SOUTH CHINA UNIVERSITY OF TECHNOLOGY

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SCUT Newsletter 华工新闻快讯

1. Professor Chen Haoyong of the School of Electric Power Engineering elected as fellow of the Academy of Engineering and Technology of the Developing World

电力学院陈皓勇教授当选发展中世界工程技术院院士

In August, the Academy of Engineering and Technology of the Developing World (AETDEW) announced the list of newly elected fellows, which includes Professor Chen Haoyong of the School of Electric Power Engineering of

South China University of Technology.

8月，发展中世界工程技术院（The Academy of Engineering and Technology of the Developing World，简称AETDEW）公布院士增选名单，华南理工大学电力学院陈皓勇教授成功当选。

Professor Chen Haoyong has long been focusing on the core academic fields of modeling, analysis, optimization and control of complex (large-scale, stochastic, hybrid, distributed, networked) power (energy) systems, insisting on the original innovation of the key basic theories and methods, and has wide and lasting influence in domestic and international academic circle and power industry. Through the platform of AETDEW, Professor Chen Haoyong will make new contributions in promoting the implementation of the Belt and Road Initiative, helping developing countries eradicate poverty and develop their economies, coping with global climate change and promoting world peace and equality by promotion and application of R&D achievements.

陈皓勇教授长期以来，围绕复杂（大规模、随机性、混杂性、分布式、网络化）电力（能源）系统建模、分析、优化与控制的核心学术领域，坚持"从0到1"的核心基础理论与方法的原始创新，在国内外学术界和电力工业界具有广泛和持久的影响力。借助AETDEW的平台，陈皓勇教授将以科研成果推广应用的方式在推进"一带一路"建设、帮助发展中国家摆脱贫困和发展经济、应对全球气候变化和促进世界和平等重要议题中作出新的贡献。

The AETDEW is an international academic institution established under the auspices of UNESCO to provide scientific and technological support for the realization of the UN global action plan to facilitate poverty alleviation and economic development in developing countries.

发展中世界工程技术院是在联合国教科文组织支持下成立的国际学术机构，旨在为实现联合国促进发展中国家摆脱贫困、发展经济的全球行动计划提供科学技术力量支持。

2. New breakthrough! 18 subjects of SCUT ranked among top 50 on ShanghaiRanking's Global Ranking of Academic Subjects

新突破！华南理工18个学科入榜软科世界一流学科排名前50

The 2023 "ShanghaiRanking's Global Ranking of Academic Subjects" was officially released on October 27. The list includes 31 subjects offered by SCUT, of which 4 subjects ranked among the top 10. SCUT was tied for 7th place among mainland universities in terms of the number of selected subjects. The number of SCUT's subjects ranking among the top 50 has doubled from 9 in 2022 to 18, putting SCUT 8th among mainland universities. SCUT has 20 subjects that rank among the top 100, ranking 16th among mainland universities.

10月27日，2023年"软科世界一流学科排名"正式发布，华南理工大学共有31个学科上榜，其中，4个学科跻身世界前10，入选数位居内地高校并列第7位；世界前50学科数由2022年的9个倍增至18个，位居内地高校并列第8位；世界前100学科数20个，位居内地高校第16位。

Attached: Statistics of the number of SCUT subjects on the list：

University 学校名称	Number of Top 10 Subjects 前10名学科数	Number of Top 50 Subjects 前50名学科数	Number of Top 100 Subjects 前50名学科数	Number of Top 200 Subjects 前200名学科数	Number of Top 500 Subjects 前500名学科数
Tsinghua University 清华大学	16	33	36	42	48
Shanghai Jiao Tong University 上海交通大学	11	25	32	44	50
Zhejiang University 浙江大学	8	24	38	49	53
Harbin Institute of Technology 哈尔滨工业大学	7	19	23	25	32
Southeast University 东南大学	6	11	16	23	30
University of Science and Technology of China 中国科学技术大学	5	18	22	26	33
Peking University 北京大学	4	24	36	47	49
South China University of Technology 华南理工大学	4	18	20	21	31
Sichuan University 四川大学	4	13	22	28	42
Xi'an Jiaotong University 西安交通大学	4	11	23	31	38
Northwestern Polytechnical University 西北工业大学	4	10	17	20	25

