

# WMG in China

### Who are we?

### **WMG**

We are one of the largest academic departments at the University of Warwick. What makes us unique is our multidisciplinary approach to innovation and education: pushing the boundaries for science and technologydriven businesses, we enable the transfer of knowledge into new areas.

UK government reviews have cited us as an international role model for university and business collaboration. We work across diverse projects and industry sectors, having forged strong relationships with over 1,000 companies around the world.

Comprising of professors, researchers, engineers, business specialists, educators, and support staff, we connect industry with academia. Working together to solve both business and technical challenges, we make a real impact on industry, companies, and organisations, through collaborative R&D and world class education.

Our education programmes are delivered in the UK and overseas. By sharing our expertise and experience, we challenge traditional ways of thinking, developing well-rounded individuals who can progress to the highest level. To date, over 33,000 students and professionals have studied with us from more than 60 countries.

Over 350 staff, plus more than 250 associates, are based in our seven buildings on the University of Warwick campus. In addition to these research and teaching facilities, we are partners with Jaguar Land Rover and Tata Motors in the National Automotive Innovation Centre; the largest research centre of its kind in Europe. The centre is due to open at the University in 2017.

"Academic excellence with industrial relevance has always been at the heart of what we do...it's what makes us unique."

Professor Lord Kumar Bhattacharyya, Kt, CBE, FREng, FRS Chairman and Founder

### The University of Warwick

With a reputation for excellence in research and teaching, for innovation, and for links with business and industry, Warwick is one of the UK's leading universities.

We consistently place in the Top 10 Universities in the UK, and rank within the Top 50 in the world. We were also proud to be named The Times and Sunday Times University of the Year in 2014-2015.

## What is our relationship with China?

Our Chairman and Founder, Professor Lord Bhattacharyya, has maintained a close personal relationship with China for over 35 years. In 2015 he was awarded the inaugural National Rainbow Bridge Award in recognition of his role in promoting the friendly cooperation between Chinese people and people from other countries.

His relationships with China have enabled us to develop a strong history of research collaboration and education programmes with, and for, the leaders of Chinese industry and government.

Through his regular visits to China, delivering keynote lectures and developing strategic partnerships, Professor Lord Bhattacharyya has had many discussions with state and city leaders including Vice Premier Madam Liu Yandong; Vice Premier Ma Kai; President of the China-EU Association, Mr Chen Haosu; Minister of Education, Mr Yan Guiren; and Vice Mayor of Beijing, Mr Gou Zhongwen. These have enabled us to fully understand the needs of Chinese industry and the evolving landscape in China.

Working with organisations such as the State Administration of Foreign Experts Affairs (SAFEA), we have delivered education programmes to managers from most of the major industries and institutions across China. This includes companies in the automotive industry, aviation, aerospace, banking, construction, defence, oil and gas, and transport, in addition to the provincial governments.

Our award-winning Integrated Graduate Development Scheme, launched in Hong Kong in 1990, was the first time that an education programme had been offered in full We continue to offer postgraduate qualifications through Hong Kong Polytechnic University and the Hong Kong Vocational Training Council, and have expanded across mainland China, including Beijing City University, training over 2,000 professionals from over 650 companies, ranging from intensive training to Master's degrees.

"Professor Lord Bhattacharyya trained a large number of excellent talents for Chinese industries in the automobile, aviation, aerospace, transportation and national defence sectors, and has made outstanding contributions to the development for the cause of Sino-British friendship."

Mr Xu Bingjin, President of the China-Europe Association for Technical and Economic Cooperation



### Made in China 2025

China's State Council unveiled its new national plan in 2015, with a strong focus on manufacturing. 'Made in China 2025' is the first of a series of action plans designed to transform China from a manufacturing giant into a manufacturing world power by 2049, the anniversary of the founding of the People's Republic of China.

### What role can we play?

Our strengths and expertise align closely with the main priorities of the State Council's plan and we are keen to work with Chinese partners to:

- ▶ Improve manufacturing innovation
- ▶ Integrate information technology and industry
- ► Strengthen the industrial base
- ► Foster Chinese brands
- ▶ Improve green/sustainable manufacturing
- ▶ Promote breakthroughs in key sectors
- ► Advance the restructuring of the manufacturing sector
- Promote service-oriented manufacturing and related service industries
- ▶ Internationalise Chinese manufacturing

We have consistently been able to make an impact across a wide variety of manufacturing sectors around the world, which demonstrates not only our credibility, but our suitability to be a part of the Made in China 2025 plan.

We are also able to provide intensive training to improve competitiveness and develop next generation business strategies. We can assist companies and other organisations in improving skills and innovation, particularly in the areas of:

- Brand strategy
- ► Sales and service systems
- ▶ International trade and acquisition
- ▶ IPR protection
- ► Entrepreneurship



### Education programmes for China

A key strength of our education programmes is the fact that they are centred on industrial and business relevance, and underpinned by our leading research expertise.

### SAFEA programmes

We enjoy a close working relationship with the Chinese government body responsible for all overseas training; the State Administration of Foreign Experts Affairs (SAFEA). Some 1,500 senior managers have now benefited from the SAFEA courses and those that have developed from them.

These courses have been of benefit to a wide range of organisations including the China Development Bank, China National Petroleum Corporation, Great Wall Asset Management Corporation, SINOPEC, China North Industries Corporation, Sinotrans, Dong Feng Corporation and BAIC.

### Intensive training

We design and deliver intensive short programmes for the senior managers of major organisations in China, and have being doing so successfully for over 10 years. These include the China Aviation Industry Corporation (AVIC), China Aerospace Talent Development and Exchange Centre (CA-TDEC), China Development Bank, and SAIC.

