

Department of Electronics & Communication Engineering

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Areas of Specialization

- ▶ **Image Processing, Patter Recognition, Embedded Systems**
- ▶

Teaching & Learning

Research



Publications

- P K Parlewar, K M Bhurchandi, “Denoising of Digital Images using Curvelet Transform”, International Journal of Automation and Computing, CAS/Springer,. Vol 10(3) June 2013, pp.217-226, **Journal Impact factor 1.87 (3 Years) Citations 3**
- R S Asamwar, K M Bhurchandi, A S Gandhi, “Interpolation of Images using Discrete Wavelet Transform to Simulate Image Resizing as in Human Vision”, International Journal of Automation and Computing, CAS/Springer, Vol.No.7-SS-10. pp.9-16. **Journal Impact factor 1.87 (3 Years) Citations 10**
- R S Asamwar, K M Bhurchandi, A S Gandhi, “ Successive Image Interpolation using Lifting Scheme Approach”, International Journal of Computer Science, Science Publishers, USA, Vol.No.6, issue 9 pp.969-973, **Citations 12, Journal Impact Factor 1.4.**

- R.S. Asamwar, K M Bhurchandi, A.S. Gandhi, “Piecewise Lifting Scheme Based DWT to model Human Vision Interpolation Phenomenon“ , Lecture notes on Computer Science, Springer verlag, Germany, **Journal Impact factor 0.36.**
- **Best Conference Publication-** (26th Annual Conference of world wide Printing Industry; Only academician’s paper that was accepted)
- Raut R B, Bhurchandi K M, “Optimization of Cartridge Life Using JND Sampling Without Compromising the Visual Quality of Printed Images”, Proceedings of International Conference NIP26, IS & T, Texas-Austin, USA, 20-23Sept 2010.
- **Total Publications:42**
- **International Journal-8 Springer-3, Science Publishers-1, IISTE Journals USA-2, Others -2**
- **International Conferences- 18 (7 Outside the Country)**
- (6-IEEE, 1-ACM, 1-SPIE, 1-SinoEuropean
- Collaboration, 1- IISC & CAIR)
- **National Conferences- 16 (2DRDL, 1-IUPRAI)**
- **Last Three years- Springer-2, Other Journals- 5**

Books

- ‘Advanced Microprocessors and Peripherals’, For Tata McGraw Hill, New Delhi, 2000 (1st Edition)
- ‘Advanced Microprocessors and Peripherals’, For McGraw Hill Education, New Delhi, 2012(3rd Edition). Around 3,00,000 copies of this book have been sold in India and abroad under 35 reprints so far. ‘Intel Microprocessors’, For McGraw Hill International, Singapore (2001) International Edition. Received Selected **Author Honor in the category from Mc Graw Hill for this Book in 2009. The Book has earned many citations as may be viewed from www.google.com.**
- Contributed a Chapter on ‘Color Image Processing’ to a book titled ‘Image Processing’, by Dr.A. K. Ray, I I T Kharagpur and Dr. Tinku Acharya, Univ. of South Arizona, John Wiley, USA
- Proceedings of the national conference ICCVGIVP -09 convened by me published by Tata McGraw Hill India 2009.
- Online material for Global IEEE institute of Engineers, titled ‘ Introduction to Analog and digital Electronics’ 2012.

Patents

- Remote Monitoring Systems for Electrical energy Meters using Telephone lines. Work Using Wireless Channels is in progress. (**Published**)
- A few more circuits\systems are ready for patenting.

Research Projects

Research Projects As	Title/Budget	Current Status
(One of the Ten PI)	COMBEDDED systems- NPIU Rs 5,00,000,00/-	Just started; Visiting IIT Kharagpur for discussions with their faculty for laboratories set up.
Principal Investigator	Face Recognition- BRNS- Rs. 22,00,000/-	So far Developed our own synchronized multiple camera photoshooting and database system. A primary model of the face recognition is ready.

Industry-Institute Interaction:

- Coordinator:
- University program laboratories with Texas instruments- 2
- ATMEL Corpopration- 1
- Research groups- 1) Signal, Image processing and Computer Vision
2) Embedded System

List of Ph.D. Scholars & their Areas

- Ms. S. P. Hingway; G. H. Raison Engineering College, Nagpur, ‘ Graph based Strategies for 3D Object recognition’. SRTM Nagpur university (**Awarded**)
- Mr. Rajesh Raut; S.R.K.N. Engineering College, Nagpur, ‘Non-linear Sampling Techniques for Color Images’. SRTM Nagpur University(**Submitted**)
- P.K. Parlewar, S.R.K.N. Engineering College, Nagpur, “An Explorative Study of X-Let Transforms For Image Denoising Applications”. SRTM Nagpur University (**Awarded**)
- Vipul Lande, Embedded Image Processing, **VNIT, Nagpur**
- Bhumika Neole, Video Sequence Retrieval, **VNIT, Nagpur**
- Hemprasad Patil, ‘3D Face Recognition’, **VNIT, Nagpur (Jointly with Dr A G Kothari)**.
- Vipin Kamble, undergoing course work, **VNIT Nagpur**.
- Mrs.M.Bawane, Govt. Poly, Nagpur, ‘Sensing of Limb movements using EEG signals and ANN’, SRTM Nagpur university.
- Mr. A W Gokhale, “ 3D Object tracking in videos”, SRTM Nagpur University.
- Ms. Reena Rahate, “Performance Comparison of Video Compression standards and Improvement in JPEG/MPEG compression performance”

Achievements so far:

- **Publication of the book**
- **BRNS Project**
- **Organized a National conference in 2009.**
- **3 University program laboratories at VNIT**
- **National level TI design Prize under my guidance**
- **A Patent application filed and published**