



# Welcome to our MSc Programmes

- 1. Telecommunications Systems
- 2. Wireless Communications and Networking

硕士专业: 1. 通信系统; 2. 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 sixmonth 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 modern teaching and computing laboratories, and the involvement of experienced member of staff. Our research facilities in the first-class Photonic Research Institute and 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. Many of our graduates have joined the world well-known telecom companies or carried on with PhD studies after completing the course.

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,以及一流的光学和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。我们的许多毕业生受雇于世界著名通信公司或继续读博深造。

#### Contact us (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: seaspgtaught@aston.ac.uk

For programme related issues:

Dr Xiaohong Peng: x-h.peng@aston.ac.uk

# Key information (主要信息)

Duration of programme (学制): **Full-time**: 12 months (six months taught modules and a six-month individual research project). 全日制:12个月(6个月课程学习和6个月的个人研究项目)。

Start date (开学日期): End of September 2017.

Fees (学费): Standard international student fees: £15,650.

How to apply (申请链结): Follow the information via www.aston.ac.uk/eas/postgraduate/apply

#### Entry requirements (入学要求):

- Candidates entering Aston should have obtained a good final grade in their undergraduate degree (in science or engineering) of a 70%-80% average across all subjects, which is considered equivalent to the 2.2 degree classification required of UK candidates. 申请人应获得优良的理工科本科学位成绩 (一般要求总平均 70-80 分及以上), 相当于英国大学的 "二等" 学位等级.
- English Language requirements: IELTS: no less than 6.0 overall (with minimum 5.5 in each section) or TOEFL: 93 or more. If applicants only have 5.5 in the IELTS overall score, they will have to attend the pre-sessional language courses as a condition in their admission offer. 英语要求:雅思总分需达到 6.0 (每个单项不低于 5.5)或托福成绩达到 93。雅思不够 6.0 分的申请者如果学位成绩达到要求也可得到有条件的录取。如雅思只有 5.5 须在开学之前参加语言培训课程。

# Programme Structures (课程设置)

- MSc Telecommunications Systems covering general telecommunications aspects: wired, wireless and optical communications. 通信系统硕士课程 - 覆盖通用通信领域,包括有线,无 线以及光通信。
- MSc Wireless Communications and Networking focusing on modern wireless and mobile systems and networks, e.g. 4G/5G, Internet of Things, and wireless broadband networks. 无线通信及网络硕士课程 着重于现代无线及移动系统和网络,比如第 4 代和第 5 代移动系统,物联网,以及无线宽带网络等。

Different combinations of the following modules are offered in our programmes: 以上两门专业的课程由下面不同的单科组合配置:

- Telecommunications Networks and Quality of Service 电信网络及服务质量
- Radio Systems and Personal Communications Networks 无线电系统和个人通信网络
- Information Theory and Coding, and Traffic Theory 信息,编码以及交通理论
- Broadband Wireless Networks 宽带无线网络
- Pervasive and Mobile Communication Networks 普适和移动通信网络
- Mobile Data Networks 移动数据网络
- Digital Transmission 数字传输
- Optical Communications 光通信
- Software Engineering 软件工程
- Project Management 项目管理
- Dissertation Preparation 论文预备
- MSc Dissertation 硕士论文

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

- <a href="http://www.aston.ac.uk/study/postgraduate/taught-programmes/school/engineering-applied-science/msc-telecommunications-systems/">http://www.aston.ac.uk/study/postgraduate/taught-programmes/school/engineering-applied-science/msc-telecommunications-systems/</a> for MSc Telecommunications Systems
- http://www.aston.ac.uk/study/postgraduate/taught-programmes/school/engineering-appliedscience/msc-in-wireless-communications-and-networking/ for MSc Wireless Communications and Networking

