



NEWSLETTER-2011

Biomedical Engineering

JIS COLLEGE OF ENGINEERING, KALYANI (AN AUTONOMOUS INSTITUTE)





AICTE Sponsored National Seminar on "Biomedical Engineering Research and Application: Present Day Scenario and the Future (BERA -2011) 29^{th} - 30^{th} July, 2011.

The National Seminar on Biomedical Engineering Research and Application: Present Day Scenario and the Future (BERA – 2011) is envisaged to open up windows for multidisciplinary interactions among the students, faculty members, R & D Community, Industry Personnel of Electrical, Electronics & Communication, Biomedical Instrumentation, Computer Science & Engineering and Information Technology. The Seminar BERA 2011 was organized by the Dept. of Biomedical Engineering, JISCE, Kalyani on 29th – 30th July 2011 with financial support from AICTE and JIS Group. The seminar provides an ideal opportunity for the researchers from industry and academician, R & D laboratories to ignite students mind towards research and development and for faculty members and practicing engineers to share research outcomes and initiate collaboration in current areas of research relevant to the needs of the society.

A number of papers in the areas of Biomedical Instrumentation, Biomedical Signal Processing, Biomedical Imaging and Image Processing, Tissue Engineering, Healthcare System & Medical Technology, Biomaterials and Biomechanics were received. We have six invited lectures by eminent academicians and industry personnel from Siemens India Limited, Jadavpur University, Fortis Hospital & Quadra Diagnostics Ltd. We have over thirty five contributed papers which were presented in six oral sessions.









Faculty Achievement

Dr. Sandip Bag – Delivered invited talk in an All India Seminar on "Advancement in Polymer Materials in Health Care Engineering" at Institution of Engineers (India), Kolkata, 2011.

Dr. Meghamala Dutta – Received Seminar grant for AICTE.

Mrs. Karabi Ganguly - Ph.D Thesis Submitted from Jadavpur University.

Publication by Faculty Members (2011):

- 1. **Bag S** & Pal S (2011): Bioactive coating over polymer-ceramic composite an ideal synthetic bone substitute. International Journal of Pharma and Biosciences, Vol 2(4), 2011, pp. 242-249.
- 2. **Bag S** & Pal S (2011): Characterization of bioactive coating over polymer-ceramic composite under cyclic loading. International Journal of Biomedical Engineering and Consumer Health Informatics, Vol.-3(2), 2011, pp. 73-76.
- 3. Mandal D, **Ganguly Bhattacharjee K,** Manna N. (2011). Cough Monitoring System. BERA 2011. PP 23-27.
- 4. Ganguly S, Ganguly Bhattacharjee K, Manna N, Bhattacharyya P (2011). Low Cost Temperature Monitoring System. BERA 2011. PP 46-51.
- 5. **Ganguly Bhattacharjee K**, Halder UC, Sinha AK (2011). The roles of estrogen and progesterone receptors in the synthesis of maspin, an anti breast cancer protein, through the production of nitric oxide in human breast cancer. ICMSP100. PP10.118. (Abstract).
- 6. Sharma SK, Bhowmick S and Das S. Stabilometric analysis of postural steadiness of post-stroke hemiplegic patients; Academic Meet 2011, organised by Forum of Scientists, Engineers and Technologists, held at West Bengal University of Technology, Kolkata (West Bengal), March 12-13, 2011.
- 7. Das S and Pal S. The design of a low-cost galvanic skin response meter, Golden Research Thoughts, pp. 63-66, Vol.1(2), 2011.(ISSN No: 2231-5063, Impact Factor-2.2052).

- 8. **Das S** and Tibarewala D.N. Stabilometric postural steadiness analysis of post-stroke hemiplegic patients, International Journal of Engineering Science and Technology, pp. 4626 4637, Vol. 3(6), 2011.(ISSN No: 0975-5462).
- 9. Das S and Roychowdhury R. A cost-effective noninvasive model for apnea detection; 19th IEEE Workshop on Nonlinear Dynamics in Electronic Systems, organised by Indian Institute of Chemical Biology and Saha Institute of Nuclear Physics, Kolkata (West Bengal), March 8-11, 2011.
- 10. Das S and Tibarewala DN. Stabilometric stance stability analysis of below fifty-years age post-stroke hemiplegic patients; National Conference on Industrial Engineering, organised by WBUT and NPC, Kolkata, and held at West Bengal University of Technology, Kolkata (West Bengal), February 17-18, 2011.
- 12. **Dutta M:** Analysis of Myoelectric Signals for below Elbow Amputation for the development of a Prosthetic Arm Journal of Chemical Biological and Physical Sciences Nov.2011-Jan.2012. Vol.2.No.1, 350-358.
- 13. Dutta M: A Novel Low-Cost Real-Time Approach to Heart Beat Monitoring and Analysis, Meghamala Dutta & Sourav Dutta Proceedings for the first International Conference on the Convergence of Optics & Electronics, COE 2011 Science City, Kolkata.
- 14. **Dutta M:** Rv 3872-A potential serodiagnostic marker for TB infected East Indian Population: Can modeling predict the accuracy of the tool, CIMPA 2011, Cape Town South Africa, 13th -18th July 2011.
- 15. **Dutta M:** A Genetic Algorithm Based Approach to the design of a Low Cost Prosthetic Arm. Pages 96-101: Proceedings for the AICTE sponsored National Seminar on Biomedical Engineering Research & Application: Present Day Scenario and the Future, JIS College of Engineering 29th -30th July 2011.

Seminar/ Conference/Workshop Attended by Faculty Members:

Dr. Meghamala Dutta - CIMPA Workshop, Cape Town South Africa.

Dr. Meghamala Dutta - International Conference on Advances in Optics & Electronics, Science City, Kolkata, March, 2011

Dr. Sandip Bag - All India Seminar on "Advancement in Polymer Materials in Health Care Engineering" at Institution of Engineers (India), Kolkata, 2011.

Mrs. Karabi Ganguly - International Conference, ICMSP100, University of Calcutta, 21/09/11 to 23/09/11.

Mr. Souvik Das - AICTE Sponsored National Conference ENERGY SYSTEM PLANNING, IMPLEMENTATION AND OPERATION, (August 19, 2011), organised by EE Dept., JIS College of Engineering, Kalyani, Nadia, West Bengal