P Palanisamy**, “**Regularization based CT image reconstruction using Algebraic techniques**”, *IEEE 2014 2014 International Conference on Electronics and Communication Systems (ICECS)*, pp. 1-3, Feb. 2014.
40. Sudeep P V, **Palanisamy P** and Jeny Rajan, "A Hybrid Model for Rician Noise Reduction in MRI", *Proc. of 2nd International Conference on Advanced Computing, Networking and Security*, Dec. 15 - 17, 2013.
41. Varun P Gopi, M Pavithran, T Nishanth, S Balaji, V Rajavelu, **P Palanisamy**, “**Image Denoising Based on Undecimated Double Density Dual Tree Wavelet Transform and Modified Firm Shrinkage**” *IEEE 2013 2nd International Conference on Advanced Computing, Networking and Security (ADCONS)*, pp. 68-73, Dec. 2013.
42. Sudheer Reddy P and **Palanisamy P**, "Multitaper Spectrum Sensing using Sinusoidal Tapers", *Proc. of 2nd International Conference on Advanced Computing, Networking and Security*, December 15- 17, 2013.
43. Varun P. Gopi, Zangen Zhu, **P.Palanisamy**, Khan A.Wahid, Paul Babyn, “**Iterative method for CT image reconstruction from reduced number of projection views**”, *26<sup>th</sup> Annual IEEE Canadian Conference on Electrical and Computer Engineering (CCECE2013)*, pp.1-4, August 2013.

National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY

---

44. Varun P. Gopi and P.Palanisamy, “**CT Image Reconstruction Based on Combination of Iterative Reconstruction Technique and Total Variation**” *Proc. of IEEE International Conference on Signal Processing, Image processing and Pattern Recognition (ICSIPR13)*, pp. 49-52, April 2013
45. S Deivalakshmi, P Palanisamy, Gayatri Vishwanathan, “**A novel method for text and non-text segmentation in document images**” *Proc. of IEEE 2013 International Conference on Communications and Signal Processing (ICCSP)*, pp. 255-259, April 2013
46. Sambit Prasad Kar, P.Palanisamy, “**An efficient Two Dimensional Multiple Real-Valued Sinusoidal Signal Frequency Estimation Algorithm**”, *Proc. of the fourth International Conference on Signal and Image Processing 2012 (ICSIP 2012)*, Springer Lecture Notes in Electrical Engineering 2012, DOI: 10.1007/978-81-322-0997-3-9.
47. E.S.Gopi and P.Palanisamy, “**Formulating Particle Swarm Optimization based Generalized Kernel Function for Kernel-Linear Discriminant Analysis**” *Proc. of 2<sup>nd</sup> international conference on communication, computing & amp: security (ICCCS-2012)*, Vol. 6, 2012, Pages 517–525.
48. S Issac Niwas, A,Karsnas, V.Uhlmann, P Palanisamy, C Kampf, M.Simonsson, C.Wählby and R Strand, “**Automated classification of immunostaining patterns in breast tissue from the Human Protein Atlas**”, *Proc. of 15<sup>th</sup> International conference on Medical Image computing and computer assisted intervention (MICCAI-2012)*, Nice, France, October 1<sup>st</sup>-5<sup>th</sup> 2012.
49. Issac Niwas. S, P.Palanisamy and E.Bengtsson, “**An Investigation on Nuclei of Histopathological Images using Curvelet Statistical Features**”, *Proc. of 34<sup>th</sup> Swedish Society for Automated Image Analysis (SSBA-2012)*, KTH-Stockholm, Swedan, pp.245-250, 2012.
50. Sambit Prasad Kar, P.Palanisamy, “**Novel 2-D Real-Valued Sinusoidal Signal Frequencies Estimation Based on Propagator Method**”, *Proc. of ICICIC 2012* (Springer Link conf.) held at Chennai in India, from 27-28 July 2012.
51. Sambit Prasad Kar , P.Palanisamy, “**Novel 2-D Real-Valued Sinusoidal Signal Frequencies Estimation Based on Modified ESPRIT and Propagator Method**”, *Proc. of ICACCCT 2012 (IEEE Conf.)*Ramanathapuram, Tamil Nadu, India held from 23-25 August 2012.
52. Varun P. Gopi, P. Palanisamy, Issac Niwas S. “**Capsule Endoscopic Colour Image Denoising Using Complex Wavelet Transform** ”, *Proc. of International Conference on Information processing (ICIP)*, pp. 220-229, Aug. 2012.
53. Varun P. Gopi, P. Palanisamy, “**Endoscopic Image Compression Based on Double Density Discrete Wavelet Transform and SPIHT Coding** ,” *Proc. of 2011 IEEE International Conference on Control System, Computing and Engineering (ICCSCE 2011)*, held at Penang, Malaysia during Nov 25-27 2011.
54. S. Deivalakshmi, B.Harinivash and P.Palanisamy, ‘**Line Removal Technique for Document and Non Document Images**’ *IEEE International Conference on Hybrid Intelligent Systems (HIS 2011)* held at Malacca, Malaysia during Dec 05-08 2011, pp 534-539.
55. S. Deivalakshmi, S.Sarath and P.Palanisamy, ‘**Detection and Removal of Salt and Pepper noise in images by Improved Median Filter**’ *IEEE International Conference on Recent Advances in Intelligent Computational Systems (RAICS 2011)* held at Trivandrum, Kerala during Sep 22-24 2011, pp 363-368.
56. P Palanisamy and Chamarthi Kishore “**2-D DOA Estimation of Quasi-Stationary Signals Based on Khatri-Rao Subspace Approach**,” *IEEE-International Conference on Recent Trends in Information Technology, ICRTIT 2011* MIT, Anna University, Chennai. Tamilnadu, India Date: 3-5 June 2011, pp 798 – 803.
57. P Palanisamy and Sambit Prasad Kar “**Estimation of Real-Valued Sinusoidal Signal Frequencies based on ESPRIT and Propagator methods**,” *IEEE-International Conference on Recent Trends in Information*