We also work with major institutions such as the Beijing Academy of Science and Technology (BJAST), Beijing Vocational College of Labour and Social Security (BVC), Liaoning University, Zhejiang Supply Chain Association, and Zhejiang Province Economic Information Commission (ZPEIC).

These intensive courses are tailored for each organisation, and comply with Chinese Government regulations for overseas training. A typical course would consist of an intensive three-week period of taught modules relevant to the business, plus industrial visits to world class organisations with whom we have strong partnerships.

We can incorporate subjects such as:

- ► Project management
- ► Creativity and innovation
- ► Management of teams, and performance improvement
- Marketing
- ▶ Finance
- ► Manufacturing awareness
- ► Operations management
- ▶ Management of change
- ► Cultural issues in business
- ▶ Leadership
- ► Supply chain management
- ► Collaboration and partnerships

All of these modules would be tailored to individual company needs. Technically oriented modules are also available.

### Postgraduate qualifications

Approved by the Chinese Ministry for Education, the following programmes are delivered in China by visiting WMG tutors from the UK.

#### **Beijing City University**

 MSc or Postgraduate Award in Programme and Project Management

### Hong Kong Polytechnic University

- MSc in Engineering Business Management
- ► MSc in Manufacturing Systems Engineering
- ► Postgraduate Award in e-Business Management
- ► Postgraduate Award in Supply Chain and Logistics Management

#### **Hong Kong Vocational Training Council**

- MSc or Postgraduate Award in Programme and Project Management
- MSc or Postgraduate Award in International Technology Management

### Master's education in the UK

Chinese students play a major part in the international community on our full-time MSc courses at the University of Warwick. Over 300 young people from China study with us each year, mixing with over 700 students from 60 countries.

Our Master's courses are designed to develop skills in management and leadership, especially for those with a technical background, or who want to work in technologyled industries. Our Chinese students tell us that they appreciate that we can give them both a theoretical and applied understanding of how successful enterprises and business leaders operate. They also appreciate the innovative teaching methods that keep them engaged practically in their studies.

What is arguably most valuable to our students is the fact that our tutors and professors have extensive industry experience. They are able to bring their subjects to life by blending their academic knowledge with their experiences in a variety of industries, supporting students in applying what they learn into real world scenarios and preparing them for their future careers.

One year full-time courses include:

- ► MSc Management for Business Excellence
- ► MSc Programme and Project Management
- ► MSc Innovation and Entrepreneurship
- ► MSc Service Management and Design
- ► MSc International Trade, Strategy and Operations
- ► MSc Supply Chain and Logistics Management
- ► MSc Healthcare Operational Management
- ► MSc Cyber Security Management
- ► MSc Cyber Security and Engineering
- ► MSc e-Business Management
- ► MSc International Technology Management
- ► MSc Engineering Business Management
- ► MSc Manufacturing Systems Engineering
- ► MSc Sustainable Automotive Engineering



### Research and development

We deliver high quality, interdisciplinary research to achieve global impact in the fields of low carbon mobility, clean energy, sustainability, healthcare, advanced materials, innovative manufacturing, and new business models, while developing the academic and industrial leaders of the future.

Our success is underpinned by a culture of research excellence, driven by our internationally leading academics and supported by our state of the art facilities and infrastructure.

The UK Research Excellence Framework (REF) 2014 confirmed the University of Warwick's position as one of the UK's leading research universities, ranking 7th overall of the UK multi-faculty institutions. 90% of WMG's research was internationally excellent or world leading, with our overall quality profile (Grade Point Average) at 3.22 (out of 4.0).

Our expert research groups are collaborating with partners to find solutions to challenges across themes of design, materials, manufacturing, systems, and business transformation, including:

- ▶ Advanced materials, from sustainable to lightweighting
- ► Advanced propulsion
- ► Energy storage and management
- ► Automation systems
- ▶ Biomedical informatics and healthcare technologies
- ► Smart and connected vehicles
- Cyber security
- ► Digital lifecycle management
- ► Nanocomposites
- ► Metrology and visualisation
- ► Steels processing
- ► Supply chains and industry 4.0

We have developed new tools, techniques, and processes that have been adopted by global companies such as Airbus, Arup, BAE Systems, Jaguar Land Rover, Johnson Matthey, Tata Motors and TVS.

Each year we welcome Visiting Fellows from top universities across China. In 2015, we had 11 Chinese academics working with us on research projects in digital lifecycle management, metrology and visualisation, steels processing, and business transformation.

A recent UK-China Symposium on Polymer Nanocomposites, hosted by our International Institute for Nanocomposites Manufacturing, brought together experts from universities across the UK and China for shared discussion on the latest developments in the field.

WMG's Professor Sridhar Seetharaman, Royal Academy of Engineering/Tata Steel Research Chair in Low Carbon Materials Technologies, has been awarded a 'Top Overseas Professorship' by the Ministry of Education of China, and SAFEA, to undertake research with the University of Science and Technology Beijing (USTB). USTB's Professor Zhang Lifeng has been awarded a UK Royal Academy of Engineering 'Distinguished Visiting Fellowship' to WMG.

Our strong relationship with USTB has led to a major UK-China research partnership for energy and materials recovery in steel making. Working with Shougang Group and Tata Steel, this project is creating a novel integrated process that exploits the value contained in waste streams. Sponsorship has come from MoST in China, and Innovate UK and the Engineering and Physical Sciences Research Council (EPSRC) in the UK.



Excellent transport and road links

- ▶ 1 hour to London by train
- ▶ Nearest airport Birmingham International 20 minutes
- ▶ Nearest train station Coventry 10 minutes

#### Getting in touch

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