




DAYANANDA SAGAR ACADEMY OF TECHNOLOGY AND MANAGEMENT
22 Mile, B.M Kaval, Udayapura, Kanakapura Road, Bangalore-560082.

DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

Faculty Name	Dr. M Kusuma	
Designation	Professor	
Educational Qualification	B.E, MTech, PhD	
Experience in Years	24 Years	
Area of Interest	Bio-Medical Signal Processing, Machine Learning, Brain Computer Interface	
Email ID	kusumalak@gmail.com	

Educational Details

- Ph.D - Visvesvaraya Technological University
- M.Tech - AAIDU – Deemed University
- B.E - BMSCE, Bangalore

Personal Details

- Date of Birth: 05-05-1965
- Hobbies: Reading, Meditation, Travel, Health and Drug De-addiction camps
- Languages Known: English, Hindi, Kannada

Professional Experience

- Worked as Associate Professor in Dept of CS&E at DSCE from Jan 2013 to Feb 2018
- Worked as Assistant Professor in Dept of CS&E at DSCE from Oct 2012 to Dec 2012
- Worked as Senior Lecturer in Dept of CS&E at DSCE from Aug 2006 to Sep 2012
- Worked as Senior Lecturer in Dept of IS&E at BNMIT from Feb 2006 to July 2006
- Worked as Lecturer in Dept of IS&E at JSSATE from Nov 1998 to Jan 2006

Publications

International Journals:

- Mohanchandra, Kusuma, and Snehanshu Saha. 'Machine Learning Methods as a Test Bed for EEG Analysis in BCI Paradigms.' *Handbook of Research on Applied Cybernetics and Systems Science*. IGI Global, 2017. 186-206. DOI: 10.4018/978-1-5225-2498-4
- Kusuma Mohanchandra and Snehanshu Saha. (2016) 'A Communication Paradigm Using Subvocalized Speech: Translating Brain Signals into Speech', *Computational Intelligence and Complexity, Journal - Augmented Human Research*, Springer, 1(1), 3. DOI: <https://doi.org/10.1007/s41133-016-0001-z>
- Kusuma Mohanchandra, Snehanshu Saha, and Srikanta Murthy K. (2016) 'Evidence of Chaos in EEG signals: An application to BCI', *Advances in Chaos Theory and Intelligent Control, Studies in Fuzziness and Soft Computing* 337, pp. 609-625. Springer International Publishing, Switzerland 2016, DOI 10.1007/978-3-319-30340-6_25
- Kusuma, Mohanchandra., Snehanshu, Saha., and Lingaraju, G. M. (2015) 'EEG Based

Brain Computer Interface for Speech Communication: Principles and Applications', *Intelligent Systems Reference Library, Brain-Computer Interfaces: Current Trends and Applications*, Vol. 74, Springer-Verlag GmbH Berlin/Heidelberg. DOI: 10.1007/978-3-319-10978-7

- Mohanchandra, Kusuma., Snehanthu Saha, K. Srikanta Murthy, and G. M. Lingaraju. "Distinct adoption of k-nearest neighbour and support vector machine in classifying EEG signals of mental tasks." *International Journal of Intelligent Engineering Informatics*, Vol. 3, Inderscience, no. 4 (2015): 313-329. <https://doi.org/10.1504/IJIEI.2015.073064>
- Mohanchandra, Kusuma, G. M. Lingaraju, Prashanth Kambli, and Vinay Krishnamurthy. "Using brain waves as new biometric feature for authenticating a computer user in real-time." *International Journal of Biometrics and Bioinformatics (IJBB)* 7, no. 1 (2013): 49.

