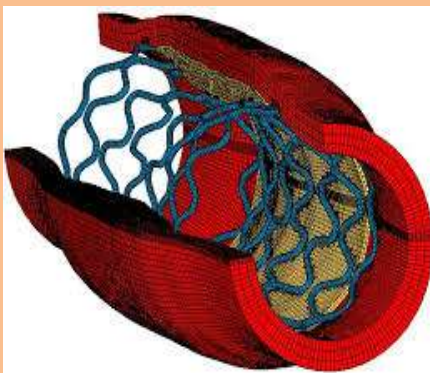


## NEWSLETTER-2015



JIS COLLEGE OF ENGINEERING, KALYANI  
(AN AUTONOMOUS INSTITUTE)



**TEQIP Sponsored International Conference on “ADVANCEMENTS OF MEDICAL ELECTRONICS”  
[ICAME2015] on 29<sup>th</sup> & 30<sup>th</sup> January, 2015**

The 1st International conference on “Advancements of Medical Electronics” was organized at JIS College of Engineering Kalyani from January 29-30th 2015 by the Department of Biomedical Engineering and The Department of Electronics & Communication Engineering inviting participation from experts in respective fields which included **Embedded Systems & its Applications in Healthcare , Medical Image Processing & Analysis, DSP & Clinical applications , Biomedical Instrumentation and Measurements**. The Objective of the conference was to identify the immense scope of Medical Electronics in Industry , Academia and Research. The interdisciplinary nature of the Topic invited paper presentations from authors of Engineering Institutions all over the Globe . Prof. Yoshida and Prof. Ritenour expressed their immense satisfaction over the deliberations and lectures at the conference and congratulated the Organizers from JIS College of Engineering for coming up with a Conference of this stature. Mr. Taranjit Singh MD JIS Group expressed his sincere thanks to all the dignitaries and delegates who had come from different parts of the Globe to join the conference and make it an immense success.

The Conference was overwhelmed by the presence of Distinguished and eminent Professors like Hiro Yoshida from Harvard Medical School, Prof. E. Russell Ritenour from University of South Carolina, Prof. Manivannan from IIT Chennai, Prof. Manjunatha from IIT Kharagpur, Prof. Suman Chakraborty from SMST IIT Kharagpur and many more.

The Students arranged an Engineering Model Exhibition which was immensely appreciated by the dignitaries like Prof. Ajoy Ray, Director IEST. Prof. S M Chatterjee mentioned in his Distinguished Lecture that ‘Our expanding understanding of the role that biomedical application plays in every aspect of our life and affects health care motivated the mission of this conference.’

#### **Keynote Speech & Distinguished Lectures at the Conference ICAME 2015**

The Keynote Speech was delivered by Prof. Hiroyuki Yoshida of Director, 3D Imaging Research, Department of Radiology, MGH & Associate Professor of Radiology, Harvard Medical School on the Topic ‘**Advancement of Diagnostic Imaging Decision Support Systems**’, Prof. E. Russell Ritenour Professor and Chief Medical Physicist, Dept. of Radiology and Radiological Sciences Medical University of South Carolina the Guest of Honour in the Conference delivered a Distinguished Lecture on the Topic ‘Magnetic Resonance Imaging Safety Issues at High Field Strength’. Other Distinguished Lectures were invited from Prof. M Manivannan, Professor IIT Madras & Chief Software Architect MIT Touchlab, Cambridge MA on the Topic ‘**Robotics in Medical Education and Training**’, Prof. Suman Chakraborty, IIT Kharagpur on the Topic: ‘**Microfluidics for Healthcare**’, Prof. Avijit Mookerjee, Emeritus Professor SN Bose National Centre for Basic Science on the Topic **Nanostructures and many more**.

#### **R & D Initiative (2015):**

##### **Newly sanctioned Project**

**Project Title:** A Spirometric study on Smokers and nonsmokers Engineering College Students

**Principal Investigator:** Mr. Souvik Das

**Funded By:** UGC, Govt. of India

**Duration:** 2 Years

##### **Ongoing Project:**

i) **Project Title:** Design and Development of a Cardiac Parameter Monitoring System Using Common Mobile Phones for Affordable Patient Care.

