

Master of Science (MSc) Program in Intelligent Building Technology and Management

Program Director:

Huihe QIU, Professor of Mechanical and Aerospace Engineering

Ever since the first appearance of the term 'Intelligent Buildings' in the US in the early 1980s, it has grown into a major area of study for design and management professionals involved in major modern urban building projects. The start of the twenty-first century is witnessing rapid developments in intelligent building design technology and management. Building services engineers have to deal with complex multi-disciplinary building projects that involve the provision of effective and efficient solutions to an ever-evolving urban built environment. The launching of a quality and up-to-date postgraduate program such as this Master of Science (MSc) program in Intelligent Building Technology and Management helps to enhance the knowledge and competencies of professionals who are engaged in intelligent building projects in modern metropolises such as Hong Kong and major cities in Mainland China. The program aims to contribute toward the sustainability of today's urban built environment.

This MSc program is designed for professionals in the building services industry. They can be mechanical engineers, electrical engineers, building services engineers, civil engineers, architects and other building operation professionals who wish to pursue comprehensive studies in intelligent building design, operation and facilities management.

Program Learning Outcomes

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

- Apply a holistic interdisciplinary approach in Intelligent Building Technology and Management;
- Creatively and innovatively design and develop useful technologies and/or services for society based on mathematical and scientific principles;
- Handle the rapid change in building industries;
- Analyze, design and find solutions for building services problems; and
- Effectively communicate analysis and design ideas to peers, clients and customers.

Admission Requirements

Applicants must possess a bachelor's degree in Mechanical Engineering / Civil Engineering / Electrical Engineering / Building Services Engineering / Architectural Science / Physical Science or a related field, with second class honors or above.

Program Duration

The program can normally be completed in one year in full-time mode, or two years in part-time mode.

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

Students are required to complete at least 30 credits of IBTM courses, including 6 credits of core courses.

Core courses (6 credits)

IBTM	5010	Intelligent Building Facility Management
IBTM	5050	Intelligent Building System

Subject to the approval of the Program Director, students may take the following as partial fulfillment of the graduation requirements of the program:

- a) A maximum of 9 credits of non-IBTM courses, which may include:
 - a maximum of 6 credits of CIEM courses from the MSc program in Civil Infrastructural Engineering and Management offered by the Department of Civil and Environmental Engineering to replace two 3-credit IBTM elective courses; and
 - a maximum of 6 credits of MECH or MESF courses offered by the Department of Mechanical and Aerospace Engineering to replace two 3-credit IBTM elective courses.
- b) A maximum of 6 credits of IBTM 6010 Special Topics in Intelligent Building Systems;
- c) A maximum of 6 credits of IBTM 6950 Independent Studies which may be taken once only.

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, except for the core courses. Upon the approval of the Program Director, a maximum of 6 credits can be transferred to the program, subject to University regulations governing credit transfer for postgraduate programs.

Graduation Requirements

Students 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.