National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY

---

*Technology, ICRTIT 2011* MIT, Anna University, Chennai. Tamilnadu, India Date: 3-5 June 2011, PP: 69 – 73.

58. S. Deivalakshmi, **P.Palanisamy**, and Sunil Sriramoju, "**Analysis of Mammogram using Log-Gabor Wavelet Statistical Features**" First international conference on Emerging trends in signal processing and VLSI Design in Guru Nanak Engineering College, Hyderabad, during 11th-13th June 2010.
59. S Issac Niwas, **P Palanisamy**, WJ Zhang, Nor Ashidi Mat Isa and Rajni Chibbar, "**Log-Gabor wavelets based breast carcinoma classification using least square support vector machine**", Proc. of 8<sup>th</sup> IEEE International Conference on Imaging Systems and Techniques (IST-2011), Penang, Malaysia, May 2011.
60. S Issac Niwas, **P Palanisamy** and K Sujathan, "**Complex wavelet as nucleus descriptors for Automated cancer cytology classifier system using ANN**", Proc. of 2010 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC-2010), Coimbatore, India, Dec. 2010.
61. S Issac Niwas, **P Palanisamy** and K Sujathan, "**Wavelet based feature extraction method for Breast Cancer cytology images**", Proc. of IEEE International Symposium on Industrial Electronics and Applications (ISIEA-2010), Penang, Malaysia, Oct. 2010.
62. S.Deivalakshmi and **P Palanisamy**, "**Improved Tolerance based Selective Arithmetic Mean Filter for Detection and Removal of Impulse Noises**", Proc. of 5<sup>th</sup> IEEE International Conference on Industrial and Information Systems (ICIIS-2010), Mangalore, India, July 2010.
63. S Issac Niwas, **P Palanisamy** and K Sujathan, "**Complex wavelet based Texture features of Cancer cytology images**", Proc. of 5<sup>th</sup> IEEE International Conference on Industrial and Information Systems (ICIIS-2010), Mangalore, India, July 2010.
64. **P.Palanisamy** and Praveena Bhatlu Metta, "**Color Image compression using Fast and Fixed point ICA using Vector quantization**", Proc. of International Conference on Signal and Image Processing (ICSIP 2009), pp.105-109, August 2009.
65. **P.Palanisamy** and Praveena Bhatlu Metta, "**Space Time Block Coding with Hybrid Modulations using ICA**", Proc. International Conference on Recent Advancements in Electrical Sciences (ICRAES-2010), vol.2, pp.162-172 January 2010 (ISBN: 978-93-80043-68-5).
66. **P.Palanisamy** and A.Raghunandan, "**A New DOA Estimation Algorithm for Wideband signals in the presence of unknown symmetric toeplitz noise**", IEEE region 10 Colloquium and Third international Conference on Industrial and Information Systems (ICIIS -2008), Kharagpur, 8-10, December 2008.
67. **P.Palanisamy** and A.Raghunandan, "**A New L-Shape 2-Dimensional Angle of Arrival Estimation based on Propagator method**" TENCON – 2008, IEEE Region 10 conference, pp.1-6, Hyderabad, 19-21 Nov 2008. (ISBN: 978-1-4244-2408-5)
68. **P.Palanisamy** and T.V.S.Sreedhar, "**Performance Analysis of Raptor Codes in Wi-Max Systems over Fading Channel**" TENCON – 2008, IEEE Region 10 conference, pp.1-5, Hyderabad, 19-21 Nov 2008. (ISBN: 978-1-4244-2408-5).
69. **P.Palanisamy** and T.V.S.Sreedhar, "**Performance Analysis of Raptor Codes in OFDM Systems**" Proce. of IEEE international conference on Emerging Trends in Engineering & Technology (ICETET-08), pp.1307-1312, Nagpur, 16-18 July, 2008. (ISBN: 978-0-7695-3267-7)
70. **P.Palanisamy** and A.Raghunandan, "**A New High Resolution DOA Estimation Algorithm using propagator method**" Proce. of the international conference on Cognition and Recognition (ICCR08), pp.624-630, Mysore, 10-12 April, 2008.

