

EDUCATION

Vinayaka Missions University | 2008 - 2012

- Ph.D. in Electronics and Communication Engineering.
- Development of Novel Algorithms and Architectures for Patient Care Monitoring System and Diagnosis.

University of Bangalore | 1997 - 1999

- M. E. in Electronics and Communication Engineering.

Mysore University | 1987 - 1989

- B. S. in Instrumentation Technology.

EXPERIENCE

BMS College of Engineering

Associate Professor, May 2010 to Present

- Teaching
- Mentoring/ Proctoring
- Member – BOS at Institute level
- Member – BOE at Institute level
- Coordination of department level activities for setting up of labs
- Project guidance for the undergraduate programme.
- Conduction of workshops and guest lectures
- Member of Industry-Institute Interaction Cell at Institute level
- Strengthening the departmental labs & facilities.
- Time table officer at department level

National Instruments

Hardware and Graphical System Design Intern, May 2015 to Sept 2015

- Wrote system software using LabVIEW for Patient Care and Monitoring System Signals.
- Used DAQ (MyDAQ and MyRIO) to collect, analyze and process real time Patient Data.
- Used NI Multisim and NI Ultiboard for Circuit and Power Analysis.

ACHIEVEMENTS

- Guest lecture on “Journey into light – a special life of Sir C.V. Raman” at National Science Week Programme held on 28-02-2012 at Visveswaraya InduTech museum, Bangalore.
- As a Chair person for an IEEE International Conference on communication and control devices (ICCCD), Bali, Indonesia, April. 2011
- Research work has been identified by EPFL, Center for Neuroprosthetics and Institute of Bioengineering Switzerland, one of the leading in the design and development of head caps for Brain Machine Interface. Discussions are to be taken further to the next level for fruitful progress.
- Project Guided won second Prize in project exhibition held at Dayananda Sagar college of Engineering on 17-05-06.
- Project Guided won second Prize in “SHRISTI-2006” - A State Level exhibition at GMIT, Davangere on 18-05-06

INTERNATIONAL JOURNALS

- **M. N. Mamatha** and S. Ramachandran, “Automatic Eyewink Interpretation system using face orientation recognition for Human Machine Interface”, International Journal of Computer Science and Network Security [IJCSNS], Vol. 9, No. 5, pp. 155-163, ISSN: 1738-7906, May 2009.
- **M. N. Mamatha** and S. Ramachandran, “A Novel Algorithm Design Approach for Biopotential Acquisition in Brain Machine Interface”, International Journal of Material Science and Engineering [JMSE], USA, Vol. 4, No. 8, pp. 60-65, ISSN: 1934-8959, Aug. 2010.

- **M. N. Mamatha**, S. Ramachandran and M. Chandrasekaran, "Interactive robot in human machine interface for partially paralytic patient", International Journal of Engineering Science and Technology [IJEST], Vol. 2, No. 8, pp. 3846-3853, ISSN: 0975-5462, Aug. 2010.
- **M. N. Mamatha**, S. Ramachandran and M. Chandrasekaran, "Enable The Disabled - A Smart Sensor Design Analysis in Brain Machine Interface Using Labview", International Journal of Computer applications [IJCA], Vol. 17, No. 2, pp. 1-5, ISSN:0975-8887, March 2011.
- **M. N. Mamatha**, S. Ramachandran and M. Chandrasekaran, "Design Of Bio Signal Sensors and Signal Conditioning Circuits" International Journal of Artificial Intelligent Systems and Machine Learning (CIIT) ISSN 0974 – 9667 & Online: ISSN 0974 – 9543, April 2012.
- **M. N. Mamatha**, Shreyas Moudgalya, "Voice Operated Wheelchair for the Disabled" International Journal of Artificial Intelligent Systems and Machine Learning (CIIT), ISSN 0974 – 9667 & Online: ISSN 0974 – 9543, Feb 2013.

INTERNATIONAL CONFERENCES

- **M. N. Mamatha** and S. Ramachandran, "Eyebot - A Human Machine Interface", International Conference on Convergence of Science and Engineering and Research (ICSE), Bangalore, India, April 2010.
- **M. N. Mamatha** and S. Ramachandran, "Communication Based Acquisition of Biopotentials for Patients with Cognitive Abilities", International conference on integrated intelligent computing (ICIIC), Bangalore, Aug. 2010 by IEEE Computational society.
- **M. N. Mamatha** and S. Ramachandran, "Design and Implementation of Hardware for Automatic Bio Signal Acquisition for Human Perception in Patients with Cognitive Disabilities", International Conference on System Dynamics and Control (ICSDC), Manipal, Mangalore, India, Aug. 2010.
- **M. N. Mamatha**, S. Ramachandran and M. Chandrasekaran, "Smart Sensor Design Analysis Applicable for Brain Machine Interface Using Multisim", IEEE International Conference on communication and control devices (ICCCD), Bali, Indonesia, April. 2011.
- **M. N. Mamatha**, "Virtual Patient Simulator", International Conference on Bioinformatics, Computational Biology and Biomedical Engineering (IBCBBE), organized by World Academy of Science, Engineering and Technology, Singapore, Sept. 2013.

