

A VENKATA NARASIMHADHAN

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Education

- Doctoral of Philosophy (Ph.D) 2012, **CGPA 5.8/8**
Indian Institute of Science (IISc), Bangalore, India
Thesis Title: Image Reconstruction based on Hilbert and Hybrid filtered algorithms with inverse distance weight and no backprojection weight.
- Master of Technology (M.Tech), **CGPA 7.37/10**
Indian Institute of Technology (IIT), Guwahati, India, 2005-2007
Thesis Title: Signal Processing Methods for Acoustic Doppler Current Profiler.
- Bachelor of Engineering (B.E) **Percentage 72.68/10**
Andhra University (Campus), Visakapatnam, India, 2001-2005
Project Title: Adhoc routing Protocols in Computer Networks.
- Diploma (Honors) in Electronics and Communication Engineering(DECE) **Percentage 79.54/10**
Govt Polytechnic of Mahaboob Nagar, Mahaboob Nagar, A. P, India, 1997-2000.
- Secondary School Certificate **Percentage 79/10**
Loyala High School, Vinukonda, A. P, India, 1997.

Area of Interest

- Medical Imaging
- Digital Signal Processing
- Microwave Engineering
- Computer Vision

Professional Training Received

- Attended the Faculty training Programme on Teaching Learning Methodologies organised by the Teaching Learning Centre, Centre for Continuing Education, IIT Madras, 2012
- Attended a National Workshop on Optics and Photonics for Engineering Applications, Optical Flare 2013, NIT Goa.
- Attended the workshop on Induction Training Programme for Newly Recruited Faculty Organized by TEQIP-II, NIT K Surathkal, 2013.
- Attended the Faculty Development Program conducted by NITK STEP, 2013.
- Attended the Course on Mathematical Morphology and its applications in Image processing Conducted by NITK, 2015.

International Conferences Attended

- Presented a paper at International conference on Fully 3D Meeting and 2nd HPIR Workshop at Beijing, China during September 2009.
- Presented a paper at 2-Day International Symposium on Medical Imaging: Perspectives on Perception and Diagnostics during December 2010 at IIT Delhi, India.
- Presented a paper at CISP-BMEI-'11 International conference during 15-17 October 2011 at Shanghai, China.
- Presented a paper at Centenary Conference Electrical Engineering, Indian Institute of Science, during 14-17 December 2011 at Bangalore, India.
- Presented papers at IEEE Tencon 2016 at Singapore.

Publications

Journals

- Asha C S and **A. V. Narasimhadhan**, Robust Visual Tracking with Conditional Switching to Disjoint Tracker, Submitted to the journal of Computers and Electrical Engineering (Elsevier).
- Asha C S and **A. V. Narasimhadhan**, Enhanced Median Flow Tracker Based on Photometric Correction for Videos with Abrupt Changing Illumination, Submitted to the International Arab Journal of Information Technology
- Nagaraju Y P, Hema Sai Teja A, **A. V. Narasimhadhan**, An Improved approach for Efficient measurement of Intima Media Thickness of Common Carotid Artery in Ultrasound Images using Support Vector Machine, submitted to **Sadhana, Indian Academy of Sciences, (Springer)**.
- Nagaraju Y P, Pardhu Madipalli, Jeny Rajan, P Krishna Kumar, **A. V. Narasimhadhan**, "Segmentation of Intima Media Complex From Carotid Ultrasound Images Using Wind Driven Optimization Technique, **Biomedical Signal Processing and Control, (Elsevier)**, **Accepted, 2017 Impact factor 2.2**.
- Asha C S and **A. V. Narasimhadhan**, "Robust Infrared Target Tracking using Discriminative and Generative Approaches, accepted **Infrared Physics and Technology (Elsevier)**, **Impact factor 1.99**.
- A. Sharma K Naga Ganesh, K J Patrice Wira, Ravi Prasad and Shyam Lal and **Narasimhadhan A V**, "Modified Null Space Strategy to Solve Consensus Problem, Published in KJS. (Impact factor 0.35)
- Shyam Lal , **A. V. Narasimhadhan** and Rahul Kumar, "Automatic Method for Contrast Enhancement of Natural Color Images", Journal of Electrical Engineering and Technology, 10(3): 1233-1243, 2015. (impact factor 0.7)
- **A V Narasimhadhan**, A Sharma and D Mistry, "Image Reconstruction from Fan-Beam Projections without Back-Projection Weight in a 2-D Dynamic CT: Compensation of Time-Dependent Rotational, Uniform Scaling and Translational Deformations," Open Journal of Medical Imaging, Vol. 3 No. 4, pp. 136-143, 2013.
- **A V Narasimhadhan** and K Rajgopal, "FDK algorithms with no backprojection weight for circular and helical cone-beam CT," *International Journal of Biomedical Imaging*, Volume **2012**, Article ID **969432**, 12 pages, 2012.
- **A V Narasimhadhan** and K Rajgopal , "Analysis and computer simulations of fan-beam algorithms with no backprojection weight for equi-space linear array detector," *J. of Non destructive testing and evaluation*, ISNT, **10(1)**, pp. 50-59, 2011.

