

DEPARTMENT OF BIO-MEDICAL ENGINEERING

INTRODUCTION

Department of Bio-Medical Engineering was established in the year 2002. It conducts B.Tech Programme in Bio-Medical Engineering. The Department has well-equipped laboratories. It focuses on practical applications in the field of Medical Instrumentation, Medical Signal Image Processing.

Assets for the department are qualified faculty. Students are exposed to Seminars and workshops along with personality development programs.

The department is strengthened with a total of 9 faculties out of which 1 is pursuing PhD and the remaining hold M.Tech degree. The department has organized many workshops and seminars.

Research Projects/FDP's/Seminar Grants/Sanctioned

S.no	Name of the faculty	Title	Name of the funding agency	Amount in lakhs	Year
1	T. Padma	MODROBS	AICTE	14.5	2013

FACULTY AND THEIR PUBLICATIONS:

Mrs. T. Padma,(ID-208) **Associate Professor of BME; Coordinator, FDP; Secretary, AAC**

Qualifications: PhD(ECE) (Pursuing) From JNTU, M.E(Medical Electronics) From Anna University in 1997, B-Tech (ECE) From RECW in 1993.

Experience: 20 years

Research Interest: ECG Signal Processing

Journal Publications/ Conference Proceedings: 12

Journal publications

International

1. Tatiparti Padma, Chepuri Bhavana, Peddamallu Srividya, **“Wavelet Based ECG Signal Component Identification”**, International Journal of Research in Engineering and Technology, Volume 03, Issue 05, May 2014, Pg 703 – 706, eISSN: 2319-1163|pISSN: 2321-7308.
2. Padma T, Madhavi Latha M, Abrar Ahmed, **"ECG Compression and Lab View Implementation"**, Journal of Biomedical Sciences and Engineering Scientific Research USA, 2009, 2, 177-183
3. Padma T, Madhavi Latha M, **"Compression Techniques for ECG Transmission"**, Medical Journal of DY Patil University Kolhapur, 2009, 2, 85-91

Conference Proceedings

International

1. T. Padma, P. Manju Bhargavi, S. Bhargavi, K. Satish Kumar, **“Image data compression using DWT and Bit plane slicing for Space applications”**, International Conference on Recent Advances in Design, Development and Operation of Micro Air Vehicles (IC-RAMAV-2013), JNTU, Hyderabad, ISBN: 9789351071693, Pg. 167-169, Elsevier Publications
2. T. Padma, Satish Kumar Kotha, **“Application of ECG Compression Technique on Ventricular Tachycardia Signals”** in (Exploit current research for harnessing the field of Life sciences) the Biofest-2012, international conference, Hyd , conference proceedings pg 18.
3. T. Padma, Satish Kumar Kotha, **“Application of DCT Technique for compression of Supra Ventricular Arrhythmia Signals”** for 2nd International Conference on Biomedical Engineering and Assistive Technologies (BEATS 2012), National Institute of Technology, Jalandhar, INDIA.



4. Padma T, Madhavi Latha M, Jaya Kumar K, Balaji B, "**Designing a Low Power Sigma Delta Modulator and HRV Analysis for ECG System**", International Conference on Advanced Computing Techniques, GRIET, Hyderabad, 2008, 939-944
5. Padma T, Madhavi Latha M, Jaya Kumar K, "**Decision Making Algorithm Through LVQ Neural Network for ECG Arrhythmias**", International Conference of Biomedical Engineering , International Federation for Medical and Biological Engineering Springer Link Singapore, 2008, 85-91
6. Padma T, Madhavi Latha M, Jaya Kumar K, "**Compression Techniques for ECG Transmission**", International Conference of Biomedical Engineering & Nanotechnology, DY Patil University Kolhapur, 2008
7. Padma T, Madhavi Latha M, "**PC Based Wireless ECG Monitoring System**", Spring 2006 Faculty Student Multidiscipline International Conference on Research and Teaching, OOI Consortium for Teaching, Research, Learning and Development USA, 2006, 25-29

National

1. T. Padma, Satish Kumar Kotha, "**Discrete Cosine Transform for ECG Compression**", 44th Mid-Term Symposium on ICT in Space, Defense and Industrial Applications, IETE Hyderabad, 2013.
2. T.Padma, Satish Kumar Kotha, " **DCT compression on Malignant Ventricular Arrhythmia signals**" PIC-2012, IETE Pallakad, conference proceedings pg 150-154

**Mr. Satish Kumar Kotha,(ID-811) Assistant Professor and Head,
Dept. of BME**

Qualifications:

M.S (Biomedical Engineering) (Louisiana Tech University, USA -2009),
B.Tech (Biomedical Engineering) (JNTU, Hyderabad - 2007).

