Curriculum Vitae

Dr. Dhane Dhiraj Manohar

Head Actg., and Assistant Professor

Electronics and Communication Engineering
Indian Institute of Information Technology, Pune
Talegaon – Chakan Road, Maval - 412109
Email: dmdhane@smst.iitkgp.ernet.in,
dmd.ece@iiitp.ac.in

Research Interests

Machine learning, Pattern recognition, Biomedical signal and image processing, Computer vision,

Education

PhD (07.2011 – 11.2017)
School of Medical Science and Technology
Indian Institute of Technology Kharagpur, West Bengal, India.
Supervisor: Prof. Chandan Chakraborty

Master of Technology (09.2004 – 12.2006)
Digital Communication and Networking
Visvesvaraya Technological University Belgaum, Karnataka, India.
Supervisor: Late Prof. Somnath Sengupta (IIT Kharagpur).

Bachelor of Engineering (07.1996 – 06.2001)
Electronics & Telecommunication Engineering
Government College of Engineering Jalgaon, Maharashtra, India

Research Experience

Research Associate (09.2016 – 01.2017)
Bio-medical Imaging Informatics Lab*
Indian Institute of Technology, Kharagpur
Supervisor: Dr. Chandan Chakraborty

Senior Research Fellow (01.2009 – 06.2009)
Defence Institute of Advanced Technology, Pune
Supervisor: Dr. L. M. Patnaik (Ex Vice Chancellor DIAT Pune)

Teaching Experience

Assistant Professor (01.2017 – till date)
Indian Institute of Information Technology Pune
Subjects taught: Signal and systems, Selected topics in Discrete Signals and Graph Theory.

Assistant Professor (06.2009 – 01.2016)†
MMM's College of Engineering, Pune, India
Subjects taught: Signal and systems, Selected topics in Signal Coding and Estimation Theory.

Lecturer (07.2007 – 12.2008)
AISSMS's Institute of Information Technology (IOIT), Pune, India
Subjects taught: Biomedical Electronics, Engineering Circuit Analysis.

Lecturer (01.2006 – 06.2006)
Government College of Engineering, Jalgaon, India

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*http://www.facweb.iitkgp.ernet.in/~chandanc/student.html

† 03 Years and 06 Months on study leave to pursue PhD at IIT Kharagpur.

Subject taught: Microprocessor and Peripheral Interfaces.

Industrial Experience

Junior Engineer (Project) **(**01.2002 – 08.2004)
Adtech Systems, Nashik, India.

Computer Skills and Systems

C/C++, Matlab, LaTeX, Python.

Professional Training / Certification

05.2008 – 06.2008 **Advanced training on Embedded Software**
Centre for Development & Advanced Computing (C-DAC)[‡]Hyderabad.

Dale Carnegie Certificate in High Impact Presentations
Mission10X, Wipro Technologies, Bangalore.

Awards and Achievements

2016	Research Associate, ICMR Delhi.
2009	Senior Research Fellow at Defence Institute of Advance Technology, Girinagar, Pune, India.
2009	Qualified GATE[§] - 2009 with 87.32 percentile score in Electronics and Communication discipline.
2008	Best teacher award at IOIT.
2005	Second prize winner of national level paper presentation competition held at Rajarambapu Institute of Technology (RIT), Sakharale, Maharashtra, India.

Professional Service

Member of
- IEEE (Graduate student member, since 2011)
- IEEE Engineering in Medicine and Biology Society (EMBS).
- Treasurer of IEEE-EMBS Kharagpur chapter**.**
- President of Maharashtra Mandal, IIT Kharagpur

Journal Reviewer
- Computers in biology and medicine (Elsevier).
- Patter recognition letters (Elsevier)
- Journal of mechanics in medicine and biology (World scientific).
- IEEE Transactions on Intelligent Transport Systems

Conference Reviewer
- International Conference on Signal, Image and Video Processing (ICSIVP), Patna, 2012
- IEEE TechSym, IIT Kharagpur, 2014, 2015, 2016
- IEEE- INDICON, Singapore – 2016
- ICACCI, Kochi, Jaipur, 2016

Publications **Articles in Peer-reviewed Journals**

[‡]http://cdachyd.in/future/embedded.htm

[§]Graduate Aptitude Test in Engineering (GATE) is an all-India examination administered and conducted in eight zones across the country by the GATE Committee comprising faculty from Indian Institute of Science, Bangalore and seven Indian Institutes of Technology.