Conferences

- G V S S K R Naganjaneyulu, Ch Sai Krishna and **A V Narasimhadhan** A Novel Method for Logo Detection Based on Curvelet Transform Using GLCM Features, accepted in CVIP, 2017
- Asha C S and **A V Narasimhadhan**, Evaluation of Feature Channels for Object Tracking in RGB and Thermal Imagery Using Correlation Filter, Accepted in **NCC 2017**
- G V S S K R Naganjaneyulu, Basheeruddin Shah Shaik and **A V Narasimhadhan** "R Peak Delineation in ECG Signal Based on Polynomial Chirplet Transform using Adaptive Threshold", accepted in ICIIS, Oct 2016.
- Sourabh Malpani, Asha C S and **A V Narasimhadhan** "Thermal Vision Human Classification and Localization using Bag of Visual Word" Accepted in Tencon 2016

- Nagaraj Y, Asha C S and **A V Narasimhadhan** “Assessment of Speckle Denoising in Ultrasound Carotid Images using Least Square Bayesian Estimation Approach” Accepted in Tencon 2016
- G V S S K R Naganjaneyulu, and **A V Narasimhadhan** “A Multi Clue Heuristic Based Algorithm for Table Deteion” Accepted in Tencon 2016
- G V S S K R Naganjaneyulu, and **A V Narasimhadhan** “A Novel Method for Pitch Detection via Instantaneous Frequency Estimation using Polynomial Chirplet Transform” Accepted in Tencon 2016
- Sourabh Malpani, Anu Shaju Areeckal and **A V Narasimhadhan** “Multi-Class Object Catergorization based on Binary Descriptor” Accepted in ICECS-2016
- Asha C S , and **A V Narasimhadhan** “Adaptive learning rate for visual tracking using corrlleation filters” in the proceedings of ICISP-2016
- Basheeruddin Shah Shaik, G V S S K R Naganjaneyulu Gudapati T. Chandrasheker and **A V Narasimhadhan**, ”Method for QRS Delineation Based on STFT using Adaptive Threshold”, ICISP-2015.
- Basheeruddin Shah Shaik, G V S S K R Naganjaneyulu Gudapati and **A V Narasimhadhan**, ”A Novel Approach for QRS Delineation in ECG Signal Based on Chirplet Transform”, Accepted, IEEE Connect 2015.
- G V S S K R Naganjaneyulu , **A V Narasimhadhan** and K Venkatesh ”Performance evaluation of OCR on poor resolution text document images with different preprocessing steps”, Proceedings of IEEE Tencon, Oct 2014.
- V Anudeep kumar reddy, P Saidi Reddy, G R C Reddy, R L N Sai Prasad, **A V Narasimhadhan**, K Sandeepkumar and Sanjeev Afzulpurkar, “Simultaneous measurement of temperature and pressure sensor for oceanography using Bragg gratings,” in *Proceedings of Ocean Sensing and Monitoring*, 2013, USA.
- **A V Narasimhadhan**, K Sumith and K Rajgopal, “3D Reconstruction using FDK Algorithm with no backprojection weight from completed projections in lateral truncation situation: A performance evaluation study,” in *Proceedings of EE Centenary Conference, IISc*, 2011, Bangalore, India.
- **A V Narasimhadhan** and K Rajgopal, “A new hybrid-FBP inversion algorithm with inverse distance backprojection weight for CT reconstruction,” in *Proceedings of 11th Fully 3D Meeting and 3rd HPIR Workshop*, pp. 84-87, 2011, Postdam, Germany.
- K Sumith, **A V Narasimhadhan** and K Rajgopal, “Evaluation of 2D Image Reconstruction using Fan-Beam FBP algorithm with no Backprojection Weight from WLP Completed Truncated Projection Data,” in *Proceedings of CISP-BMEI-11*, 2011, Shanghai, China.
- K Sumith, **A V Narasimhadhan** and K Rajgopal, “Performance Evaluation of Reconstruction with Fan-Beam Algorithm with no Backprojection Weight in Truncated Projection Completion using Linear Prediction, in *Proceedings of Tencon IEEE*, 2011, bali, Indonesia.
- **A V Narasimhadhan** and K Rajgopal, “An Efficient Reconstruction Algorithm for Reducing the Axial Intensity Drop in Circular Cone-beam CT,” *2-Day International Symposium on Medical Imaging: Perspectives on Perception and Diagnostics*, IIT Delhi, 2010.
- **A V Narasimhadhan** and K Rajgopal, “Helical FDK Algorithms With No Backprojection Weight,” in *Proceedings of Tencon IEEE*, pp. 24-27, 2009.
- **A V Narasimhadhan**, K P Anoop and K Rajgopal, “FDK algorithms with no backprojection weight,” in *Proceedings of 10th Fully 3D Meeting and 2nd HPIR Workshop*, pp. 158-161, 2009, Beijing, China.