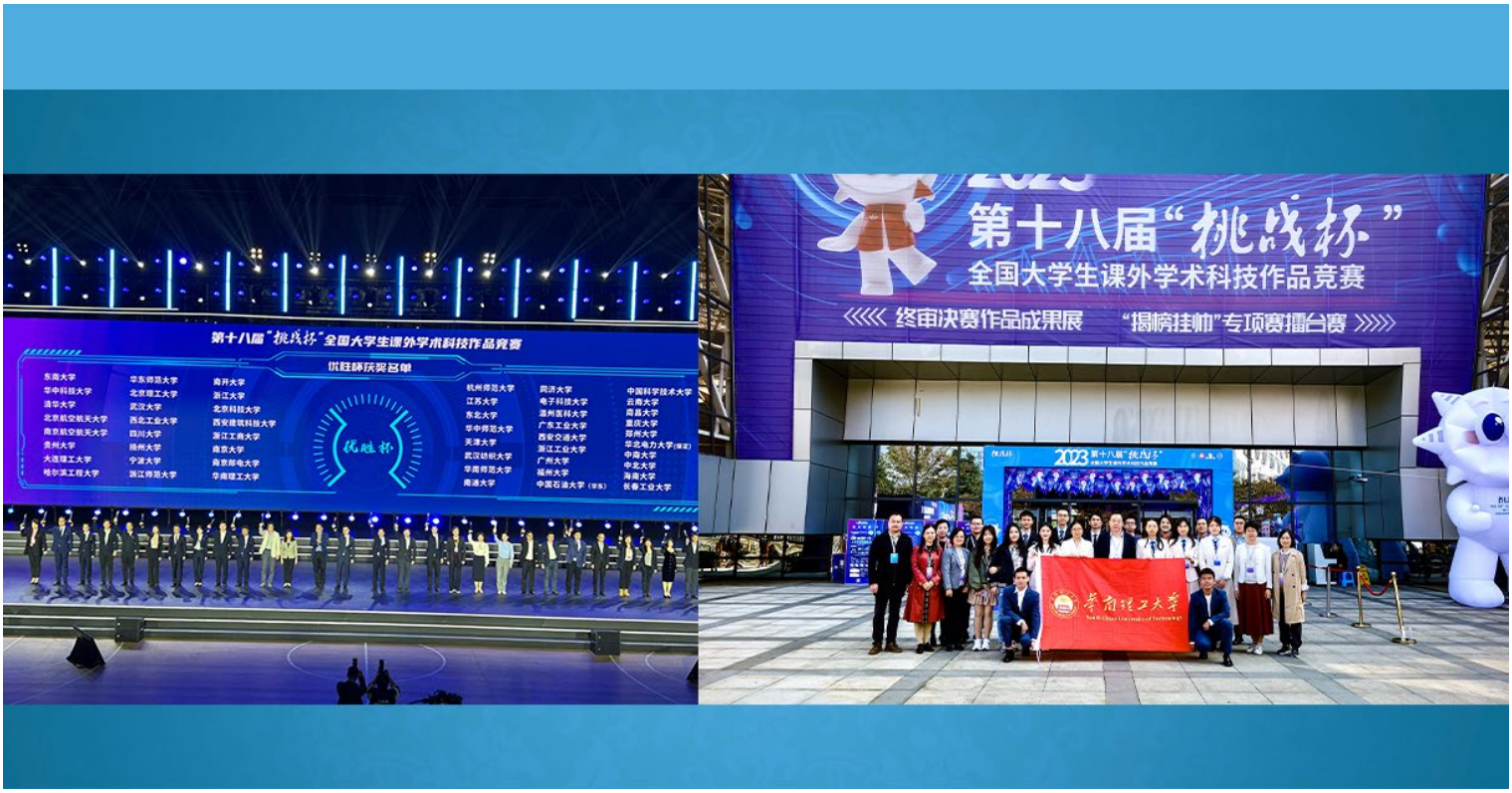
Attached: SCUT subjects that rank among the top 100 in the world:

Number 序号	Subject 学科名称	Ranking 排名
1	Food Science & Technology 食品科学与工程	3
2	Textile Science and Engineering 纺织科学与工程	7
3	Energy Science & Engineering 能源科学与工程	8
4	Chemical Engineering 化学工程	10
5	Nanoscience & Nanotechnology 纳米科学与技术	16
6	Mechanical Engineering 机械工程	21
7	Materials Science & Engineering 材料科学与工程	24
8	Biotechnology 生物工程	24
9	Chemistry 化学	25
10	Instruments Science & Technology 仪器科学与技术	25
11	Telecommunication Engineering 通信工程	31
12	Transportation Science & Technology 交通运输工程	39
13	Automation & Control 控制科学与工程	41
14	Computer Science & Engineering 计算机科学与工程	42
15	Civil Engineering 土木工程	45
16	Marine/Ocean Engineering 船舶与海洋工程	47
17	Biomedical Engineering 生物医学工程	48
18	Electrical & Electronic Engineering 电气与电子工程	49
19	Environmental Science & Engineering 环境科学与工程	59
20	Metallurgical Engineering 冶金工程	73

Times Higher Education (THE) also released its latest World University Rankings by subject on October 26. SCUT

saw more of its subjects in the arts and humanities fields on the list among the 11 fields of subjects concerned, bringing the total to 8 and being tied for 17th place among mainland universities. Its engineering subject ranks among the top 200 in the world, and its science and life sciences are ranked among the top 300 in the world.

10月26日，泰晤士高等教育也发布了最新世界大学学科排名。在其涉及的11个学科领域中，华南理工大学艺术与人文学科领域新增上榜，上榜总数达到8个，位居内地高校并列第17位。其中，工学排名进入全球前200强，理学、生命科学排名进入全球前300位。



3. SCUT won two special prizes at "Challenge Cup" Competition, scooping the "Excellence Cup" again

“挑战杯”国赛获两项特等奖　华南理工再捧“优胜杯”

On October 30, the finals of the 18th "Challenge Cup" National Extracurricular Academic and Technological Works Competition for College Students was held in Guizhou. SCUT won 2 special prizes, 1 first prize, 2 second prizes, and 1 third prize, ranking first for group aggregate score among universities in Guangdong province, and again won the "Excellence Cup" of the "Challenge Cup" competition.

10月30日，第十八届“挑战杯”全国大学生课外学术科技作品竞赛决赛在贵州举行。华南理工大学揽获特等奖2项、一等奖1项、二等奖2项、三等奖1项，团体总分居广东高校第一，再次捧起“挑战杯”国赛“优胜杯”。

The competition, with the theme of "Technological Innovation for a Bright Future", drew over 2.5 million students from over 2,000 colleges and universities nationwide who submitted over 400,000 entries.

本次大赛以“科创筑梦，挑战未来”为主题，共吸引到全国2000多所高校、40余万作品、250多万学生参赛。

After 34 years of development, the Challenge Cup has become an influential practice platform for students, a second classroom for instilling the scientific spirit in students, and a platform for enhancing students' collaboration ability and collective spirit. It is known as the Olympic event of scientific and technological innovation for college students.

“挑战杯”竞赛经过34年的发展，已成为具有重要影响力的面向广大青年学生的实践平台、培养青年学生科学精神的第二课堂、提升青年学生协作能力和集体观念的有形载体，被誉为当代大学生科技创新的“奥林匹克”盛会。

4.The 4th International Symposium for Soft Matter Science and Technology held at SCUT

第四届软物质科学与技术国际学术研讨会在华南理工召开

On November 16, the 4th International Symposium for Soft Matter Science and Technology ("4th SMST Symposium" for short) was held at Guangzhou International Campus of SCUT.