**Principal Investigator:** Dr. Meghamala Dutta

**Funded By:** AICTE, Govt. of India

**Duration:** 3 Years.

ii) **Project Title:** Development of cost effective real time acquisition, processing, analyzing and monitoring system of biosignal for non invasive diagnosis and prediction of cardiovascular abnormalities.

**Principal Investigator:** Dr. Meghamala Dutta

**Funded By:** UGC, Govt. of India

**Duration:** 2 Years

iii) **Project Title:** Development of Bone Paste from Waste Egg-Shell for Bone Grafting  
**Principal Investigator:** Dr. Sandip Bag  
**Funded By:** UGC, Govt. of India  
**Duration:** 2 Years

#### Faculty Achievement

1. **Anwasha Khasnobish-** Received Ph.D Degree from Jadavpur University
2. **Dr. Karabi Ganguly** – Best Faculty (Dept. of Biomedical Engg., JISCE) Award in JIS Samman 2015
3. **Dr. Sandip Bag-** Session chair in CPDM-2015 at IEST, Shibpur
4. **Souvik Das** – received Best Paper Award in FOSET Academic Meet-2015.
5. **Dr. Meghamala Dutta-** Convener- ICAME-2015

#### Student Achievement

NAME	ACHIEVEMENTS	ORGANIZER/PROGRAM ME	DATE	POSITION
AROMA MUKHERJEE	1. Paper ppt. 2. Debate competition 3. Best speaker 4. Debate	ICAME JISTECH JIS samman Anti Ragging	Jan.2015 2015 May,2015 Nov. 2015	2 <sup>nd</sup>  1st
SUBIR KAR	1. Paper ppt.  2. Internship on Project based Training on Microcontroller CETE, kolkata	6 <sup>th</sup> All India Inter Engineering College Meet-FOSET Department of Electronics & Information Tech. Govt. of India	2015  July-Aug 2015	1st
IMON BISWAS	1. Drama Competition 2. Paper Ppt.	Inter Departmental FOSET	June-2015 2015	2 <sup>nd</sup> Participant
MADHURA SUR	1. Drama Competition 2. Paper Ppt.	Inter Departmental FOSET	June-2015 2015	2 <sup>nd</sup> Participant
PALLAVI KUMARI	1. Drama Competition	Women's empowerment (women Cell)	2015	Participant
PAYEL KOLEY	1. Drama Competition 2. Dance Competition	Inter Departmental Jis Samman	Jun.2015 May.2015	2 <sup>nd</sup> 1 <sup>st</sup>
SUCHARITA SARKAR	1. Drama Competition	Inter Departmental	Jun.2015	2 <sup>nd</sup>
ARUNIMA JANA	1. Drama Competition	Inter Departmental	Jun.2015	2 <sup>nd</sup>

#### Faculty involvement in national/International Conference organized at JISCE, Kalyani

1. **Dr. Meghamala Dutta,** Convenor, International Conference on Advancements of Medical Electronics (ICAME 2015)
2. **Dr. Sandip Bag,** Co-Convenor, International Conference on Advancements of Medical Electronics (ICAME 2015)
3. **Dr. Sandip Bag,** Editor, Advancements of Medical Electronics, Proceedings of the First International Conference, ICAME 2015
4. **Dr. Karabi Ganguly,** Editor, Advancements of Medical Electronics, Proceedings of the First International Conference, ICAME 2015

### Seminar/Conference/Workshop Attended by Faculty Members:

#### Dr. Meghamala Dutta

1. Workshop on Product Design and Innovation at IIT Delhi, 2015
2. Workshop on Pedagogy from IIT Kharagpur, 2015.
3. AICTE Sponsored FDP on Management Research Methodology 21st April to 4th May 2015 at JIS College of Engineering Kalyani.

#### Dr. Sandip Bag

1. TEQIP Sponsored one week training program on Advanced Pedagogy at JISCE on 24-30 June, 2015.
2. TEQIP Sponsored 1<sup>st</sup> International Conference on Advancement of Medical Electronics at JISCE on 29<sup>th</sup>-30<sup>th</sup> January, 2015.
3. ISTE two week main workshop on “Environmental Studies” at JISCE on 2<sup>nd</sup>-12<sup>th</sup> June, 2015.