NATIONAL CONFERENCES

- **M. N. Mamatha**, Poorna Chandra Suraj, "Parallel processing Architecture for ECG analysis" National Conference on Intelligent Instrumentation, NCII April 2006.
- **M. N. Mamatha**, K.Vijayalakshmi , "Teleremote Control of home Application" National Conference on Instrumentation, Control Systems and Automation" NCICSA January 2006.
- Shashank Narayan, Shreyas Moudgalya, **Dr. Mamatha M. N.** , "National Centre for Health Care and Disease Control-An Innovation" DRDO Sponsored IX Control Instrumentation System – CISCON, November 2012.

WORKSHOPS/CONFERENCES ORGANIZEDTIONAL

- FDP on "pedagogical Training" by National Institute of Technical Teachers Training & Research 'NITTTR' Chennai from 16th – 21st Feb 2009.
- National Conference on Networking, Embedded and wireless Systems 'NEWS 2010' at BMSCE on 06th Aug 2010.
- FDP on "Faculty training on outcome based education" in association with SPFU (Govt. of Karnataka) from 10th – 15th Jun 2013.

WORKSHOPS/CONFERENCES ATTENDED

- AICTE-STP Workshop 18th from Sept-02 to Oct 1999 at BMSCE, Bangalore on "Recent Trends in Information Technology",
- ISTE STP conference dated 22-24 May 1999 at BMSCE, Bangalore on "Total Quality Management"
- ISTE STP dated 3-17 July 1999 at BMS College of Engineering, Bangalore on "Mathematical Models for Multi criteria Decision Making in Engineering and Industry".

- Motorola Workshop from 16- 22 Oct 2000, at BMSCE, Bangalore on “Train the Trainer on M-Core microcontroller and code warrior IDE software tool”.
- ISTE STP on “Digital controller design and application “from 15 -28 Jun 2002, at BMSCE, Bangalore.
- Participated in “VLSI and Embedded System Design tool” seminar on 4th -Nov 2004 at BMS College of Engineering, Bangalore.
- AICTE -National seminar on intelligent Instrumentation for Biological science from 26-27 Nov at B.V.B College of Engineering. Hubli.
- ISTE STP sponsored “Recent Advances in Image Processing and its Applications in Engineering “from 01 -07th Mar 2005 at Dr Ambedkar Institute of Technology Bangalore.
- Workshop on PIC Microcontrollers from 21-22 Mar 2005, SIT, Tumkur.
- Seminar attended “Recent trends in Bio-Medical Instrumentation” on 3rd June 2005 at RVCE, Bangalore.
- Participated in “Constitution of India and Professional Ethics” from 02-04 Sept 2005 at BMS College of Engineering, Bangalore.
- Participated in “Emerging Trends in VLSI Technology” on 18 -23 Dec 2006 at Dr Ambedkar Institute of Technology. Bangalore.
- ISTE STP sponsored “Software Testing” from 19 Aug -01 Sept 2006 at BMS College of Engineering, Bangalore.
- ISTE STP sponsored “Exploring Business Intelligence” 11th -24th Aug 2007 at BMS College of Engineering, Bangalore.
- Conference on “HDL Simulation and Synthesis programming” on 04-06 Feb 2008 at MSRIT, Bangalore.
- TEQIP Sponsored IEEE one week workshop – Aug 2008, BMSCE on “Image and Video Processing and Applications”.
- AICTE-ISTE STP “Biomedical Systems and Control” from 25th to 31st March 2009 at BMSCE.
- ISTE FDP “VLSI Design Methodology” from 26th to 30th July 2010 at SJBIT, Bangalore.
- GOK Sponsored FDP from 27th to 29th Jan 2011 at SJBIT, Bangalore on “Automotive Infotronics”.
- IEEE- IET FDP from 18th -19th March 2011 at BMSCE on “Embedded Control System Design using NI-Labview”.
- VTU-VGST FDP “Cognitive Science and Brain Computer Interface Technology” on 26th – 30th March 2012.

COURSES TAUGHT AT UNIVERISTY

- Instrument Transducers
- Biomedical Instrumentation
- Computer Organization and Architecture
- Measurement Techniques
- Constitution of India and Professional Ethics
- Communication Systems
- Business Management
- Optical Instrumentation
- C programming
- Modeling of Biological Systems

PROFESSIONAL AFFILIATIONS

- Life Member of Indian Society for Technical Education (ISTE) - LM33922.
- Life Member of Bio Medical Society of INDIA (BMSI) – L806
- Life Member of ACC Society of INDIA (ACCS) – L171F1200359

COMMUNITY SERVICE

- Has inspired children of Anganvadi schools by conducting various activities such as quizzes, memory driven gaming, and there by motivating the social cause of these under privileged kids to attend schools.