11月16日，第四届软物质科学与技术国际学术研讨会（以下简称“第四届SMST研讨会”）在华南理工大学广州国际校区举行。

The first SMST Symposium was held in 2017. The 4th SMST Symposium aims to explore the future direction of research on soft matter and its ongoing impact in various scientific and technological fields, and to steer the evolving research on soft matter. Twenty-two heavy-hitter scholars from China, the United States, Japan and Europe were invited to share views and discuss the latest achievements in soft matter disciplines such as macromolecules, supramolecules, conjugated soft materials, nano-engineered polymers, protein topological material, electron beam-sensitive crystal materials, and slip ring materials.

SMST研讨会于2017年首次召开，第四届SMST研讨会旨在探索软物质研究的未来方向及其对各个科技领域的持续影响，为不断发展的软物质研究导航。本届研讨会来自中美日欧的22位重量级国际学者受邀参会，分别就大分子、超分子、共轭软材料、纳米工程聚合物、蛋白质拓扑材料、电子束敏感晶体材料、滑环材料等软物质学科的前沿成果做分享讨论。

5.SCUT hosted the 11th Asia-Pacific Conference on Antennas and Propagation

华南理工大学主办第11届亚太天线传播会议

The 11th IEEE Asia-Pacific Conference on Antennas and Propagation (APCAP2023) was held in Guangzhou from November 19 to 22.

11月19日至22日，第11届IEEE亚太天线传播会议（IEEE 11th Asia-Pacific Conference on Antennas and Propagation，以下简称APCAP2023）在广州举办。

The conference drew many well-known experts from home and abroad. Over 30 research topics were set and discussed, including antennas, electromagnetic wave propagation, antenna and radio frequency system measurements, microwave/millimeter wave/terahertz devices and systems. The conference also set more than 20 special session with topics such as "AI-based antenna design" and "metasurface antenna". The conference received submissions from 17 countries and regions, including the United Kingdom, the United States, Denmark, Russia, Canada, Singapore, Japan, South Korea, and Hong Kong and Macao of China, and 672 papers were accepted, which is the highest among all APCAPs.

本届会议吸引了众多国境外知名专家参会，涉及了天线、电磁波传播、天线及射频系统测量、微波/毫米波/太赫兹器件及系统等相关30个研究主题，并设立了“AI+天线”、“超表面天线”等20余个特别分会场主题。本次大会共收到来自英国、美国、丹麦、俄罗斯、加拿大、新加坡、日本、韩国、中国香港/澳门等17个国家和地区的投稿，实际录用672篇，为历届APCAP会议录用论文数量之最。

The APCAP, a large-scale international academic event aims to promote exchange and interaction among scholars in the field of antenna and propagation in the Asia-Pacific region. The conference, held for the first time in Singapore in 2012, has since been held in China, New Zealand, South Korea, and other countries for 10 sessions, becoming a flagship academic conference in the field of antenna and propagation in the Asia-Pacific region.

亚太天线传播会议（APCAP）旨在加强亚太地区天线传播领域学者的交流与互动，是天线与传播领域大型国际学术盛会。首次会议于2012年在新加坡举办，此后已在中国、新西兰、韩国等地成功举办十届，目前已成为亚太地区天线传播领域的旗舰学术会议。

