

Application Form

AICTE-QIP Sponsored
Short Term Course

on

**Bio Electric Signals & Medical Imaging:
Post Processing & Clinical Applications**

(26th Feb -08th March, 2019)

Name :.....

Designation:.....

Organization:.....

Department:.....

Address for Correspondence.....

.....

.....

E-mail:.....

Mobile.....

Accommodation: Required /Not required

Signature with Date:

SPONSORSHIP CERTIFICATE

It is certified that our Institute is recognized by AICTE. The applicant is hereby sponsored and will be permitted to attend the above STC, if selected.

Date:

Place.....

Signature and Seal of
the Sponsoring authority

(completed application form in all respects is to be sent by Email)

About The MITS

The Madhav Institute of Technology and Science, Gwalior was established by His Highness Late Sir Jiwaji Rao Scindia, Maharaja of Erstwhile state of Gwalior, with an aim to create world class quality engineers and Technocrats capable of providing leadership in all spheres of life and society.

Since the inception, the Institute has constantly strived for excellence and quality. Today the Institute enjoys a track record of extremely good results. Needless to say our commitment to further enrich the quality of education will be our constant feature and our commitment.

Location

The Institute is located on Agra - Bombay Road (NH - 3) & is approximately 320 km from Delhi. Gwalior Railway station is halt for most of south bound trains from Delhi. The Institute is located in the heart of city and is at a distance of about 3 km from Gwalior Bus Stand/ Gwalior Railway Station.

Vision of Department

To Educate and Prepare World Class Engineers for Global and Social Technological Demands

Mission of Department

- To strive for excellence in teaching and research and to promote academic growth by offering state-of-the-art undergraduate, postgraduate and doctoral programmes
- To generate new knowledge by engaging in cutting-edge research for overall development of students and society
- To identify areas of specialization based on an informed perception of regional, national and global needs
- To undertake collaborative projects which offer opportunities for long-term interaction with academia and industry

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**TWO-WEEK
SHORT TERM COURSE**

On

**Bio Electric Signals & Medical Imaging:
Post Processing & Clinical Applications**

(26th Feb -08th March, 2019)

Course Coordinators

Dr. A.K. Wadhvani

Dr. Sulochana Wadhvani

Organized By



**Department of Electrical Engineering
MADHAV INSTITUTE OF TECHNOLOGY &
SCIENCE GWALIOR, M.P. 474005**

(A GOVT. AIDED UGC AUTONOMOUS & NAAC ACCREDITED INSTITUTE,
ESTABLISHED IN 1957)

www.mitsgwalior.in

Course Outline:

Bioelectrical signals are very low amplitude and low frequency electrical signals that can be measured from biological beings, for example, humans.

The analysis of bioelectrical signals continues to receive wide attention in research as well as commercially because novel signal processing techniques have helped to uncover valuable information for improved diagnosis and therapy.

Biomedical signal and image processing techniques are becoming computational tools for clinical decision support. These tools have had a tremendous impact on healthcare and its economics. The success of these methodologies in clinical applications has often been attributed to an interdisciplinary nature that combines knowledge of biology/medicine with methods in computational sciences.

The fast growth of monitoring and imaging methods calls for more specialized biomedical signal and image processing algorithms to process the data collected by the existing and emerging patient monitoring and imaging systems.

The idea behind this course is to promote interactions among the researchers, technical professionals and developer to share & discuss the advances in the field of signal/ image processing techniques in the field of biomedical engineering.

The main aim of this course is to focus on the computation of signal/image parameters that are diagnostically significant. Also to introduce the recent trends in the biomedical engineering and to motivate them to apply these techniques in the relevant research areas.

Course Contents:

- Biomedical signal origin & dynamics (ECG, EEG, EMG etc.)
- Filtering techniques for Removal of artifact
- Methods for processing of bioelectrical signals & images
- Feature Extraction: Time & frequency Domain
- Heart Rate Variability Analysis
- Neural Networks & Fuzzy logic in Medicine
- Artificial Intelligence Techniques in Health Services
- Optimization for healthcare problems
- Physiological Control System
- Telemedicine etc

Laboratory demos will supplement the material presented in the lectures

Course Faculty:

The faculty for the short term course will be mostly from reputed education and research organizations. Also, faculty members of the institute are having a rich expertise in the area of signals processing, Artificial Intelligence & Optimization. Many research projects have been successfully completed/are in progress in these areas.

Registration:

Teachers of AICTE recognized Engineering Institutions are eligible to apply for the course. Accommodation will be arranged on request of outstation participants on 'first come first serve' basis. The number of participants is limited to 30 for the Programme. The interested candidates need to apply on the prescribed format by the due date at the following address through post or by email to coordinators.

Financial Assistance:

There will be no registration fee for the participants. Free boarding and lodging will be arranged in the Institute Hostels/ Hotels/ Guest house. Reimbursement towards TA/DA will be made to participants attending the course in full. TA is limited to III AC for to and fro railway fare via shortest route

Important Dates:

Last date for receipt of application
(on or before): 11.02.2019

Intimation of selection: 12.02.2019

Address for all Communication:

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Professor, EED
Course Coordinator
Department of Electrical Engineering,
MITS, Gwalior-474005

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Phone no.: 0751-2409211, 2409212
Mob: 09425308846, 09131363200

Note: Participants are requested to visit www.mitsgwalior.in for other important information.