



# SCUT Newsletter 华工新闻快讯

## 1. SCUT won 11 prizes of national teaching achievement award in higher education

### 华南理工大学喜获11项高等教育国家级教学成果奖

In July, the Ministry of Education released the list of winners of the 2022 National Teaching Achievement Award in Higher Education. As an independent completion unit and the first completion unit, SCUT won a total of 5 prizes (undergraduate), including 1 first prize and 4 second prizes. In addition, as a participating unit, SCUT won 1 special prize and 5 second prizes of said achievement award (undergraduate).

7月，教育部公布2022年国家级教学成果奖获奖项目名单。华南理工大学作为独立完成单位、第一完成单位共有5项成果荣获高等教育（本科）国家级教学成果奖，其中一等奖1项、二等奖4项。此外，华工还作为参与完成单位获高等教育（本科）国家级教学成果特等奖1项、二等奖5项。

Annex: List of prizes of the 2022 National Teaching Achievement Award for Higher Education (Undergraduate) won by SCUT

附：华南理工大学2022年高等教育（本科）国家级教学成果奖获奖项目一览表

No. 序号	Prize Level 获奖等级	Achievement Name 成果名称	Note 备注
1	First prize 一等奖	Journey to the west, sharing and win-win: exploration and practice of curriculum sharing alliance in eastern and western universities based on MOOC 慕课西行,共享共赢: 东西部高校课程共享联盟的探索与实践	Independent completion unit 独立完成

2	Second prize 二等奖	Ideological and political content construction and teaching practice in university English course 大学英语课程思政内涵建设与教学实践	Independent completion unit 独立完成
3	Second prize 二等奖	Innovation and practice of the international excellent talent cultivation model for civil engineering, which is certification driven and focused on morality, knowledge and ability “认证驱动、德识能三联动”的土木工程国际化卓越人才培养模式创新与实践	Independent completion unit 独立完成
4	Second prize 二等奖	Construction and practice of ideological and political education system characterized by "One Core, Three Blocks, and Six Plans" in the new era 新时代“一核心三板块六计划”大思政育人体系的构建与实践	Independent completion unit 独立完成
5	Second prize 二等奖	Exploration and practice in deep integration of innovation and entrepreneurship education and professional education in research-type universities 研究型大学创新创业教育与专业教育深度融合的探索与实践	Independent completion unit 独立完成
6	Special prize 特等奖	New engineering education 新工科教育	Participating unit 参与完成
7	Second prize 二等奖	Comprehensive reform and practice of the innovation and entrepreneurship education system led by the National Innovation Plan (note: it is the abbreviation for National College Student Innovation and Entrepreneurship Training Program) “国创计划”引领的创新创业教育体系综合改革与实践	Participating unit 参与完成
8	Second prize 二等奖	Reform and practice of cultivation of college students' creative and innovative ability promoted by 20 years of structural design competition 结构设计竞赛20年促进大学生创意创新创造能力培养的改革和实践	Participating unit 参与完成
9	Second prize 二等奖	Integration and sharing: education model construction and demonstration of civil engineering in the new era “水土交融，场网共享”新时期大土木实践育人模式构建与示范	Participating unit 参与完成
10	Second prize 二等奖	Practice of co-construction and sharing mechanism for online open courses among universities in Guangdong-Hong Kong-Macao Greater Bay Area 粤港澳大湾区高校在线开放课程共建共享机制的创建与实践	Participating unit 参与完成
11	Second prize 二等奖	Computer fundamentals course system reconstruction and practice with equal emphasis on computational thinking and information literacy 计算思维和信息素养并重的计算机基础课程体系重构与实践	Participating unit 参与完成

## 2. SCUT was ranked first at the 24<sup>th</sup> China Patent Award in terms of number of awards among universities in China

### 第24届中国专利奖公布 华南理工获奖数居全国高校第一

On July 21, the China National Intellectual Property Administration (CNIPA) released the winners of the 24th China Patent Award. SCUT won 11 excellence awards, ranking first among universities in China in terms of the number of awards. Since 2009, SCUT has won a total of 50 awards (including 2 gold and 5 silver awards) as the first patent holder, ranking first among universities in China in terms of number of awards.

