



A two day workshop on ESSENTIAL INSTRUMENTATION FOR HEALTH MONITORING



November 27 & 28, 2010 (Saturday and Sunday)
Venue: Indian Institute of Science, Bangalore – 560 012.

Instruments that are being used for health monitoring has become indispensable in the clinic, especially in emergency and intensive care units. Non-invasive biomedical instruments that can continuously monitor the physiological signals have become standard of health care and the recent advances in instrumentation have made them both reliable and precise. The aim of this workshop is impart the necessary technical and clinical skills to understand the essential instrumentation in these health monitoring devices. There will be a hands-on lab session that to provide much needed practical understanding of the instrumentation in the health monitoring. Lectures from clinicians will highlight the engineering effects involved in health monitoring. A clinical demonstration by eminent cardiologist will provide the clinical practice aspect of the health monitoring.

Main objectives of the workshop are:

- Develop necessary skills to understand essential instrumentation for health monitoring
- Develop the knowledge to understand the non-invasive physiological measurements and its interpretation
- Impart the necessary skills to understand the acquisition of physiological signals in real time reliably and precisely

Modules of the workshop

Teaching Modules

- ❖ Sensors and physiological signal analysis
- ❖ Electrocardiography (ECG)
- ❖ Impedance cardiography (ICG)



- ❖ Blood Oxygenation
- ❖ Breathing signal measurements
- ❖ Diagnostic Ultrasonography

Laboratory Modules

- ❖ ECG/ICG measurements
- ❖ Pulse Oximeter
- ❖ Blood pressure measurements
- ❖ Ultrasonography

Workshop Registration Fee (10% concession for ISOI life members)

Academia/Non-profit/Government Organizations : Rs. 5,000/-

Industry : Rs. 10,000/-

The payment (local check/DD) should be made in favor of “Instrument society of India”, payable at Bangalore.

Number of participants is restricted to 30, due to limited laboratory facilities.

Registration fee includes course materials, lunch and refreshments.

Applications can be downloaded from : www.isoi.in/eihm.html

Last date for receipt of applications along with the registration fee is **10 November 2010** (last date for cancellation with full refund is 15 November, 2010).

Organised by

INSTRUMENT SOCIETY OF INDIA
Department of Instrumentation
Indian Institute of Science
Bangalore - 560 012
Ph : 080-23604533 / 22932273
E-mail : isoi@isu.iisc.ernet.in
Website: www.isoi.in

Faculty

From I.I.Sc., Bangalore
Prof. J. Nagaraju, Ph.D.
Prof. Phaneendra K. Yalavarthy, Ph.D.
Prof. K. Rajan, Ph.D.
and
Cardiologist/Radiologist
(Medical Doctors)

Workshop Coordinator

Prof. J. Nagaraju, Ph.D.,
Department of Instrumentation
Indian Institute of Science
Bangalore 560 012
Ph : 080-22932273
E-mail: solarjnr@gmail.com