6.The world's first GHWP Institute established at SCUT

全球首个医疗器械法规协调会学院落户华南理工大学

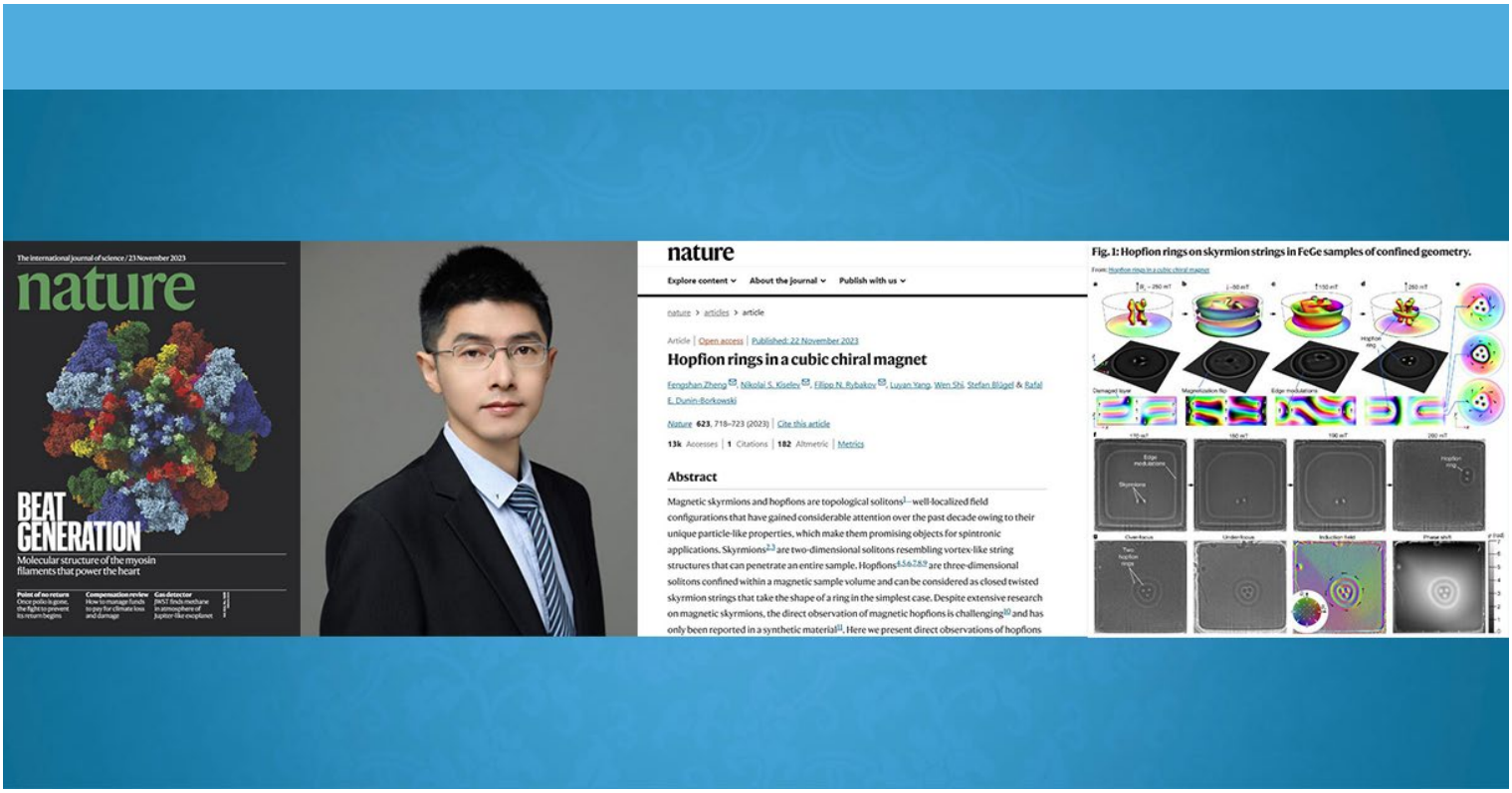
On November 20, SCUT passed the defense for application at the Global Harmonization Working Party (GHWP) and was approved to establish the world's first GHWP institute. As the successor to Asian Harmonization Working Party (AHWP), GHWP is currently the world's only international medical device regulatory and technical exchange platform involving the representatives of regulatory agencies and industries. As its membership expands, it grows in international influence, with members in 33 countries and regions in Asia, the Middle East, North America, South America, and Africa, which account for more than half of the world's population. Nearly 80% of these countries and regions are relevant to the Belt and Road Initiative.