7月21日，国家知识产权局发布了《关于第二十四届中国专利奖授奖的决定》，华南理工大学共获11项中国专利优秀奖，获奖数量排名全国高校第一；自2009年以来，华南理工大学以第一专利权人获奖总数达到50项（含2金5银），获奖总数排名全国高校首位。

### List of Awards Won by SCUT at the 24<sup>th</sup> China Patent Award

### 华南理工大学第二十四届中国专利奖获奖清单

Patent Number 专利号	Name 名称	School 学院
ZL201310181785.2	CWS water with a phenol lignin dispersant and its preparation method and application 一种酚水水煤浆用木质素系分散剂及其制备方法与应用	School of Chemistry and Chemical Engineering 化学与化工学院
ZL201410201131.6	A structural-damage iterative focusing imaging monitoring method based on synthesis time reversal 基于合成时反的结构损伤迭代聚焦成像监测方法	School of Mechanical and Automotive Engineering 机械与汽车工程学院
ZL201210559236.X	Thermal/flow management system for passive direct methanol fuel cells (DMFC) 用于被动式直接甲醇燃料电池的热/流管理系统X	School of Mechanical and Automotive Engineering 机械与汽车工程学院
ZL201611222339.1	A fault diagnosis and life testing machine for a flexible precision thin-wall bearing 一种柔性精密薄壁轴承故障诊断寿命试验机	School of Mechanical and Automotive Engineering 机械与汽车工程学院
ZL201410018708.X	InGaAs thin film grown on Si substrate and its preparation method 生长在Si衬底上的InGaAs薄膜及其制备方法	School of Materials Science and Engineering 材料科学与工程学院
ZL201310187909.8	A method for preparing cerium-manganese/molybdenum multi-element composite conversion coating on the surface of aluminum alloy 一种在铝合金表面制备铈锰/钼多元复合转化膜的方法	School of Materials Science and Engineering 材料科学与工程学院
ZL201810501975.0	Unit testing method based on automated test case generation for path coverage 基于路径覆盖测试用例自动生成的单元测试方法	School of Software Engineering 软件学院
ZL201911126607.3	Frequency locking method and circuit for phase-locked Loop 一种锁相环的频率锁定方法及电路	School of Microelectronics 微电子学院
ZL201710325036.0	Electric vehicle charging and discharging control method based on prioritization of failure risk in charging 基于充电失败风险排序的电动汽车充放电控制方法	School of Electric Power Engineering 电力学院
ZL201510547007.X	A method for production of enriched whole-grain flour through combined use of pulse electric field and ultra-fine grinding 一种脉冲电场协同超微粉碎生产强化全谷物粉的方法	School of Food Science and Engineering 食品科学与工程学院
ZL201510988188.X	An aluminum matrix composite reinforced by high-entropy alloy particulates and its stir-casting fabrication method 一种高熵合金颗粒增强铝基复合材料及其搅拌铸造制备工艺	School of Mechanical and Automotive Engineering 机械与汽车工程学院





### 3. SCUT Student's Team won the Best Project Team Award in the practical training and investigation of the Global Governance and International Organization Youth Elite Talent Project

#### 华南理工学子获全球治理与国际组织青年菁英人才项目实训与调研“最佳项目组”奖

On August 10, the students in the first session of Global Governance and International Organization Youth Elite Talent Project held a defense meeting on practical training and investigation results with the theme of a community with a shared future for mankind at the conference room of the Palace of Nations in Geneva, Switzerland. A team, where there was member named Zhou Junlin, a 2021 undergraduate majoring in robotics at Shien-Ming Wu School of Intelligent Engineering of SCUT, won the Best Project Team Award for their research report titled "Comparative Analysis of Carbon Accounting Based on International Trade Rules: Taking Textile and Leather Products as Consumer-Goods in the Manufacturing Industry as an Example".

