

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**



Department of Electronics and Communication Engineering organized a Three day workshop on “**Bio Medical Signal Processing (Wired techniques v/s Wireless techniques)**” by the experts from ADInstruments, New Delhi from Sept 21st – 23rd 2017. It was conducted by Mr. JKL Prasad (BDM - North & East) and Mr. Muktesh Sharma (Application Specialist - North).

The aim of the talk to introduce the Researchers, Engineering students and Educators with Innovative, Powerful, Flexible and Accurate Wireless Products (Delsys and Equivital) and Data acquisition system (Teaching system) of ADInstruments which will help them to record and analyze data quickly and efficiently. Our wireless physiological recording solutions are able to stream a broad range of signals direct into LabChart software so that user can simultaneously display and analyse multiple signals in real-time.

Delsys Trigno Wireless system incorporates all the functionality essential to acquire and analysis of raw and filtered EMG, Triaxial (Acceleration, Rotational Velocity and Magnetic orientation) signals. It comprises a library of ready-to-use calculations for signal processing and calculations the way user wants. User-friendly graphical interface, quick view tools and

batch processing capabilities make post-processing of EMG, biomechanical sensors signals simple and efficient. It allows seamless integration with video files and external data files via Import/Export features. It can be integrated with powerful engineering tools like MATLAB and LabVIEW. It supports frame-by-frame video playback option for inspecting the EMG activity collected in synchronization with 3rd party video capturing system.

Equivalant Wireless system records and intelligently processes data measured from the real-time mobile person and able to transmit this over a wireless interface. It measures ECG, heart rate, breathing rate, skin temperature, activity and body position, and connects with external sensors to store and transmit their data. The recorded data streams wirelessly straight into LabChart Software. The long battery life and comfortable design make it ideal for long sampling periods.

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).