National Institute of Technology, Tiruchirappalli:  
**Performa for CV of Dr.P.PALANISAMY**

---

71. **P.Palanisamy** et al, “**Hiding Audio in Video with optimized Source and Channel Coding** ” Proce. of IEEE international conference on Signal Processing, Communications and Networking (ICSCN 2008), pp. 732-737, Chennai, 4-6 Jan., 2008.
72. **P.Palanisamy** et al, “**Efficient Realization of CORDIC based LDPC Decoder for WiMax System** ” Poce. of IEEE international conference on Signal Processing, Communications and Networking (ICSCN 2008),pp.46-50, Chennai, 4- 6 Jan., 2008.
73. **P.Palanisamy** and N.Kalyanasundaram, “**A New fast Convergence Adaptive Algorithm**” Poce. of IEEE international conference on Signal Processing, Communications and Networking (ICSCN 2007), pp. 145-148, Chennai, 22- 24 Feb., 2007.
74. G.Sravankumar and **P.Palanisamy**, “**Tracking of Time Varying Parameters using Variable Step Size WLMS Algorithm**” Proc. of international conference on Advanced Communication Systems (ICACS 2007), pp.91-96, Coimbatore, 10-12 Jan.,2007.
75. J.William, **P.Palanisamy** and X.Susan Christina, “**Design of Noise Cancellation in Hearing Aids using Adaptive Null Beamforming Technique**” Proc. of IEEE international conference on Signal and Image Processing (ICSIP 2006), Vol.2, pp.1046-1050, Hubli, Karnataka, 7-9 Dec.,2006.
76. **P.Palanisamy** et al, “**Performance Evaluation of Non-Uniform Sensor Spacing in a Linear Array Configuration for MUSIC Algorithm**” Proc. of IEEE international conference on Signal and Image Processing (ICSIP 2006) Vol.2, pp.1053-1057, Hubli, Karnataka, , 7-9 Dec.,2006.
77. **P.Palanisamy** and Bhaskar Narayanamurthy, “**A New Two Dimensional DOA Estimation Algorithm based on CAM**” Proc. of IEEE international conference on Signal and Image Processing (ICSIP 2006), Vol.2, pp.1058-1062, Hubli, Karnataka, 7-9 Dec., 2006.
78. **P.Palanisamy** and J.William, “**Noise Reduction in Hearing Aids Using Robust Adaptive Generalized Sidelobe Cancellers**” Proc. of international conference on Intelligent Systems and Control (ISCO2006), pp 211-215, Coimbatore, 9-11 August, 2006.