8月10日，全球治理与国际组织青年菁英人才项目首期学员在瑞士日内瓦万国宫会议室召开人类命运共同体主题实训与调研成果答辩会。华南理工大学吴贤铭智能工程学院机器人专业2021级本科生周俊霖凭借小组调研报告“基于国际贸易规则的碳核算比较分析：以制造业消费品纺织与皮革制品为例”斩获“最佳项目组”奖项。

The Global Governance and International Organizations Youth Elite Talent Program conducts practical training and research on seven major themes, including *Green Economy - Sustainable Value Chain and Enterprise ESG (Environmental, Social and Corporate Governance) Management, Climate Change and Global Sustainable Refrigeration, and Analysis of Global Sustainable Product Policies and Standards, etc.*

全球治理与国际组织青年菁英人才项目围绕“绿色经济——可持续价值链与企业ESG（环境、社会和公司治理）管理”“气候变化与全球可持续制冷”“全球可持续产品政策和标准分析”等7个主题开展实训与调研。

# 机甲大师超级对抗赛全国总决赛季军



## 4. South China Tiger Team from SCUT won the third place in the National Finals of the RoboMaster University Championship (RMUC) 2023

### 华南理工大学华南虎战队夺得RoboMaster2023机甲大师超级对抗赛全国总决赛季军

On August 13, the National Finals of the RoboMaster University Championship (RMUC) 2023 began in Shenzhen, with the participants including about 1,000 young engineers from 32 universities in China. The South China Tiger Team of SCUT won the third place.

8月13日，第二十二届全国大学生机器人大赛 RoboMaster 2023机甲大师超级对抗赛全国总决赛（以下简称机甲大师赛）在深圳举行，来自全国32所高校的近1000名青年工程师参赛，华南理工大学华南虎战队斩获全国季军。

RMUC is one of the events under the China University Robot Competition. The core rule is the tactical confrontation of multi-functional robot teams, which focuses on examining the comprehensive application and engineering practice abilities of participating students in science and engineering disciplines. At the same time, it encourages students to innovate and create new things that are in line with the times or even lead the times.

机甲大师赛是全国大学生机器人大赛旗下赛事之一，核心规则是多功能机器人的团队战术对抗，侧重考察参赛学生对理工类学科的综合应用与工程实践能力，同时鼓励学生勇于创新，创造符合时代甚至引领时代的新事物。

**Rankings**

Year	Ranking Range
2019	201-300
2020	151-200
2021	151-200
2022	151-200
2023	151-200