11月20日，华南理工大学通过全球医疗器械法规协调会（GHWP）申报答辩，获批全球首个GHWP学院，是目前全球唯一的由监管机构代表和行业代表共同参与的国际医疗器械法规、技术交流平台，其前身是亚洲医疗器械法规协调会（AHWP）。随着成员数量不断增多，其国际影响力持续提升，成员范围已从亚洲扩展到中东、南北美洲和非洲，覆盖33个国家和地区，涉及国家和地区的人口占全球一半以上，其中近80%的国家和地区位于"一带一路"沿线。

GHWP (Guangzhou) Institute will systematically develop a medical device regulatory collaboration and cutting-edge technology training course system, and build a regulatory capacity enhancement platform. It will invite medical device regulatory departments and industry experts from GHWP member countries/regions on a regular basis to carry out training and discussions, strengthen the publicity, training and application of regulatory laws and regulations in various countries, improve the regulatory capabilities, regulatory systems and expertise of member states, and promote the development of the global medical device industry with regulatory trust and convergence. It ensures patients' access to higher quality and safer medical devices and makes greater contribution to protecting global public health.

GHWP（广州）学院将系统开发医疗器械监管协同及技术前沿培训课程体系，建设监管能力提升平台；定期邀请GHWP成员国/地区医疗器械监管部门及行业专家开展培训研讨，强化各国监管法规的宣传、培训与应用，加快提升成员国监管能力和水平，持续推进成员国监管体系完善和监管能力提升，以监管信赖、监管趋同，促进全球医疗器械

产业发展；确保患者获得更高质量、更安全的医疗器械，为保护和促进全球公众健康作出更大贡献。



7.*Nature* article published! SCUT scholars first observed magnetic hopfion

Nature 发文！华南理工学者首次实验发现磁霍普夫子

On November 22, SCUT research team had a paper entitled "Hopfion rings in a cubic chiral magnet" published in *Nature* for its first discovery of magnetic hopfion in the experiment.

11月22日，华南理工大学科研团队在Nature上发表了题为"Hopfion rings in a cubic chiral magnet"的研究成果，首次实验中发现磁霍普夫子（Hopfion）。

Hopfion was named after the German mathematician Heinz Hopf. The concept of Hopfion can be traced back to the "topological soliton", first proposed by the British physicist Tony Skyrme in 1962. In 2009, scientists first discovered topological solitons in magnets, and named it Skyrmion in honor of Skyrme.

霍普夫子以德国数学家海因茨-霍普夫（Heinz Hopf）的名字命名，其概念由来可追溯到由英国物理学家托尼-斯凯尔姆（Tony Skyrme）在1962年首次提出的"拓扑孤子"。2009年，科学家首次在磁体中发现了拓扑孤子，为了纪念Skyrme，将其称为Skyrmion（斯格明子）。

Using magnetic imaging techniques in transmission electron microscopy and micromagnetic calculations, the research team observed magnetic hopfion coupled to skyrmion strings in cubic iron-germanium alloys and provided an experimental method to create such hopfions. Moreover, this study also provided a unified homotopy classification of skyrmion-hopfion, and explored in-depth the diversity of topological solitons in chiral magnets. This ground-breaking discovery provides a novel concept for the development of magnetic materials, spintronics, and non-traditional computing, and also offers strong support for the design and development of new functional devices.

研究团队利用了透射电子显微镜磁成像技术和微磁学计算，在立方铁锗合金中观察到了与斯格明子弦耦合的霍普夫子，并提供了诱导产生这类霍普夫子的实验方法。此外，本研究也提供了统一的斯格明子-霍普夫子的同伦

（homotopy）分类，并深入探讨了手性磁体中拓扑孤子的多样性。这一突破性发现为未来磁性材料、自旋电子学和非传统计算等领域的发展提供新思路，也为新型功能器件的设计和开发提供了有力支持。

8.Prof. Zhang Bo and Prof. Zhan Zhihui from SCUT selected as 2024 IEEE fellows

华南理工大学张波、詹志辉教授入选2024 IEEE Fellow名单

On November 22, Professor Zhang Bo from the School of Electric Power Engineering and Professor Zhan Zhihui from the School of Computer Science and Engineering of SCUT were selected as fellows of the Institute of Electrical and Electronics Engineers (IEEE) for 2024.

