

# Welcome to our **MSc Courses** in Telecommunications Systems, Wireless Communications and Networking

硕士专业: 通信系统;无线通信及网络.

## Outline(专业简介)

The above programmes are designed to address the rapidly increasing demand for qualified engineers and managers with up to date knowledge of communication (wired and wireless) systems and networks. This one-year programme offers six-months of taught modules covering a wide range of subjects from fundamental information and communications technology (ICT) to contemporary developments in the telecommunications, mobile and data network industry. It also includes a six-month individual research project with opportunities of participating in a project provided by industry. These programmes are suitable for those who want to develop the knowledge and skills needed for a successful career in these specific and related areas. The delivery of the programme is fully supported by the dedicated facilities in the Electronic Engineering Department and across the University, such as teaching and computing laboratories, and the involvement of experienced member of staff. Our research facilities in the Adaptive Communications and Networks Research Group and Wireless Network Laboratory are also available for use on MSc projects. To ensure their continuing relevance the programmes are monitored by the Postgraduate Industrial Steering Committee which includes representatives from major employers.

以上专业旨在培养具备精良通信系统与网络(有线及无线)知识的优秀工程师和管理人员。一年期 的硕士专业学习包括 6个月的课堂教学,课程涵盖信息与通信技术 (ICT)基本原理和无线与移动通信行 业当代前沿发展,还包括另外 6个月的个性化培养课题研究项目,而且有机会参与工业界提供的具体 项目。这些专业适合那些想要在通信相关领域取得成功职业生涯的同学。本专业受到阿斯顿大学电子 工程系教学科研设施全力支持,包括专用实验室,经验丰富的教职员,以及通信与网络研究组为课程 学习和项目开展提供的保障。此外,我们组成了包括世界主要大公司雇主代表在内的行业顾问委员会, 以确保本专业可持续性发展。

## Module Structures (课程设置)

Different combinations of the following modules are offered for our programmes. (以上

两门专业的课程由下面不同的单科组合配置)

Information Theory and Coding, and Traffic Theory

- Internetworking
- Radio Systems and Personal Communications Networks
- Broadband Wireless Networks
- Pervasive and Mobile Communication Networks
- Mobile Data Networks
- Digital Transmission
- Optical Communications
- Realtime Communication Networks
- Distributed Internet Applications
- □ Telecommunications Perspective
- □ Software Engineering
- Introductory Programming
- Project Preparation
- □ MSc Project

#### Detailed programme information can be found via:

 <u>http://www1.aston.ac.uk/eas/postgraduate/programmes/msc-telecommunication</u> <u>stechnology/</u> for MSc Telecommunications Systems
<u>http://www1.aston.ac.uk/eas/postgraduate/programmes/msc-in-wireless-</u> <u>communications-and-networking/</u> for MSc Wireless Communications and Networking

### Career opportunities (就业方向)

After completing the course students will have developed essential technical understanding, engineering "know-how" and professional skills required for system design, implementation and evaluation in wireless communication and general telecommunications sectors. Potential employers include wireless communication equipment, infrastructure and service providers, mobile network operators, mobile phone manufactures, and telecommunications regulators. A Masters degree in this area may also act as a pre-requisite to going into a research career, especially considering the future demand for skills due to emerging technologies and industries such as for communications, computing, data storage, information and signal processing.

## Key benefits (特点及优势)

- Prepares students for an intellectually challenging career as a qualified engineer.
- An industrial advisory group (Steering Committee) reviews the programme on a continual basis.
- Guest lectures presented by acknowledged experts from industry and academic institutions.

An active alumni group on LinkedIn.

Free student membership of the IET.

Opportunities to participate in industrial projects.

- Funded Ph.D. studentship opportunities for top students after completion of MSc.
- Aston University and the School of Engineering & Applied Science Scholarships for outstanding applicants.

#### Contact us (阿斯顿大学联系方式):

For application related issues: MSc Programmes Admissions Officer Tel: +44 (0)121 204 3668 Fax: +44 (0)121 204 3676 E-mail: <a href="mailto:seaspgtaught@aston.ac.uk">seaspgtaught@aston.ac.uk</a>

For programme related issues: Dr Xiaohong Peng: <u>x-h.peng@aston.ac.uk</u>