South China University of Technology

ARWU Academic Ranking of World Universities

US NEWS & WORLD REPORT

QS WORLD UNIVERSITY RANKINGS

THE WORLD UNIVERSITY RANKINGS

## 5. A New Record: SCUT entered the top 150 in the Academic Ranking of World Universities (ARWU)

### 跃升至全球前150强 华南理工“世界大学学术排名”实现新突破

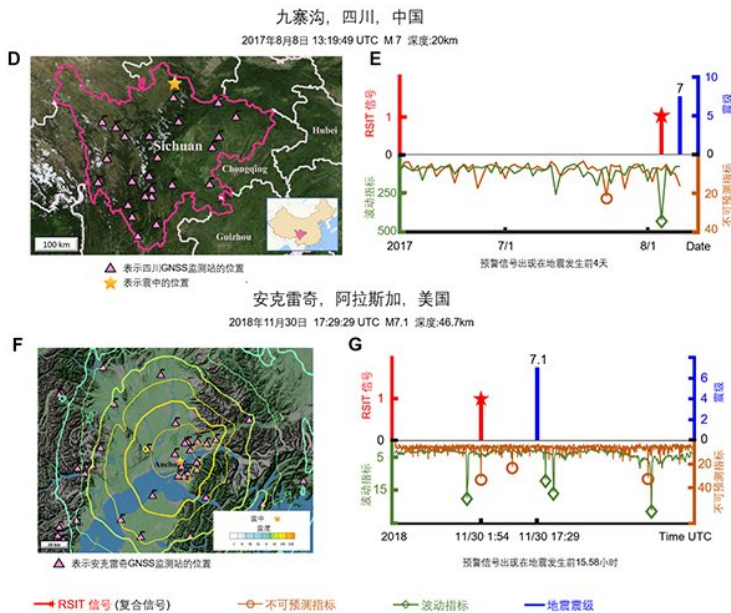
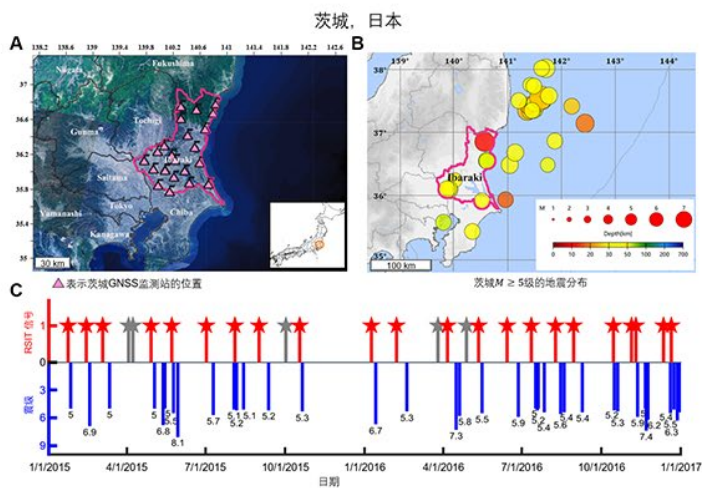
On August 15, ShanghaiRangking's Academic Ranking of World Universities (ARWU) 2023 was officially released, and SCUT was ranked among the top 150 for the first time.

8月15日，“2023软科世界大学学术排名”正式发布，华南理工大学排名首次跻身前150强。

In recent years, SCUT has been continuously in a good place in the four major global university rankings. 2 subjects, Polymer Science and Food Science and Technology, were ranked first in the US News 2023 (8 universities in total from Chinese mainland), 5 subjects ranked in the top 10 in the world; 18 subjects were ranked in the top 100 in ShanghaiRangking's Global Ranking of Academic Subjects; 5 subjects were included in the top 1‰ of ESI and 14 subjects in the top 1% of ESI.

近年来，华南理工大学在全球四大排行榜的排名不断提升，其中高分子科学、食品科学与技术2个学科位居US News 2023世界大学学科排名第一（内地高校共8个），5个学科进入世界前10，18个学科入围软科世界一流学科百强；5个学科进入ESI前1‰，14个学科进入ESI前1%。





## 6. Mathematical model to be helpful in earthquake alerting: The team from SCUT published the latest research results on the PNAS

### 数学模型助力地震前兆预警 华南理工大学科研团队在PNAS发表最新成果

In September, the team from SCUT published the research results titled "Earthquake Alerting Based on Spatial Geodetic Data by Spatiotemporal Information Transformation Learning" in the internationally renowned academic journal "Proceedings of the National Academy of Sciences of the United States of America" (PNAS), proposing a scientific method in the field of earthquake monitoring.

9月，华南理工大学科研团队在国际著名学术期刊《Proceedings of the National Academy of Sciences of the United States of America》(PNAS) 发表了题为"Earthquake alerting based on spatial geodetic data by spatiotemporal information transformation learning"的研究成果，提出了在地震灾害监测领域具有参考价值的科学方法。

The research results established the framework of the real-time spatiotemporal information transformation learning (RSIT) based on the delay embedding theory and the dynamic network biomarker (DNB) to construct a pair of conjugate spatiotemporal information transformation equations and transform observable high-dimensional spatial information into one-dimensional dynamic information contained in explicit/implicit variables. The research results can be applied in fields such as earthquake monitoring.

研究成果建立了基于延迟嵌入理论和动态网络标志物方法的实时数据时空信息转化学习的框架 (real-time spatiotemporal information transformation learning, RSIT)，构建了一对共轭的时空信息转化方程组，将可观测的高维空间信息转化成显变量/隐变量的一维动态信息，可应用在地震灾害监测等领域。



## Fellows



**David Zhang**

Fellow of Royal Society of Canada; Fellow of Canadian Academy of Engineering; IEEE Life Fellow; IAPR Fellow; Croucher Senior Research Fellow; Presidential Chair Professor in Chinese University of Hong Kong (Shenzhen)



**Da-Wen Sun**

Member of Royal Irish Academy; Member of Academia Europaea; Foreign Member of Polish Academy of Sciences; Full Member of International Academy of Refrigeration; Fellow of International Academy of Food Science and Technology; Fellow of International Academy...



