

# Hong Kong Institution of Physicists in Medicine 香港醫學物理學院

# **Certificate Course on Introduction to Image Processing**

# **Course Content**

Introduction of digital image

- **▶** Digitization
- ➤ Color
- ➤ Storage
- ➤ Display device

# Basic digital image processing

- ➤ Intensity Transform
- ➤ Geometric Transform
- ➤ Visualization

# Image filtering

- ➤ Linear filter
- ➤ Non-linear filter
- ➤ Edge detection

# Image segmentation

- ➤ Pixel labeling
- ➤ Deformable models
- ➤ Atlas matching

# Image registration

- ➤ Mono-modal and multi-modal registration
- ➤ Rigid registration
- ➤ Deformable registration

# Digital image management

- ➤ DICOM and PACS
- ➤ Computer network
- ➤ Image compression
- ➤ Information security
- ➤ General Purpose GPU (GPGPU) Computing

# **Date, Time and Venue:**

#### The course will be held on:

Date	Time
06 Aug 2016	2:00 pm - 5:00 pm
13 Aug 2016	2:00 pm - 5:00 pm
20 Aug 2016	2:00 pm - 5:00 pm

#### **Duration of Course:**

9 hours lectures, Q&A and examination

#### Venue:

Lecture Room 7A, 7/F, Li Shu Pui Block, Hong Kong Sanatorium & Hospital, Happy Valley, Hong Kong

# Speaker

Ben YU, Ph.D., CertMedPhy, Dept In-charge,

Medical Physics & Research Department, Hong Kong Sanatorium & Hospital

Max LAW, Ph.D.,

Medical Physics & Research Department, Hong Kong Sanatorium & Hospital

Victor CHEUNG, MPhil

Medical Physics & Research Department, Hong Kong Sanatorium & Hospital

# **Target Participants:**

Physicists, doctors, radiographers and radiation therapists.

#### **Assessment:**

A written (MCQ) examination will be held at the end of the course.

#### **Accreditation:**

- 9 CPD credits by Hong Kong Institution of Physicists in Medicine
- 9 CPD credits by Radiographers Board
- $9\ CMD$  units approved by Medical Dosimetrist Certification Board (Course number: MDCB20160222)

#### **Course Award:**

A certificate of completion of the course "Introduction to Image Processing" will be issued to a participant who has passed the examination.

An attendance certificate will be issued to a participant who has failed the examination.

# **Teaching Medium**

The course will be conducted in English, and the written examination will be in

# English.

#### **Tuition Fee\*:**

HKD 360 (HKIPM member)

HKD 720 (member of HKART and HKRA)

HKD 2,490 (NON-HKIPM member)

\*A 50% discount will be given to trainees from the hospital that provide venue for training.

# **Enrollment:**

Completed registration form shall be sent with a cheque for the tuition fee to Ms. Ruby Ho, Secretary of the Hong Kong Institution of Physicist in Medicine at the address give below. The cheque should be crossed and made payable to "Hong Kong Institution of Physicists in Medicine". Full payment should be made at registration and no refund for withdrawal will be entertained due to any circumstances.

Ms. Ruby Ho Medical Physics & Research Department, 8/F, Li Shu Fan Block, Hong Kong Sanatorium & Hospital, Happy Valley, Hong Kong.

# **Closing Date for Application:**

Friday, 29 July 2016