# Key features and benefits (课程主要特点及优势)

#### Strong links with industry: 与工业界密切合作

- Our programmes are supported and guided by a Postgraduate Industrial Steering
  Committee current members from British Telecom (BT), Jaguar Land Rover, General
  Electric (GE), Oclaro, Huawei, Fujitsu, Alchemy Wireless, Daconi. 有工业指导委员会定期
  审查我们的课程计划。委员会成员来自英国电信,捷豹路虎,通用电气,华为,富士通等。
- Placement opportunities to participate in industrial projects, which have been provided by leading companies such as BT, Ericsson, Orange, BlackBerry, Virgin Media, BAE Systems, Oclaro, Emerging Markets Communications, as well as SMEs such as Skilliantech, Greenwich Consulting, Daconi, IT Global, Q-Red. 参与由工业界提供的项目。我们的项目得到了许多知名企业公司支持。
- Regular guest lectures presented by acknowledged experts from industry and academic institutions such as BT, Jack Land Rover, BAE Systems, Fujitsu, Huawei, BlackBerry, etc. 工业界和学术机构的专家为本课程提供系列客座讲座,如来自英国电信,捷豹路虎,BAE系统,富士通,华为,黑莓等。

#### Enhancing employability: 提高就业能力

- Students who graduated from our programmes will have developed essential technical and professional skills required for system design, implementation and evaluation. They were particularly welcome by telecommunications industry, mobile network operators and telecommunications regulators. They were normally offered jobs soon after their graduation, among them 8 students were employed by the companies that provided industrial projects to our MSc programmes. 我们的毕业生具有系统设计,实施和评估所需的专业技能,特别受到通信工业,移动网络运营商以及电信监管机构等雇主的亲妹。我们有8位学生做了工业界项目而后直接受雇于项目公司。
- A Master's degree in this area may also act as a pre-requisite to going into a research career. 该领域的硕士学位也可以作为进入博士研究生学习的先决条件。我们有 8 位学生毕业后在阿斯顿攻读博士学位。

Free student membership of the IET. 免费英国工程技术协会学生会籍。

Aston University Scholarships for outstanding applicants. 阿斯顿大学为优秀申请人提供奖学金。

# About Aston University (大学简介)

Aston is a long established research-led University known for its world-class teaching quality and strong links to industry, government and commerce. The University is currently ranked 29<sup>th</sup> in the University Guide by The Guardian and 2<sup>nd</sup> for Teaching Quality among 150 universities in the UK. In the QS Graduate Employability Rankings 2016, Aston is ranked in the top 80 in the world and 12<sup>th</sup> in the UK. Our School of Engineering & Applied Science has a long tradition of quality teaching and a reputation for cutting-edge research. Our programmes are focused on sustainable energy, global communications, understanding of complex data through mathematics and computer science, and novel materials for healthcare. Electronic and Electrical Engineering at Aston is ranked the 18<sup>th</sup> by Guardian University Guide 2016.

阿斯顿是一个长期以研究为主导的大学,以其世界级的教学质量和与工业,政府和商业的紧密联系而闻名。 大学目前在英国 150 所大学中综合排名第 29 位 (摘自英国卫报大学指南), 教学质量排第 2 位。同时在QS毕业生就业排名榜上阿斯顿位于世界第 80 名,英国第 12 名。阿斯顿工程与应用科学学院拥有优良教学以及尖端科研的声誉和悠久传统,它是新的和令人兴奋的发展的前沿对于社会当前和未来的需要。我们的课程注重于如可持续能源,全球通信,运用数学和计算机科学的复杂数据分析,以及用于医疗保健的新材料。我们的电子和电气工程在 2016 年卫报大学指南上专业排名第 18。

Aston University is based in the centre of Birmingham, one of Europe's liveliest and most welcoming cities. As a postgraduate student at Aston University you will be part of a multicultural, international campus community where you can benefit from high quality teaching, work with researchers who are making a real impact on society and develop a truly global perspective. Our secure, self-contained campus provides instant access to academic resources, study space, the Library, sports facilities and places to relax and socialise. Student accommodation on campus provides 2,300 new rooms built to the highest standard.

阿斯顿大学位于伯明翰的中心,是欧洲最热门和最热门的城市之一。 作为阿斯顿大学的研究生,您将成为多元文化,国际校园社区的一部分。您可以从高质量的教学中受益,与具有全球视野的研究人员合作。 我们的安全且独立的校园提供实时学术资源,学习空间,图书馆,体育设施和放松和社交的地方。 校园内的学生宿舍提供高标准的 2,300 个新房间以保证海外学生需要。