**De-Shuang Huang**

IEEE Fellow; IAPR Fellow; Professor with the Department of Computer Science and Director of Institute of Machine Learning and Systems Biology at Tongji University, China.

## 7. Visiting Professor Da-Wen Sun of SCUT was awarded the honorary title of Fellow of Asia-Pacific Artificial Intelligence Association (AAIA Fellow)

### 华南理工孙大文教授被授予亚太人工智能学会会士荣誉称号

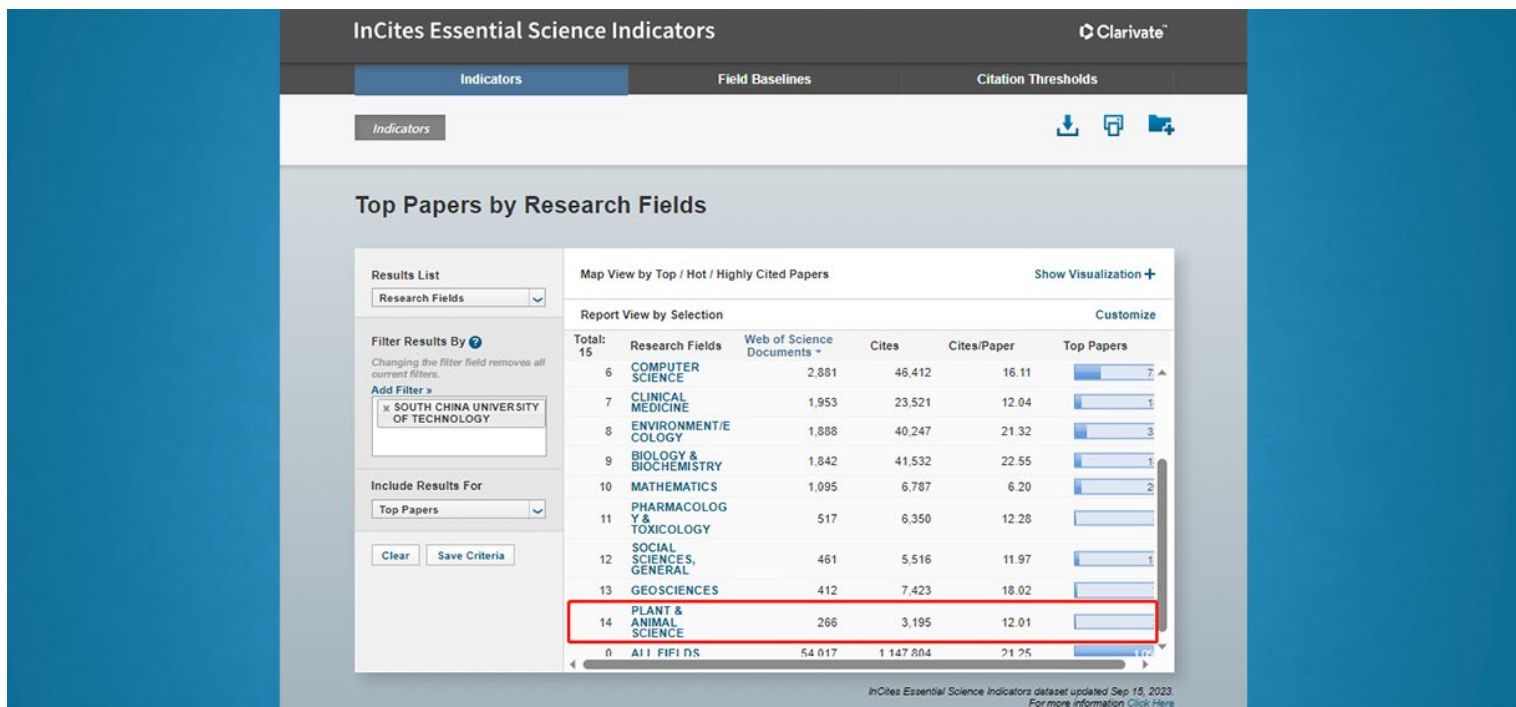
On September 12, Da-Wen Sun, only Chinese academician of six academies in Europe, visiting professor at SCUT, and director of the Academy of Contemporary Food Engineering at SCUT, joined the Asia-Pacific Artificial Intelligence Association (AAIA) and was awarded the honorary title of AAIA Fellow.

