

## **Master of Science (MSc) Program in Telecommunications**

### **Program Director:**

Danny H. K. TSANG, Professor of Electronic and Computer Engineering

Due to the rapid introduction and proliferation of telecommunication technologies such as wireless Local Area Network (WLAN), 3G systems, broadband multimedia communication, etc, there is a need for the telecommunication practitioners, technologists and managers to update themselves. The objective of this program is to provide students with a comprehensive and up-to-date knowledge on the latest topics in telecommunications.

The Master of Science (MSc) program in Telecommunications is designed for people with a bachelor's degree in Science or Engineering who are interested in acquiring in-depth knowledge in telecommunications.

### ***Program Learning Outcomes***

On successful completion of the program, graduates will be able to:

- Analyze and evaluate telecommunications problems;
- Combine theoretical principles and practical implementations to solve telecommunications problems;
- Communicate in their fields of study through writing and discussions with other professionals; and
- Interpret scientific literature and contemporary innovations in telecommunications.

### ***Admission Requirements***

Applicants must possess a bachelor's degree in Electronic Engineering / Engineering / Physical Sciences, or an equivalent qualification from a recognized university or tertiary institution.

### ***Program Duration***

The program can normally be completed in one year in full-time mode, or two years in part-time mode. All lectures will be delivered at HKUST, or suitable venues in Hong Kong and/or Mainland China. Classes will be held on weekday evenings and/or weekends.

### ***Program Fee***

The program fee is HK\$125,000 for full-time mode, and HK\$120,000 for part-time mode. New students admitted with credit transfer are also required to pay the full program fee. Students who take additional courses or need to retake any courses are required to pay additional fee.

### **Curriculum**

The program comprises a total of 30 credits of coursework. Students are required to take 24 credits from the following course list, and complete 6 credits of MSc Project:

EESM 5515	IP Networks
EESM 5536	Digital Communications
EESM 5539	Wireless Communication Networks
EESM 5540	Introduction to Telecommunication Networks
EESM 5546	Wireless Communication Systems
EESM 5547	Multimedia Signal Processing
EESM 5550	Online Social Networks
EESM 5810	Business Development for Technological Innovations
EESM 5900*	Special Topics
EESM 5910	Topics in Telecommunications and Network Convergence
EESM 6980#	MSc Project

Alternatively, subject to prior approval of the Program Director, students may take a maximum of 9 credits from outside this list offered by other programs. These 9 credits may include:

- EESM courses not in the above list, and
- A maximum of 3 credits of non-EESM courses.

The availability of courses offered by other programs may be subject to quota limitations imposed by individual programs.

Part-time students may take a maximum of 9 credits in each term.

### **Credit Transfer**

Credit transfer may be granted to students in recognition of studies completed successfully elsewhere. Upon the approval of the Program Director, a maximum of 9 credits can be transferred to the program, subject to University regulations governing credit transfer for postgraduate programs.

### **Graduation Requirements**

Students in the program must complete the program with a graduation grade average (GGA) of 2.850 or above as required of all postgraduate students at the University. Students failing to meet the GGA requirement are required to repeat or take additional course(s) even if they attain passing grades for all courses.

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\* Students may take EESM 5900 for a maximum of 6 credits.

# Each MSc Project carries 1-3 credit(s). Students are required to repeat this course to obtain 6 credits for graduation.