

## **College of Engineering and Technology, Southwest University**

College of Engineering and Technology, Southwest University (CET-SWU), originated from the Department of Agricultural Mechanization, Southwest Agricultural University, was founded in 1958, which is one of the colleges with a long history of development in Southwest University.

Now, CET-SWU has 138 faculty members, including 23 professors (including a part-time academician of Chinese Academy of Engineering) and 51 associate professors. Among the faculty, 86% have a doctor's degree, and 52% have experience of study and living in overseas.

CET-SWU has 6 undergraduate majors, including Agricultural Mechanization and Automation (AE), Mechanical Design Manufacture and Automation (ME), Electrical Engineering and Automation (EE), Intelligent Manufacture Engineering, Intelligent Vehicle Engineering, Civil Engineering (CE). Among the 6 undergraduate majors, AE and EE has been approved as a national top undergraduate major construction point of China. ME passed the international engineering education certification; ME and EE are approved as characteristic majors of big data and intelligence of Chongqing. AE, ME and EE are the top undergraduate major construction point of Chongqing, and on this basis, Chongqing modern agricultural mechanical and electrical engineering characteristic specialty group are formed.

CET-SWU has a doctorate discipline (AE), 2 master disciplines (AE and ME), and 4 professional master disciplines (AE, ME, CE, EE). Among them, the doctorate and master discipline of AE are composed of 4 sub doctorate and master discipline, including Agricultural Mechanization Engineering, Agricultural Biological Environment and Energy Engineering, Agricultural Soil and Water Engineering, Agricultural Electrification and Automation. The master discipline of ME are composed of 4 sub master disciplines, including Mechanical Manufacturing and Automation, Mechanical and Electronic Engineering, Mechanical Design and Theory,

Vehicle Engineering.

In 2019, the Agricultural Engineering postdoctoral research station was officially approved, and there are 2 joint-supervision postdoctoral fellows and 2 full-time postdoctoral fellow currently.

CET-SWU owns a national research platform (National and Local Joint Engineering Laboratory for Intelligent Transmission and Control Technology), 2 provincial or ministerial research platforms (Chongqing Key Laboratory of Agricultural Equipment in Hilly and Mountainous Areas, Chongqing Agricultural Technology Innovation Method Engineering Technology Center) and a provincial teaching platform (Chongqing Engineering Experimental Teaching Center).

Focus on the development of AE and ME, CET-SWU has formed 8 frontier research directions, including Intelligent Agricultural Equipment, Intelligent Detection and Control, Intelligent Environment Control and Breeding, Intelligent Manufacturing Technology and Equipment, New Energy and Intelligent Vehicle, Robot Technology and Application, Intelligent Power Transmission Transformation Technology and Equipment, Intelligent Building.

Combined with the needs of national economic construction, the college actively carries out research work, and has won 7 national, provincial or ministerial awards for its research achievements.

In the past 5 years, CET-SWU has presided over 368 scientific research projects with a total funding of 95.41 million yuan. 72 invention patents are authorized, and more than 410 SCI and EI index papers were published. A number of scientific research achievements have been promoted and applied to production practice, and good economic and social benefits have been achieved.

CET-SWU has a complete training system for undergraduate, master and doctoral candidates. Currently, there are more than 1900 undergraduate students and 270 master or doctor students in the school.

CET-SWU are paying attention to train the students' engineering ability and to develop their academic vision, encourage students to take an active part in all kinds of academic communications, science and technology competitions. The students have won more

than 1 000 national or provincial awards, etc., students of CET-SWU won the gold medal in the National Finals of the 7th China International "Internet Plus" College Student Innovation and Entrepreneurship Competition in 2021. CET-SWU focusing on the all-round development of students, we holds colorful extracurricular activities to improve the comprehensive quality of students. In 2021, the College won the national third prize in the 17th "Challenge Cup" National College Students Extracurricular Academic Science and Technology Works Competition Red Special activity

CET-SWU also pay attention to international communications. It has carried out deep cooperation with more than 20 well-known universities and research institutions in the United States, The United Kingdom, Canada, Germany, Australia, Singapore, etc., in terms of short-term student visiting programs, 2+2 and 3+2 degree programs, student exchange programs, summer International Curriculum week programs, scientific research cooperation, visiting scholar programs, etc.

CET is vigorously implementing internationalization strategy, although the CET does NOT rule out other possibilities, currently, it is most interested in establishing a Joint Program\* in either of the following areas at either undergraduate or graduate level:

- Agricultural Mechanization and Automation (AE)
- Mechanical Design, Manufacturing and Automation (ME)
- Electrical Engineering (EE)

\*Here, the Joint Program refers to the Chinese-foreign Cooperatively-run Program that has to be approved by the Chinese Ministry of Education.

At present, the college is vigorously implementing the talent strategy, actively promoting the reform of engineering education, accelerating the construction of top disciplines, focusing on cultivating new engineering talents with all-round development, and striving to build a high-level and distinctive research and teaching college with great strides forward.