Professional Activities

- Reviewer of **Journal of Medical Imaging and Health Informatics**
- Reviewer of **International Journal of Research in Engineering and Technology**
- Reviewer of SPIN Conference held at AMITY University.
- Reviewer of SPCOM
- Reviewed a Project Proposal sent by KSCSTE.
- Reviewer of a book publisher (McGraw Hill Education).
- Co-ordinator of Image Processing Workshop was held at NIT Goa.
- Co-ordinator of Recent Trends in Signal Processing and Communications Technologies.

Membership in Professional Bodies

- IEEE.
- IETE.
- I.S.T.E.
- ISCA.
- Member of DUGC in ECE at NITK.
- Member of DRPC in ECE at NITK.
- Faculty Advisor for CE M.Tech in ECE at NITK.

Teaching Experience

The detailed teaching experience is given in Table I.

Awards and Achievements

- Honorarium for reviewing the book titled "Principles of Electromagnetic", 2 Edition, McGraw Hill Education.
- Certificate of Appreciation for the outstanding support during Image processing workshop organized by i3indya Technologies.
- Best paper award for the *J. of Non destructive testing and evaluation*, ISNT, 10(1), 50-59, 2011
- Granted registration fee from the conference organisers for attending the Fully 3D conference in Beijing, China, 2009.
- Secured 99.01 percentile in Graduate Aptitude Test in Engineering (GATE)-2005.

Dr A V Narasimhadhan

Table 1: Teaching Experience

Title of the Course	Year	UG/PG	No.of Students
Signals and Systems	2012	UG	80
Electromagnetic Theory	2012	UG	80
Digital Signal Processing	2012	UG	35
Signals and System lab	2012	UG	37
Digital Signal Processing	2013	UG	37
Analog Communication	2013	UG	38
Microwave Engineering	2013	UG	37
Seminar Course	2013	UG	37
Digital Signal Processing Lab	2013	UG	37
Microwave Engineering Lab	2013	UG	37
Speech and Image processing	2013(Summer)	UG	4
Speech and Image processing	2013	UG	55
Electromagnetic Theory	2013	UG	55
Radiating Systems	2014	UG	35
Microwave Engineering	2014	UG	110
Mathematics for ECE Engineering (Lin. alg. and Proba. Theo.)	2014	UG	110
Speech and Image processing	2015	UG	60
Applications of Digital Signal Processing	2015	UG	60
Digital Signal Processing Lab	2015	UG	110
Math Foundations for comm. Engg.	2015	PG	40
Advanced Digital Signal Processing	2015	UG	60
Digital Signal Processing	2016	UG	110
Digital Signal Processing Lab	2016	UG	110
Information Theory	2016	UG	50
Time Frequency Analysis	2017	UG and PG	109
Numerical Analysis and Applications	2017	UG	45