#### Dr. Karabi Ganguly

1. ISTE two week main workshop on “Environmental Studies” at JISCE on 2<sup>nd</sup>-12<sup>th</sup> June, 2015.
2. TEQIP Sponsored 1<sup>st</sup> International Conference on Advancement of Medical Electronics at JISCE on 29<sup>th</sup>-30<sup>th</sup> January, 2015.
3. TEQIP Sponsored one week training program on Basic Pedagogy at JISCE on 30 June – 5 July, 2015.

#### Mr. Souvik Das

1. ISTE two week main workshop on “Environmental Studies” at JISCE on 2<sup>nd</sup>-12<sup>th</sup> June, 2015.
2. TEQIP Sponsored 1<sup>st</sup> International Conference on Advancement of Medical Electronics at JISCE on 29<sup>th</sup>-30<sup>th</sup> January, 2015.

### Publications by Faculty Members:

1. **Ganguly Bhattacharjee K**, Manna N, Sheikh FT (2015). A Statistical Approach to Study Pitch Variation for Prediction of Voice Disorder. *International Journal of Engineering and Advanced Technology Studies*. ISSN (Print) 2053-5783. ISSN (Online) 2053-5791.3(3):32-42.
2. **Ganguly Bhattacharjee K**, Manna N, Bhattacharya S, Mallick B (2015). ECG Signal Acquisition System for Remote Healthcare Service with Telemetric Capability. *Innovative System Design and Engineering*. ISSN (Print) 2222-1727. ISSN (Online) 2222-2871.6(5):10-17
3. Dey A, Pal A, Mukherjee A and **Ganguly Bhattacharjee K** (2015). An Approach for Identification Using Knuckle and Fingerprint Biometrics Employing Wavelet Based Image Fusion and SIFT Feature Detection. *1<sup>st</sup> International Conference on Advancements of Medical Electronics (ICAME 2015)*. ISBN 978-81-322-2255-2. ISBN 978-81-322-2256-9 PP 149-159.
4. **Dutta M** et al (2015) Reliable, Real-Time, Low Cost Cardiac Health Monitoring System for affordable Patient Care. ‘Lecture Notes in BioEngineering’, Springer book Series, 2015.
5. Sur M, Biswas I, and **Das S**; A Low-Cost and Portable Model of Emotional Stress Indicator for Health Care System. Proceedings of 6th All India Inter Engineering College Academic Meet – 2015 & Science & Technology Exhibition for a Sustainable Society.
6. Kar S, Mukherjee A, and **Das S**: A Low-cost and noninvasive model of apnea detection for patient care Monitoring. Proceedings of 6th All India Inter Engineering College Academic Meet – 2015 & Science & Technology Exhibition for a Sustainable Society.
7. S Bhattacharyya, D Basu, A Konar, **DN Tibarewala**: Interval type-2 fuzzy logic based multiclass ANFIS algorithm for real-time EEG based movement control of a robot arm. *Robotics and Autonomous Systems* 68, 104-115, 2015
8. S Bhattacharyya, M Pal, A Konar, **DN Tibarewala**: An interval type-2 fuzzy approach for real-time EEG-based control of wrist and finger movement. *Biomedical Signal Processing and Control* 21, 90-98.
9. S Dey, R Bhimani, A Mazumdar, P Ghosh, **DN Tibarewala**: Multifractal Detrended Fluctuation Analysis used to analyse EEG signals originating from different lobes of Brain. *Recent Trends in Information Systems (ReTIS)*, 2015.
10. P Ghosh, A Mazumdar, S Bhattacharyya, **DN Tibarewala**, M Hayashibe: Functional connectivity analysis of motor imagery EEG signal for brain-computer interfacing application. *7th International IEEE/EMBS Conference on Neural Engineering (NER)*, 210-213.
11. A Mazumdar, A Rakshit, **DN Tibarewala**: A back-propagation through time based recurrent neural network approach for classification of cognitive EEG states. *Engineering and Technology (ICETECH)*, 2015 IEEE International Conference on, 1-5.
12. **Anwasha Banerjee**, Monalisa Pal, **DN Tibarewala**, Amit Konar: Electrooculogram based blink detection to limit the risk of eye dystonia. *Advances in Pattern Recognition (ICAPR)*, 2015, 1-6