The Chinese University of Hong Kong

Division of Biomedical Engineering

Biomedical Engineering Programme

Why here?

• World class leading comprehensive research university, with very high rankings internationally and in Asia Pacific region.
• Wide diversity of high quality research in BME fields.
• Faculty members with PhD degrees from the world’s top universities (e.g., Caltech, Cambridge, Columbia, Cornell, Imperial College, MIT, etc.).
• Faculty members serving on editorial boards of leading international journals and flagship conference organizing committees.

Research Areas:

The Biomedical Engineering Program of the Department of Electronic Engineering covers 6 areas with the following research topics:

- **Biomedical Signal Processing and Modelling**
  - Compressive Sensing of Biological Signals; Speech and Music Processing for Hearing Aids and Cochlear Implants; Multi-scale Modelling of Biological Systems; Risk Prediction Modelling for Mortality and Morbidity.

- **Medical Imaging and Image Processing**
  - Diffusion Tensor MRI; Computer Aided Diagnosis; Image Denoising and Restoration; Compressed Sensing MRI; Biomedical Applications of THz Imaging and Spectroscopy.

- **Medical Robotics and Assistive Technologies**
  - Medical and Surgical Robotics; Active Medical Devices and Wireless Capsule Endoscopy; Rehabilitation and Robotic Assistive Technologies.

- **Biomaterials and Functional Tissue Engineering**
  - Stem Cell Bioengineering; Tissue Engineering Scaffolds and Bioactive Coatings; Micro-Environmental Cues; Mineralization of Soft Tissues; Bionanotechnology and Drug Delivery.

- **Bio-MEMS and Bio-chips**
  - Optical and Electrical Interfacing between Cells and Chips; Microfluidic Manipulation and Detection of Biomolecules and Cells; Chip-based Disease Diagnostics; Medical Sterilization Validation Technology; Cell-based Biosensors for Astrobiology.

- **Biosensors and Medical Instrumentation**
  - Lab-on-a-chip Biosensors; Medical IC Design; Noninvasive Devices for the Early Detection of Diseases; Point-of-Care Devices; Home Healthcare Technologies; Wearable Systems and Mobile-Health.

Financial Assistance: around HK$ 14,000 per month

Application Deadline: normally 1 December of each year for HKPFS applicants and end of January for other applicants.

For PhD candidates who are deemed outstanding, exceptional early or late offers would be possible. Such candidates may also apply for the Hong Kong PhD Fellowship Scheme (HKPFS), which provides HK$20,000 stipends and travel allowance. Check [http://www.rgc.edu.hk/hkphd](http://www.rgc.edu.hk/hkphd) for more details.

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