(C) Books Chapters

Author(s)	Title	Name of Publishers	Year of Publication	ISSN/ISBN Number
S. Deepudev P. Palanisamy Varun P. Gopi Manjunath K. Nelli	A Machine Learning Based Approach for Prediction of Actual Landing Time of Scheduled Flights Source: <b>Advances in Intelligent Systems and Computing</b>	Springer	2020	978-981-15-7233-3
K.Gowri and P.Palanisamy	Computationally Efficient Direction of Arrival Estimation of Coherent Signals for Three Parallel Uniform Linear Arrays <b>Source Title : Energy Systems, Drives and Automations</b>	Springer	2020	978-981-15-5088-1
Sudeep.P.V. P.Palanisamy Jeny Rajan	Advances in Ultrasound Despeckling: An Overview Source Title: Advanced Classification Techniques for Healthcare Analysis	IGI Global	2019	9781522577966
E.S.Gopi P.Palanisamy	Scatter Matrix versus the Proposed Distance Matrix on Linear Discriminant Analysis for Image Pattern Recognition <b>Source: Advanced Computing and</b>	Springer	2014	978-3-319-07352-1

**National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY**

	<b>Informatics</b>			
Varun P. Gopi P. Palanisamy S. Issac Niwas	Capsule Endoscopic Colour Image Denoising Using Complex Wavelet Transform <b>Source: Wireless Networks and Computational Intelligence</b>	Springer	2012	978-3-642-31685-2
P.M.Swetha P.Palanisamy	2-D DOA Estimation of Coherent Wideband Signals Using L-Shaped Sensor Array <b>Source: Advances in Computer Science and Information Technology</b>	Springer	2011	978-3-642-17856-6

**ANNEXURE – I**

**Projects Guided at the Post Graduate Level**

1. Direction of arrival estimation using real-valued compressed MUSIC for arbitrary array geometries
2. Image denoising using shearlet transform and modified total variation
3. MRI image reconstruction using contourlet transform and modified total variation
4. Spatial diversity in RADARs-models and detection performance
5. DOA estimation of temporally and spatially correlated narrowband non-circular sources in spatially correlated white noise
6. A subspace-based code method for 2-D direction estimation with L-shaped array
7. Two-dimensional DOA estimation of coherent signals using electromagnetic vector sensor array
8. Estimation algorithms for sensors gain and phase errors based on different data models
9. A two microphone-based approach for source localization of multiple speech sources
10. Frequency estimation of sampled sinusoidal signals without iteration
11. Document image segmentation using Gabor wavelets and clustering algorithms
12. Regularization based on CT image reconstruction using algebraic techniques
13. Direction of Arrival estimation of 2-D array without knowing number of sources
14. Estimation of DOD, 2-D DOA and Polarizations for bistatic MIMO RADAR using electromagnetic vector sensors
15. Localization of stationary and quasi stationary targets using bistatic MIMO array
16. Multi-target localization in bistatic MIMO RADAR
17. Signal design for transmit beam pattern synthesis for wideband MIMO systems
18. Efficient 2-D DOA estimation of coherent signals in spatially correlated noise using electromagnetic vector sensors
19. An efficient EM algorithm for energy-based multisource localization in wireless sensor networks.
20. Removal of high density salt and pepper noise through modified decision based unsymmetric



National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY

---

trimmed median filter

21. Spatial Extrapolation-based blind DOA estimation approach for closely spaced sources
22. DOA estimation of uncorrelated and coherent signals using uniform circular array
23. 2-D DOA estimation of quasi-stationary signals based on Khatri-Rao subspace approach
24. 2-D DOA estimation for uniform spherical array using propagator method
25. DOA estimation of quasi-stationary signals with less sensors than sources.
26. Denoising and segmentation techniques for cervical cancer diagnosis
27. An algorithm for joint range-DOA-frequency estimation of near-field sources.
28. 2-D DOA estimation of coherent wideband signals using pressure and acoustic vector sensor arrays.
29. Error Localization of Complex DFT codes using propagator algorithm
30. Color Image Compression using fast and fixed point ICA and Vector quantization
31. DOA estimation based on fourth-order cumulants using propagator method
32. DOA estimation of wideband acoustic sources by a vector sensor array
33. DOA estimation of acoustic sources by a vector sensor array using higher order statistics
34. Space time block coding with hybrid modulations using ICA
35. A New DOA estimation algorithm for wideband signals in the presence of unknown noise
36. Performance analysis of raptor codes in OFDM systems
37. A New high resolution signal subspace method for DOA estimation using propagator method for wireless communication
38. Performance analysis of Luby transform codes in OFDM systems
39. A New two dimensional DOA estimation Algorithm based on CAM
40. Performance evaluation of low density parity check coded OFDM systems
41. Tracking of parameters using variable step-size SWLMS algorithm
42. Channel estimation and tracking algorithms for OFDM systems
43. MMSE-Decision feedback equalizer design for OFDM systems with insufficient cyclic prefix
44. An  $H^\infty$  approach to robust channel estimation for OFDM wireless communication systems
45. Wavelet based texture classification with evolution clustering networks
46. Spread spectrum image teganography using Reed Solomon and turbo codes
47. Joint Channel and Carrier frequency offset estimation for OFDM systems
48. Implementation of noise reduction in hearing aids using DSP SHARC processors
49. Face recognition using PCA & Support vector machine
50. A Fast Intra-mode selection algorithm or H-264 encoders
51. Inter Carrier Interference Suppression in OFDM Systems
52. Implementation of MIMO OFDM-based wireless LAN system

