



## CREATING OUR COMMON FUTURE

With a prestigious history and an extensive supporting network, **THE SCHOOL OF MATERIALS SCIENCE AND ENGINEERING AT SOUTHEAST UNIVERSITY (SMSE)** has played a leading role in materials research and development to accelerate technological breakthroughs.

**Innovative materials** are essential for supporting socio-economic development at all levels. As one of the 11 national double first-class disciplines at Southeast University (SEU), materials science and engineering has fuelled the success of basic and applied research evidenced by its substantial contributions to major national projects. From the Shenzhou spaceship to construction of the Three Gorges Dam, the SMSE has demonstrated strengths in

scientific research, teaching, discipline development, technical commercialisation and international collaboration.

**Developing multidisciplinary research** Materials sciences and engineering has a long tradition at SEU, which inaugurated programmes in engineering materials, metalcasting, and metalsmith, as early as 1928, when the institution was still called the National Central University. It has one

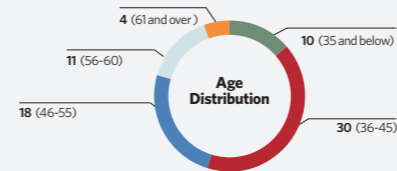
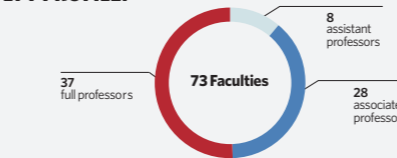
of the nation's first doctoral programmes in metalcasting and the first master's programme in inorganic non-metallic materials. These programmes were integrated to form the SMSE in 2006. In 2017, the SMSE was selected into the national 'double first-class' initiative for building world-leading research and teaching programmes.

Grounded in traditional strengths, SMSE's four research areas cover metallic materials, civil engineering materials,

advanced material processing, and functional materials. The department of metallic research has not only achieved great success in stainless steel and ultra-light structural materials (such as aluminium foam) for a variety of vehicles including cars, high-speed trains, aircrafts and spacecraft, but also developed novel high-performance, corrosion-resistant magnesium alloys for biomedical applications. The department of civil engineering, led by the

### QUICK FACTS

#### FACULTY PROFILE:



- 1 Academician of the Chinese Academy of Engineering
- 4 Distinguished Professors (3 national and 1 foreign)
- 1 Chang Jiang Scholar Distinguished Professor
- 3 Distinguished Young Scholars (National Science Foundation of China)
- 3 National Overseas Young Scholars

#### RESEARCH OUTPUT:

- 43 national, ministerial and provincial awards between 2006 and 2018,
  - 8 National Science and Technology Progress Awards
  - 8 first prizes for provincial and ministerial science and technology awards
- Annual research funding of 35 million RMB (roughly US\$4.9 million) for the past five years
- 160 publications and 71 patents annually

#### PLATFORMS AND FACILITIES:

- Provincial Key Laboratory of Advanced Metallic Materials
- Provincial Key Laboratory of Civil Engineering Materials
- Provincial Collaborative Innovation Center of Advanced Civil Engineering Materials
- Provincial Experimental Teaching Demonstration Center of Material Science and Engineering
- SEU Analysis Testing Center
- SEU Innovation Center for Advanced Materials (ICAM)

late professor Wei Sun, and Changwen Miao, both academicians at the Chinese Academy of Engineering, focus on developing rigorous, environment-friendly concrete materials and microbiological concrete. For the department of advanced materials and processing, recent research interests focus on specialised methodologies to achieve material solidification, microstructure simulation, metastable materials, and additive manufacturing (such as 3D printing). For the department of emerging

functional materials, research effort covers low-dimensional nanomaterials, inorganic and organic composites, among others, applied in fields ranging from electronics, information technology, to energy production and storage. More recently, SEU's interdisciplinary research capabilities in electronics, information technology, biomedicine, energy and environment, physics, chemistry, and mechanics have been geared towards socioeconomic needs of the region and the nation.

### SEEKING TALENT

Open-rank faculty positions, including Full, Associate and Assistant Professors and Lecturers, are available at **THE SCHOOL OF MATERIALS SCIENCE AND ENGINEERING OF THE SEU.**

#### PREFERRED QUALIFICATIONS:

- A PhD in materials science and engineering or a closely related field
- 2-plus years of postdoctoral research or industrial R&D experience
- Excellent English communication skills
- Research and teaching experience in, but not limited to, the following areas:
  - Novel metallic materials (biomedical, energy and other applications)
  - Civil engineering materials (cement, concrete and others)
  - Advanced material processing (additive manufacture, simulation and others)
  - Emerging functional materials (electronic, energy and optical aspects)

#### BENEFITS:

- Office and laboratory space, with generous start-up packages
- Internationally competitive salary, with stipends and benefits
- Full support for applications to various talent programmes in China

#### TO APPLY:

- Please specify the faculty position of interest in the cover letter, and send it to the dean, Prof. ZhengMing SUN (zmsun@seu.edu.cn) along with:
  1. A comprehensive curriculum vitae
  2. A brief summary of your scientific achievements (maximum 1 page) with a research and teaching plan (maximum 2 pages)
  3. Three representative research papers
  4. Three references with contact information

#### Serving society

SMSE is strong in technical transfer and commercialisation, and has been an active participant in major transformation projects of Jiangsu Province. Their annual patent applications number more than 100, with about 50 per cent granted. As a powerhouse serving local industrial needs in the Yangtze River Delta, the SMSE works closely with local enterprises. Its extensive network of partnerships has seen at least one joint R&D centre open each year, allowing for research

#### commercialisation.

Targeting technical advancement and economic efficiency, their efforts have won seven scientific and technological awards on various provincial, ministerial and national levels. Taking advantage of its new discoveries in materials and related fields, the SMSE sets out to develop key technologies for the future development of science and technology. ■

