

Master's in Materials and Chemical Engineering Functional Materials & Devices

Overview

The goal of the M. Eng Functional Materials & Devices Program is to educate and train professionals and experts with world-class technical capability and experience in the materials field. The program conducts innovative research in three main areas: New energy materials & devices, Low dimension materials & devices, and Electronic materials & devices.

Research

In the past five years, we have been defining the forefront of research in a number of important areas. More than 300 papers have been published by our teams in journals such as Nature Communications, Angewandte Chemie International Edition, Advanced Materials, Energy & Environmental Science, Advanced Energy Materials, ACS Nano, Advanced Functional Materials, Nano Energy, among which nearly 100 articles have impact factors exceeding 10. We have over 70 authorized invention patents, of which more than 30 have been commercialized by technology transfer.

Our team has 21 national funded projects, and 78 other research projects with various funding support.

With sufficient research funding and advanced teaching and research conditions, faculty and students in our project can extend the frontiers of engineering knowledge through their research. We possess state-of-art research equipment and analytical instruments for materials preparation and physical and electrochemical analysis. Our laboratory and main research platforms include: Shenzhen Geim Graphene Research Center led by Nobel Laureate Andre Geim, National Joint Engineering Laboratory of Carbon Functional Materials, Guangdong Graphene Innovation Center, Guangdong Key Laboratory of Thermal Management Engineering and Materials, as well as Guangdong Advanced Battery and Materials Engineering Technology Research Center.

Professional Development

Students will complete the master's program in 2 to 3 years. Integrating engineering courses with research, the program trains students with the ability to solve existing problems in the industry. So far, 174 students have graduated from the Materials Engineering program. Numerous students have won awards

including the Shenzhen Graduate School Academic Rookie Award, National Scholarship, Tsinghua Excellent Master Thesis and Beijing Excellent Graduate.

Faculty Profiles

The M.Eng in Functional Materials & Devices has a world-class team of 30 full-time faculty members conducting cutting-edge research in a wide variety of areas. Among our team are academicians from the Chinese Academy of Sciences, chief scientists of National Key R & D Programs, and more than 10 provincial and municipal talent project winners.

Prof. Kang Feiyu's team was awarded second prize in the National Invention Awards (2017) and first prize in the Tianjin Natural Science Awards (2014); Prof. Li Bo won second prize in the National Natural Science Awards (2016) and Prof. Li Baohua was elected into the National Ten Million Talent Project in 2019.