The Department of Electronic Engineering (EE) was established in 1970 by Prof. Charles Kao, former Vice-Chancellor of the Chinese University of Hong Kong. Kao pioneered the use of optical fibres in communications. The Bachelor of Engineering (Honours) in Electronic Engineering Programme features a dynamic and adaptive curriculum that covers a wide range of topics, including integrated circuits and electronic devices, opto-electronics and optical communication, microprocessors and computer architecture, telecommunication and wireless systems, multimedia and signal processing, medical instruments and telemedicine, electronic materials, and nanotechnology. The courses offered are designed to convey both theoretical and practical knowledge and to provide balanced training in both hardware and software skills. The EE Department was ranked No. 1 in Hong Kong by QS World University Rankings by Subject 2016 and by Shanghai Ranking’s Global Ranking of Academic Subjects 2017.

The EE programme will directly admit its students through [1] Joint University Programme Admission System (JUPAS code: J54434) and [2] other admission channels (for applicants with other academic qualifications such as Associate Degree/Higher Diploma, IB, GCE, etc.) We look for applicants with innovation minds who are passionate about engineering, full of curiosity and have sufficient training in mathematics and science such as physics and chemistry. EE graduates pursue successful careers in a wide range of hi-tech industrial and business sectors including telecommunications, information technology, e-commerce, technology services, industrial manufacturing, and product design and development. Some of the graduates also choose to pursue postgraduate studies at local or overseas institutions. For more details, please visit the programme website at www.ee.cuhk.edu.hk.

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The Faculty of Engineering offers a wide choice of undergraduate engineering programmes. In this issue, we feature some of our programmes with development: Biomedical Engineering, Electronic Engineering, Energy and Environmental Engineering, and Financial Engineering.

After more than a decade of incubation, development and strategic planning, CUHK has judged that the time is now right to establish the Department of Biomedical Engineering (BME) on 1 July 2017 in the Faculty of Engineering in close collaboration with the Faculty of Medicine. The new Department will host all undergraduate and postgraduate programmes in the BME to champion their further coherent development and to scale new heights in this important area of education, research and professional services.

Prof. Raymond TONG, Chairman of the new Department, stressed that for BME to exert the significant impacts from bench to bedside, deep collaboration between engineers and clinicians is absolutely essential. He very much appreciates the collegial environment at CUHK and is confident the BME activities will continue to thrive not only in the engineering laboratories on the main campus, but also in those on our medical campus as well.

The core Faculty members of the new BME Department would like to thank all their colleagues, particularly those in EE and MAE, for their supports all these years in the development of the Biomedical Engineering programmes. They look forward to fruitful partnerships with all their sister departments to establish BME as one of the top educational and research programmes in CUHK.

Students in the BEng Programme in BME are provided with solid underpinnings in science and mathematics, along with a strong engineering foundation in biomechanics, biomaterials, and biomedical circuits and signals. Students may choose to concentrate upon one of three streams, namely (a) medical instrumentation and biosensors, (b) biomedical imaging and informatics, and (c) biomolecular, cell and tissue engineering. Depending on their respective interests, students will have ample opportunity to apply advanced engineering technology to areas such as surgical and rehabilitation robotics, wearable biosensors, lab-on-a-chip, organ-on-a-chip, image-based computer-assisted diagnostics, nanomedicine, and regenerative medicine.

Many BME students opt for industrial internships and research internships, both local and overseas, as well as many other types of co-curricular and extra-curricular experiential learning. For example, in recent years BME students have been hosted as summer interns at the University of California at Irvine, Columbia University in New York City, Imperial College in London, the Korea Institute of Science & Technology in Seoul, Northwestern University in Chicago, and the University of Pittsburgh. BME students have also participated and won many awards in regional and international competitions such as iGEM, EMERID Global, Challenge Cup and others.

Starting in 2018, the BEng programme in Biomedical Engineering will admit its students directly from among applicants with HKDSE (JUPAS code: J54440) or other recognized academic qualifications such as Mainland-JEE, IB, GCE-AL, and International-AL. This direct programme admission will allow BME to recruit students with a broader underpinning in science and mathematics. For HKDSE, higher weighting will be assigned to science subjects such as biology, chemistry, physics, and combined science, as well as to mathematics or its extended modules.

For more details, please visit www.bme.cuhk.edu.hk.