National Institute of Technology, Tiruchirappalli:  
Performa for CV of Dr.P.PALANISAMY

---

53. Implementation of MIMO OFDM-based wireless LAN system
54. Improving VOIP call capacity in mesh networks packet aggregation mechanism
55. Speaker Verification using Hidden Markov Model
56. Temporal Video Segmentation
57. Fast full search motion estimation based on multilevel successive elimination algorithm
58. Two-Dimensional DOA estimation of Multiples Sources with a rectangular array of sensors using signal subspace algorithm.

# National Institute of Technology, Tiruchirappalli: Performa for CV of Dr.P.PALANISAMY

---

## **BRIEF PROFILE**

Dr.P.PALANISAMY graduated B.E. in Electronics and Communication Engineering from Bharathiar University, Coimbatore and M.E. in (Communication systems) from National Institute of Technology (then Regional Engineering College), Tiruchirappalli and Ph.D from National Institute of Technology in the area of Signal Processing. He secured University Rank in B.E., First Rank in M.E. and awarded Gold Medal for best thesis in Ph.D.

He worked as a Research Assistant from December 1995 to March 1997 and then he worked as a Scientific Officer in the Department of Electronics, Govt. of India, sponsored research project at Regional Engineering College, Tiruchirappalli from March 1997 to July 1998. Since July, 1998, he has been with National Institute of Technology, Tiruchirappalli as a regular Faculty in the Department of Electronics and Communication Engineering. Currently he is a Professor in the Department of Electronics and Communication Engineering, National Institute of Technology, Tiruchirappalli-620015. In addition, he had served as Associate Dean (Academic) for 3 years, Chairperson PG Admissions Committee for 2 years, Member PG Admission Committee for 5 years, Associate Convener Campus Communication Service for 4 years and currently he is a Convener Campus Communication Service, training officer in Training & Placement department and Member, Industry Institute Interaction Cell.

His area of interest includes Statistical Signal Processing, Adaptive Signal Processing, Adaptive Noise Cancellation, Array Signal Processing, Detection and Bearing Estimation, Frequency Estimation, Image Processing, Medical Image Analysis, Data and Image compression, Digital and Wireless communication etc. He handles Signals & Systems, Digital Systems, Control Systems, Probability Theory & Random processes, Digital Signal Processing, Statistical Theory of Communication, Digital Communication, Error Control Coding, Satellite Communication, Advanced Digital Signal Processing, Advanced Digital Communication, Detection and Estimation, Spectral Analysis of Signals etc.

Under his guidance 8 Ph.D. and 5 MS (By Research) completed. Currently, he is guiding 9 Research Scholars. He has published 51 papers in reputed International Journals and 64 papers in International Conferences.

He has been reviewer for IEEE Transaction on Signal Processing, IEEE Signal Processing Letter, IET (IEE) Signal Processing, IET radar, Sonar and Navigation, International Journal of Signal Processing (Elsevier), Digital Signal Processing (Elsevier Publication), European Journal of Advances in Signal Processing (Hindawi Publication), International Journal of Electronics (Taylor and Francis Publication) and for IEEE and other National and International conferences. He is the member of IEEE, ISTE, IETE, ACEEE and IAENG.