

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING



Department of Electronics and Communication Engineering organized a Three day workshop on **“Inquiry-Based Biomedical Signal Processing Laboratory: From Practice to Simulation”** by the experts from Biopac, New Delhi, India from Sept 21st – 23rd 2017. It was conducted by Mr. Vineet.

The aim of the workshop was to serve researchers, developers, educators working in the area of Biomedical Signal Processing, wireless area network and their application work as well as to exchange ideas.

Biomedical Signal Processing Laboratory incorporates several components that enhance its usefulness for inquiry-based learning. The Laboratory orients around the physical construction and testing of a variety of simple signal processing circuit modules, introduced as lessons. The characteristics of each module can be easily determined through measurement with a BIOPAC data acquisition system. Additionally, the system software permits simple comparisons between real-world and simulated signal processing module characteristics. The modules can be combined in a step-by-step fashion to create a variety of sophisticated and

functional signal processing systems. Signal processing systems established by the Laboratory provide meaningful outputs from signals sourced from the student's own body. Through the application of an single, easy-to-use data acquisition system and associated software, students can build and test signal processing modules, verify their performance against mathematical simulation using graphical comparisons, combine modules, collect physiological signals sourced from their own bodies and then analyze the results. In the process of collecting data directly from their own bodies, students' curiosity is stimulated and they gain more control over their own learning by being able to test and retest to more fully understand the steps involved in scientific inquiry.

More than 250 students, 50 participants and 25 faculty members have attended the workshop.

Workshop was a joint effort of Dr. Shruti Jain (Associate Professor, Department of ECE) and Dr. Meenakshi Sood (Assistant Professor, Department of ECE).



