TRANSFORMING RESEARCH EXCELLENCE TO HIGH INDUSTRY VALUE

Unsurpassed in ambition, infrastructure and opportunities, CNITECH has attracted excellent researchers who have achieved cutting-edge results in disciplines from energy to engineering, underpinned by new materials discovery and manufacturing.

Ningbo Institute of Materials Technology and Engineering(CNITECH) of the Chinese Academy of Sciences (CAS) puts the translation of science and technology to industrial production at the centre of its efforts. Cofounded in 2004 by CAS, the Zhejiang provincial government and the Ningbo municipal government, CNITECH, the first CAS institute in Zhejiang, takes on research with far-reaching benefits for society.

In line with China's strategic push for innovation-driven development and the trends of science and technology, CNITECH has chosen materials, advanced manufacturing, renewable energy, and biomedical engineering as its major research focuses, covering 18 specific areas. In 14 years, with the research and development of new materials as the core, CNITECH has made breakthroughs in new materials applications and equipment manufacturing. Its supportive ecosystem for efficient research translation has made it a major research base and a key technology provider.

Demonstrated research strengths

CNITECH has 738 full-time research staff, including more than 270 scientists recruited from abroad. Up to now, the institute has built up 50 distinguished research groups. It has established six graduate programmes and two postdoctoral programmes, currently having 889 graduate students and 101 postdoctoral research fellows. CNITECH also has many well-equipped research laboratories, occupying 140,000m^2.

With talented researchers and world-class R&D platforms, CNITECH has taken on 3,010 research projects funded either by government or industry, bringing significant results. These are demonstrated in 3,453 quality papers and 2,516 granted patents. In 2017, the institute was listed among the global top 500 in the Nature Index, an indicator for quality research. In the same year, it was selected by the national government as a model site for 'mass entrepreneurship and innovation'. Now, the institute is building the Ningbo Material Engineering School for the

RECRUITING TALENTED RESEARCHERS

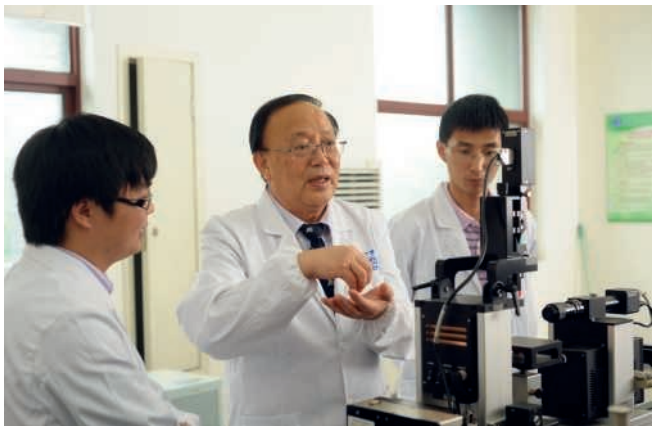
CNITECH is a young, energetic research institution focusing on new materials research and related fields. It has already attracted many excellent scientists and engineers eager to display their talent, enhance their academic reputations, and achieve their goals.

CNITECH is always open to bright minds around the globe. The institute warmly invites talented researchers to join its endeavour to solve significant scientific or technological problems, contributing to science discovery, technology advancement, and industrial growth.

Research fields of particular interest are: polymer and composite materials and their manufacturing, high-performance fibre, magnetic materials and electromechanical equipment, functional materials and nano devices, new marine materials and surface engineering, advanced nuclear materials, photovoltaic technologies, energy storage, catalysis and separation technologies, lithium-ion batteries, functional device systems, precision manufacturing, robotics and intelligent manufacturing, manufacturing information technologies, advanced screening and diagnosis technologies, biomaterials and devices, and rehabilitation systems.

The institute will provide excellent research platforms, generous start-up funds, competitive incentive schemes and compensation packages, and a supportive career development path. The institute will also provide thorough assistance with applying to talent programmes, building up research teams, and establishing research labs.

CNITECH is a great platform for you to realise your full potential.



University of Chinese Academy of Sciences.

CNITECH has made great strides in developing high-strength, high-modulus M60J carbon fibre, leading this technology in the country. It has developed the first-of-its-kind omni-directional mobile manipulator with compliant joint modules and decoupled powered caster wheels. Other examples of CNITECH's research achievements include successful developments of: resource-abundant rare earth permanent magnet materials with high flux density; amorphous/nanocrystalline soft magnetic materials with high saturation flux density and low power loss; a flexible strain sensor with high sensitivity (at the level of 10 mN); and an ultra-fine ferrite MRI contrast agent with molar concentration only one fifth of that in commercially available contrast agents.

Fuelling industrial growth

CNITECH has made tremendous efforts to support China's industrial growth with advanced technologies. Many of its R&D results have been commercialized, creating significant industry value. Within the last 14 years, the institute has successfully transferred 37 advanced technologies to its industry partners, covering graphene, bio-based formaldehyde-free adhesive, high performance lithium battery materials and medical CT materials. In 2017, CNITECH developed technologies covering the entire industry chain, from material preparation to mass production as well as application of the first-of-its-kind graphene-based heavy-duty anticorrosion paint. CNITECH also supported in building China's first production line for chemical vapour deposition (CVD) diamonds, enabling stable production of large-size single crystal diamonds. As a result, China has become one of the four major producers of large single crystal diamonds worldwide. "We are fulfilling our mission of benefiting society with science and technology," said Huang Zhengren, CNITECH director.

Growing through international collaboration

CNITECH always emphasizes attracting talent and integrating new technologies from around the globe. It has established science and technology exchange with more than 100 universities and research institutions in the world. In the last five years, 75% of CNITECH's research groups have participated in international collaboration. Meanwhile, the institute has attracted 21 world-renowned experts as visiting scholars and 16 international postdoctoral fellows.

International collaborations have also extended to the world's top 500 companies, like GE and Bosch. CNITECH's work with Shell in new energy technologies won a prestigious prize for energy research and innovation in 2018. In partnership with Medtronic, one of the world's largest medical device producers, the institute has established a research centre, which has initiated more than 10 joint projects, leading to fruitful R&D achievements. CNITECH is also a member institution of the CAS Innovation Cooperation Center in Bangkok.

CNITECH will continue its pursuit of innovation and excellence, transforming its first-class R&D capacity and results into industry productivity. It strives to be a world-class industrial technology institute by conducting use-inspired research and developing industry-oriented technologies. "We want to become the source of knowledge, the cradle of technologies, and the engine of industrial growth," said Huang. ■

CNITECH

zhangly@nimte.ac.cn
86-574-86685112
english.nimte.cas.cn