D M Dhane, V Krishna, A Achar, C Bar, K Sanyal, C Chakraborty, "Spectral Clustering for Unsupervised Segmentation of Lower Extremity Wound Beds Using Optical Images", *Journal of Medical Systems 40 (9), 2016.* **(IF: 2.21)**

D M Dhane, M Maity, T Mungle, A Achar, C Bar, M Kolekar, C Chakraborty, "Fuzzy spectral clustering for automated delineation of chronic wound region using digital images", *Computer in Biology and medicine, Elsevier.* **(IF: 1.32)**

D M Dhane, M, Kolekar Mahesh H, Patil Priti N, "Adaptive Image Enhancement and Accelerated Key Frame Selection for Echocardiogram Images",*Journal of Medical Imaging and Health Informatics, Springer Volume 2, Number 2, June 2012, pp. 195-199(5).* **(IF: 0.64)**

Rashmi Mukherjee, **D M Dhane**, Dev Kumar Das, Arun Achar, Analava Mitra, and Chandan Chakraborty, "Automated tissue classification framework for reproducible chronic wound assessment", *BioMed Research International, Volume 14, pp. 9, 2014*. **(IF: 2.13)**

Yadav M K, **Dhane D M**, Mukherjee Gargi, Chakraborty Chandan, "Segmentation of Chronic Wound Areas by Clustering Techniques Using Selected Color Space", *Journal of Medical Imaging and Health Informatics, Volume 3, Number 1, March 2013, pp. 22-29(8).* **(IF: 0.64)**

M Maity, D K Das, **D M Dhane**, C Chakraborty, A Maiti, "Fusion of Entropy-based Thresholding and Active Contour Model for Detection of Exudate and Optic Disk in Colour Fundus Image", *Journal of Medical and Biological Engineering.* **(IF: 1.03)**

Narote, Sandipann P., Pradnya N. Bhujbal, Abbhilasha S. Narote, and **Dhiraj M. Dhane**. "A review of recent advances in lane detection and departure warning system." *Pattern Recognition* 73 (2018): 216-234. **(IF: 4.58)**

Maity, Maitreya, **Dhiraj Dhane**, Tushar Mungle, A. K. Maiti, and Chandan Chakraborty. "Web-Enabled Distributed Health-Care Framework for Automated Malaria Parasite Classification: an E-Health Approach." *Journal of Medical Systems* 41, no. 12 (2017): 192. **(IF: 2.21)**

Articles in Peer-reviewed Conference Proceedings

Maitreya Maity, **Dhiraj Manohar Dhane**, Tushar Mungle, Rupak Chakraborty, Vasant Deokamble, Chandan Chakraborty, A Secure One-Time Password Authentication Scheme Using Image Texture Features, *SSCC'16, 625, pp.283–294, CCIS, Springer Nature Singapore (2016)*

D M Dhane, M Maity, A Achar, C Bar, C Chakraborty, "Selection of Optimal Denoising Filter Using Quality Assessment for Potentially Lethal Optical Wound Images", *Elsevier Procedia (2015)*

Dhiraj M. Dhane et al., "Echocardiogram Image Enhancement and Faster Index Frame Selection", *In Proceedings of International Conference on Signal, Image and Video Processing (ICSIVP), pp.06-10, Patna, India (2012)*

Dhiraj M. Dhane and Chetan Deokar, "Key Frame Abstraction, Extraction, and Browsing Of Echocardiogram Videos", *In Proceedings of IEEE Conference on Industrial Electronics, Control & Robotics (IECR), pp.220-224, Rourkela, India (2010)*

Dhiraj Manohar Dhane
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