AAIA covers a wide range of artificial intelligence industries, aims to strengthen cooperation between scientists in the global artificial intelligence field and those in other fields, and promote the development and application of artificial intelligence through academic research, exchanges, publications and so forth. Its fellows mostly come from well-known universities such as Stanford University, Princeton University, Massachusetts Institute of Technology, University of Oxford, as well as high-tech companies such as Google, Microsoft, and IBM.

9月12日，欧洲唯一华人“六院院士”、华南理工大学客座教授、现代食品工程研究中心主任孙大文(Da-Wen Sun)加入亚太人工智能学会，获亚太人工智能学会会士 (AAIA Fellow) 荣誉称号。

亚太人工智能学会涵盖广泛人工智能行业，旨在加强全球人工智能领域的科学家和其他领域的科学家的合作，通过学术研究、交流、出版等活动促进人工智能的发展和应用。其会士多来自于斯坦福大学、普林斯顿大学、麻省理工学院、牛津大学等知名高校，以及谷歌、微软、IBM等高科技公司。





## 8. Strengthening basic disciplinary development and promoting cross-disciplinary construction: breakthroughs were successively achieved

### 强基础 促交叉 学校学科建设不断取得新突破

On September 15, according to the latest update of Clarivate Analytics's Essential Science Indicators (ESI) database, the research performance and impact of Plant and Animal Biology in SCUT entered the global top 1%. This is the 14th discipline of SCUT that was included in the top 1% of the ESI Global Disciplines Ranking. Its 13th discipline, that is, Earth Science, was ranked the same place in this ranking in May this year.

9月15日，科睿唯安基本科学指标数据库数据显示，华南理工大学植物与动物学跻身全球排名前1%学科行列。这是华工第14个ESI全球前1%学科，也是继今年5月地球科学之后又一个进入ESI全球前1%的学科。



## 9. A delegation of the Communist Party of Vietnam (CPV) attended the graduation ceremony of the Guangzhou Training Class for Reserve Cadres of Hanoi

### 越南共产党代表团来校参加河内后备干部广州培养班结业仪式

On September 25, Dinh Tien Dung, Member of the Politburo of the Central Committee of CPV and Secretary of the Hanoi Party Committee, led a delegation composed of 26 members of CPV to visit South China University of Technology (SCUT), where they attended the graduation ceremony of the said training class.

9月25日，越共中央政治局委员、河内市委书记丁进勇率越南共产党代表团26人来访华工，出席河内后备干部广州培养班结业仪式。

A memorandum of understanding on strengthening cooperation and exchange was signed on September 26 between Hanoi and Guangzhou as sister cities. Under the framework of this memorandum, Hanoi sent 20 reserve cadres to Guangzhou for training. SCUT held this training course at the Guangzhou Higher Education Mega Center campus from September 19 to 25. This is the first time that SCUT has undertaken a customized training of cadres project from a foreign government, which is conducive to building a diversified exchange platform, exploring the establishment of the long-term exchange mechanism with countries related to the Belt and Road, and creating a new situation for people-to-people and educational exchanges.

河内市与广州市于9月26日签署加强友好城市合作交流备忘录，在此备忘录框架下，河内市派出20名后备干部赴广州进行培训，于9月19日-25日在华工大学城校区举办培养班。这是华工首次承接国外政府定制干部培训项目，有利于构建多样化交流平台，探索与“一带一路”相关国家建立长效交流机制，开拓人文交流和教育交流新局面。

Produced by: International Office, SCUT

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Designer: JOYO Advertising

Issue Date: October, 2023

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发布时间：2023年10月