Experience: 6 Years

Research interest: Medical Image Processing



Journal Publications/Conference Proceedings: 7

Journal publications

International

1. Satish Kumar Kotha, Jahnavi Pinjala, Kavya Kasoju, Manvitha Pothineni, "**Gesture Recognition System**", International Journal of Research in Engineering and Technology, May 2015, Vol. 4, Issue 5, pp 99-104, eISSN: 2319-1163|pISSN: 2321-7308.

2. Satish Kumar Kotha, Gujjula Sanketa, K. Purnima, K. Ramya Krishna, **“Diagnosis of Diabetic Retinopathy and Glaucoma using Fundus and OCT Images”**, International Journal of Innovative Research in Advanced Engineering, April 2015, Vol. 4, Issue 4, pp 208-214, eISSN: 2319-1163|pISSN: 2321-7308.

Conference proceedings

International

1. K. Satish Kumar, T. Padma, P. Manju Bhargavi, S. Bhargavi, **“Image data compression using DWT and Bit plane slicing for Space applications”**, International Conference on Recent Advances in Design, Development and Operation of Micro Air Vehicles (IC-RAMAV-2013), JNTU, Hyderabad, ISBN: 9789351071693, Pg. 167-169, Elsevier Publications
2. Satish Kumar Kotha, T. Padma, **“Application of DCT Technique for compression of Supra Ventricular Arrhythmia Signals”** for 2nd International Conference on Biomedical Engineering and Assistive Technologies (BEATS 2012), National Institute of Technology, Jalandhar, INDIA.
3. Satish Kumar Kotha, T. Padma, **“Application of ECG Compression Technique on Ventricular Tachycardia Signals”** in (Exploit current research for harnessing the field of Life sciences) the Biofest-2012, international conference, Hyd , conference proceedings pg 18.

National

1. T. Padma, Satish Kumar Kotha, **“Discrete Cosine Transform for ECG Compression”**, 44th Mid-Term Symposium on ICT in Space, Defense and Industrial Applications, IETE Hyderabad, 2013.
2. T.Padma, Satish Kumar Kotha, **“ DCT compression on Malignant Ventricular Arrhythmia signals”** PIC-2012, IETE Pallakad, conference proceedings pg 150-154

Mrs. Bhargavi Sundara,(ID-764) Assistant Professor, Dept. of BME

Qualifications: **M. Tech** (Embedded Systems) (JNTU - 2013),
B.Tech (Biomedical Engineering) (JNTU, Hyderabad - 2009).

Experience: 6 Years

Research interest: Rehabilitation Engineering, Biomaterials



Journal Publications/Conference Proceedings: 2

Journal publications

International

1. Bhargavi Sundara, Dr. Kalyana Chakravarthi Sarvepalli, Sri Harsha Davuluri, “**GSM based Patient Monitoring System in NICU**”, International Journal of Research in Engineering and Technology, eISSN: 2319-1163|pISSN: 2321-7308, Volume 02 Issue 07, Jul 2013, Pg. 120-123

Conference Proceedings

International

1. S. Bhargavi, K. Satish Kumar, T. Padma, P. Manju Bhargavi, “**Image data compression using DWT and Bit plane slicing for Space applications**”, International Conference on Recent Advances in Design, Development and Operation of Micro Air Vehicles (IC-RAMAV-2013), JNTU, Hyderabad, ISBN: 9789351071693, Pg. 167-169, Elsevier Publications

Mr. A.V. Sandeep Reddy,(ID-959 Assistant Professor, Dept. of BME

Qualifications: **M. Tech** (Biomedical Signal Processing and Instrumentation) (VTU - 2011),
B.Tech (Electronics, Instrumentation and Control Engineering) (SVU - 2009).

Experience: 4 Years

Research interest: Bio-Transducers and Applications



Journal Publications/Conference Proceedings: 3

Journal publications

International

1. Sandeep Reddy A.V, M.Prem Kumar, Abid Hussain Zaidi, **“Dual-Purpose blind Navigation Box”**, IJRET, Vol-3, pg 359-362, eISSN:2319-1163,p ISSN:2321-7308, May-2014.
2. Sandeep Reddy A.V, **“Analysis on Parameters affecting sleep apnea and control measures using low cost PAP machine”** IJRET, Vol-1,issue-1, pg 63-77,ISSN:2319-1163.

**Conference Proceedings
International**

1. Sandeep Reddy A.V, M.Prem Kumar, Abid Hussain Zaidi, **“Dual-Purpose blind Navigation Box”**, TITCON-14, AVS Engineering College, Salem, 2014.