National Journals:

- G M Lingaraju, P.Nithiarasu, Kusuma M, et. al., "Real Time Interactive Steerable Scientific Visualization of Free Surface Flow in the context of Synthetic Vision", Special issue of Defense Science Journal, Vol. 61, No. 4, July 2011, pp. 299-305. DOI:<http://dx.doi.org/10.14429/dsj.61.1115>

Conferences:

- Kusuma Mohanchandra, Sindhura Rao, Ashwini S. (2017) 'Brain Controlled Chess Based on Virtual Reality Control for Paralyzed Patients', *International Conference on Recent Trends, Emerging Issues in Science, Engineering, Environment and Technology (ICRESEET-2017)*, IFERP, Goa, India. 08-09, April, 2017, DOI: 01.1617/vol4iss1pid002515
- Kusuma Mohanchandra. (2015) 'Criminal Forensic: An application to EEG', *International Conference on Recent and Emerging trends in Computer and Computational Science (RETCOMP'15)*, IEEE, Bangalore, India. 08-10, January, 2015, pp. 18-21, DOI: 10.1109/RETCOMP.2015.7090798
- Mohanchandra, Kusuma; Saha, Snehanthu; Deshmukh, Rashmi. (2014) 'Twofold classification of motor imagery using common spatial pattern', *International Conference on Contemporary Computing and Informatics (IC3I)*, IEEE, 2014 pp.434 - 439, 27-29 Nov. 2014. DOI: 10.1109/IC3I.2014.7019636
- Kusuma Mohanchandra, Snehanthu Saha. (2014) 'Optimal Channel Selection for Robust EEG Single-trial Analysis', *AASRI Conference on Circuit and Signal Processing (CSP 2014)*, London, UK, 21-22 June 2014, Elsevier, Vol 9, 64-71, DOI: 10.1016/j.aasri.2014.09.012
- Kusuma M, Lingaraju G M, (2013) 'EEG Signal Classification of Mental Task using K Nearest Neighbor and Support Vector Machine', *IEEE International Conference on Human Computer Interactions ICHCI'13*, 23-24th Aug 2013, Chennai, India
- Kusuma M, Lingaraju G M and Manjunath K. (2013) 'Classification of Single Trial EEG Signal using Wavelet Transform for Brain Computer Interface', *National Conference on Advances in Assistive and Mainstream Technologies for persons with special needs - AAMT2013*, Bhimavaram, Andhra Pradesh, India, March 5-7, 2013
- G M Lingaraju, M Kusuma, et al., (2011) 'Person Authentication System Using Brain Waves as Biometric', *Conference on Evolutionary trends in Information Technology – CETIT 2011*, 20-22 May, VTU, Belgaum
- Kusuma M, et al., (2011) 'Thought Translation System: A Brain Computer Interfacing Application to Elicit the Needs of Physically Locked-in Patients', *International Conference on Innovative Science and Engineering Technology (ICISSET-2011)*, 8th & 9th April 2011, Rajkot, Gujarat, ISBN: 978-81-906377-9-4.

Awards

- 3rd Rank from University of Mysore, P G Diploma in System Analysis, SJCE, Mysore University, 1990-92

Academic Activity

- Dissemination of knowledge through Teaching aptitude and Research attitude.
- Mentoring the students in their projects, practical programming problems and assignments
- Knowledge transfer through research work and publications.

Faculty Development Activity

- Part of the organizing committee of VTU-VGST sponsored faculty development program on “Cognitive Science and Brain Computer Interface Technology” at MSRIT from 26th – 30th March 2012

Administrative Activity

- Coordinate departmental activities involved for accreditation of NAAC & NBA
- Handling relations with students, employers, and the community
- Providing administrative support to an academic team of teaching and non-teaching faculty

Professional Membership

- Life member of Indian Society for Technical Education – LM107840

Contact Details

Professor, Department of Information Science & Engineering
Dayananda Sagar Academy of Technology & Management
Udayapura, Kanakapura Road
Bengaluru-560082
Mail ID: kusumalak@gmail.com
Phone No.: 9886520551

My Vision

- To teach with wisdom, truth, love and vision
- Consistently maintain excellent relations with students, colleagues and administrators.
- Motivate students in the area of Research & Development