Workshop Sponsored by QIP, TEQIP-III and CEP

MedImg

4th Annual Workshop on Medical Imaging Techniques, Post Processing and Clinical Applications

> 13th -15th April 2018 16th April, Outreach program for QIP/TEQIP-III participants

Organized by

Centre for Biomedical Engineering Indian Institute of Technology Delhi



Venues:

Sonipat Campus, IIT Delhi, Sonipat, Haryana &

IIT Delhi, Hauz Khas, New Delhi, India

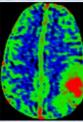
Program Objective:

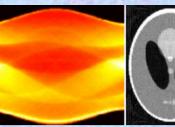
Scope of the course and workshop is to teach medical imaging, covering only CT and MRI in this three days course, from basic principles to clinical applications, including advanced imaging techniques and understanding of the limitations of these technologies. Experts will deliver talks on use of image processing software for medical image analysis with hands on experience to the participants.

Course Content:

- Principles, physics and instrumentation of medical imaging (CT and MRI) Basics of CT and MRI
- Clinical application and future research scope in medical imaging.
- Hands on workshop on medical image processing









Schedule:

<u>Day – 1 (13th April): Medical Imaging</u> Techniques

- Inauguration
- Current scenario of Medical imaging
- Introduction of medical imaging
- Overview of Human anatomy, Physiology
- Magnetic Resonance Imaging Part I
- Magnetic Resonance Imaging Part I I
- CT imaging
- Optical imaging
- Image Reconstruction

•Day – 2 (14th April): Post Processing

- •Machine Learning in Image Processing
- •Functional MRI (fMRI) Analysis
- •Basic Image Processing & Analysis
- Diffusion and Perfusion MRI
- •Multiparametric Imaging
- •Quantitative Medical imaging
- •Image processing: Hands on training using ImageJ / MATLAB, multiple sessions

<u>Day - 3 (15th April): Clinical Applications</u>, panel discussion and Site visit

- Clinical scenario of Medical imaging
- Neuroimaging
- Imaging in Oncology
- MR Imaging in Abdomen
- Clinical Applications of Dual Energy CT
- Panel Discussion
- Clinical Application in Knee Imaging
- New Horizon in Body Imaging
- MR Imaging Research scope
- Site Visit to MRI/CT facility
- •<u>Day –4: Outreach Program</u>
 Only for QIP and TEQIP-III participants

Eligibility: Participants interested in medical imaging.

QIP: Faculty from OIP circle affiliated institutions

TEQIP-III: Faculty from TEOIP-III circle affiliated institutions

CEP: Participants (Students, Faculty, Industry persons). Can also register, course fee will be applicable as mentioned below.

Registration: Registration date: 10/03/2018 to 30/03 2018

Registration form is available on website. http://medimg.iitd.ac.in

Registration for QIP & TEQIP-III participants will be sponsored by QIP and TEQIP-III funds, please check your eligibility at:

Registration Fee, only for CEP:

Rs. 6000 for students / faculty; Rs. 10000 for industry person

Accommodation is available in Campus, check with coordinator. For CEP participants additional charges might be applicable.

Teaching Faculty:

IIT Delhi Faculty:

- Dr. Amit Mehndiratta (CBME, IIT D)
- Dr. Anup Singh (CBME, IITD)
- Dr. Kedar B. Khare (Physics, IIT D)
- Dr. Rahul Garg (CSE, IITD);
- Dr. Panigrahi (EEE, IITD);
- Dr. Sumeet Agarwal (EEE, IITD)

Faculty From Other Institutions:

- Dr. N.R. Jagannathan (NMR, AIIMS)
- Dr. Rakesh Kumar Gupta (Fortis,
- FMRI, Gurgaon)
- Dr. Devasenathipathy K (Radio
- Diagnosis, AIIMS

Organizing Team:

Faculty Members--

Dr. Amit Mehndiratta, Assit. Professor Dr. Anup Singh, Assist. Professor

Student Members----

- Anirban Sengupta, Neha Singh
- Sandeep P Jogi, Sameer M
- Esha Baidya, Rafeek T
- Snekha Sehrawat,, Dinil Sasi
- Rupsa Bhattacharjee, Archana,
- -- Dharmesh Singh

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