Ms. P. Manju Bhargavi, (ID-844)Assistant Professor, Dept. of BME

Qualifications: M. Tech (Embedded Systems) (JNTU - 2011),
B.Tech (Biomedical Engineering)(JNTU - 2006).

Experience: 10 Years

Research interest: Biomedical Signal Processing and Image Processing



Journal Publications/Conference Proceedings: 4

Journal publications

International

1. P. Manju Bhargavi, V. Sai Kiran Mayee, S. Manvitha, T. Manaswini, **“A Comparison of Image segmentation Techniques, OTSU and Watershed for X- Ray Images”**, International Journal of Research in Engineering and Technology, April 2015, Vol. 4, Issue 04, pp: 720-723, eISSN: 2319-1163|pISSN: 2321-7308.

Conference proceeding

International

1. S. Bhargavi, K. Satish Kumar, T. Padma, P. Manju Bhargavi, **“Image data compression using DWT and Bit plane slicing for Space applications”**, International Conference on Recent Advances in Design, Development and Operation of Micro Air Vehicles (IC-RAMAV-2013), JNTU, Hyderabad, ISBN: 9789351071693, Pg. 167-169, Elsevier Publications
2. M.Prem kumar, P.Manju Bhargavi, K.Madhavi, **“A Wireless biomedical equipment for health monitoring”** 14th International Conference, CONIAPS XIV, SVNIT, SURAT, Gujarat, 2011.

National

1. P.Manju Bharghavi, Basireddy Krishnaja, Ennawar Prajwala, Sangem Manisha,” Automated Detection of the Magnitude of Gaze Correction for Strabismus Patients” 1st national level Conference, IDCEME 15, GRIET, HYD 2015.

Mr. M. Prem Kumar, (ID-866) Assistant Professor, Dept. of BME

Qualifications: M. Tech (Embedded Systems) (JNTU - 2012),
B.Tech (Biomedical Engineering)(JNTU - 2006).

Experience: 6 Years

Research interest: Bio-Instrumentation

Journal Publications/Conference Proceedings: 6

Conference proceedings

International

1. M.Prem Kumar, Sandeep Reddy A.V, Abid Hussain Zaidi, “**Dual-Purpose blind Navigation Box**”, IJRET, Vol-3, pg 359-362, eISSN:2319-1163, p ISSN:2321-7308, May-2014.
2. M.Prem Kumar, Sandeep Reddy A.V, Abid Hussain Zaidi, “**Dual-Purpose blind Navigation Box**”, TITCON-14, AVS Engineering College, Salem, 2014.
3. M.Prem kumar, P.Manju Bhargavi, K.Madhavi, “A Wireless biomedical equipment for health monitoring” 14th International Conference, CONIAPS XIV, SVNIT, SURAT, Gujarat, 2011.
4. M.Prem Kumar, Akitha kolloju, Daraksha, “**Myoelectric Arm – For The Half Limb Amputee**” ,IJRET, Vol-4, eISSN:2319-1163, pISSN:2321-7308, Oct-2015.

National

1. M.Prem Kumar, Akitha kolloju, Daraksha, “**Myoelectric Arm – For The Half Limb Amputee**” 1st national level Conference, IDCEME 15, GRIET, HYD 2015.
2. M.Prem Kumar, M.Akshay Nair, T.K.S.Krishna, “**Detection Of Raw Eeg Using Neurosky Mindwave Headset**” 1st national level Conference, IDCEME 15, GRIET, HYD 2015.



Mrs. B. Saritha, (ID-1138)Assistant Professor, Dept. of BME

Qualifications: **M. Tech** (Embedded Systems) (JNTU - 2013),
B.Tech (Biomedical Engineering)(JNTU - 2006).

Experience: 8 Years

Research interest: Bio-Instrumentation



Journal Publications/Conference Proceedings: 3

Journal publications

International

1. B. Saritha, Mufeeda Tabassum, Nagapuri Rajitha, Merugu Shruthi, **“Detection of Heart Murmurs using Phonocardiographic Signals”**, International Journal of Research in Engineering and Technology, April 2015, Vol 4, Issue 4, pp 547-550, eISSN: 2319-1163|pISSN: 2321-7308.

Conference proceedings

International

1. B. Saritha, D. Kiran Kumar, **“A Smart Android Mobile Jammer”**, International Conference on Innovations in Electronics and Communication Engineering, on 18th – 19th July 2014, at GNIT,
2. B.Saritha, **“Sleep methods- An efficient way to reduce the leakage power”** International conference on smart systems (ICSS-2013) on 7th -8th Oct 2013 at JBIET.