11月22日，华南理工大学电力学院张波教授、计算机科学与工程学院詹志辉教授入选2024美国电子电气工程师学会（Institute of Electrical and Electronic Engineers，IEEE）Fellow 名单。

Founded in 1963, IEEE is an international society of electronic technology and information science engineers and one of the world's largest professional technical societies, with over 400,000 members in over 160 countries and regions. IEEE has more overseas members than in the United States. IEEE Fellow is the highest-level distinction reserved for select IEEE members, and the number of fellows elected does not exceed 0.1% of the total number of members in the current year.

IEEE 成立于 1963 年，是国际性的电子技术与信息科学工程师学会，也是全球最大的专业技术学会之一，如今海外会员的人数已经超过了美国本土，在 160 多个国家和地区拥有超过 40 万会员。IEEE Fellow 为该学会最高等级会员，当选人数不超过当年会员总数的 0.1%。

9.Seven golds and one silver! SCUT had excellent results at 2023 China International College Students' Innovation Competition

7金1银！华南理工在中国国际大学生创新大赛（2023）中获佳绩

The finals of the 2023 China International College Students' Innovation Competition was held at Tianjin University from December 3 to 6. A total of eight SCUT entries entered the finals, which won 7 gold awards and one silver award, putting SCUT fifth among domestic universities and first among Guangdong universities in terms of the number of gold awards.

12月3至6日，中国国际大学生创新大赛（2023）决赛阶段现场比赛在天津大学举办。华南理工大学共有8个项目进入决赛，最终斩获7项金奖和1项银奖，获金奖数量位列国内高校第5位、广东高校第1位。

The 2023 China International College Students' Innovation Competition, sponsored by 12 departments including the Ministry of Education in conjunction with the Tianjin Municipal People's Government, and organized by Tianjin University, received 17.09 million applications for participation from 5,296 institutions in 151 countries and regions and received a total of 4.21 million entries.

中国国际大学生创新大赛（2023）由教育部等12个部门会同天津市人民政府主办，天津大学承办，共有来自国内外151个国家和地区5296所学校的421万个项目、1709万人次报名参赛。

Attached: The award-winning entries in the finals

附：决赛阶段现场比赛获奖项目

Name of the entry 参赛项目名称	Track 赛道	Group 组别	Grand finalist awards 总决赛奖项
Green hydrogen energy for the future – A leader in high-efficiency and low-energy catalytic water electrolysis technology for hydrogen production 绿色氢能，启动未来——高效低能耗催化电解水制氢技术领航者	Higher education track 高教主赛道	Undergraduate creative group 本科创意组	Gold 金奖
Gencon robot – intelligent transportation for	Higher education track	Undergraduate start-up	Gold

building China's strength in transportation 简从机器人——智能交通施工，助力交通强国	高教主赛道	group 本科初创组	金奖
Super-N – A leader in "bringing value out of wastewater" Super-N——"废水增值"引领者	Higher education track 高教主赛道	Graduate creative group 研究生创意组	Gold 金奖
Jizhen Intelligence – A leader in civil air-space-ground integrated autonomous inspection system 极臻智能——民用空天地一体化自主巡检系统领航者	Higher education track 高教主赛道	Graduate growth group 研究生成长组	Gold 金奖
Lyusuan Technology – provide energy efficiency benchmark design solutions for supercomputing clusters 绿算科技——面向超算集群的能效基准设计方案	Industry proposition track 产业命题赛道		Gold 金奖
Haowei New Material – A leader in thermal conductivity and microwave-absorption integrated interface materials 皓微新材——导热吸波一体化界面材料领航者	Industry proposition track 产业命题赛道		Gold 金奖
Keratin peptide – increasing the value of feathers 角肽——让乡村的羽毛飞上天	Honglyu track 红旅赛道	Creative group 创意组	Gold 金奖

10.The 5th Annual Meeting of Chinese American Society of Nanomedicine and Nanobiotechnology held in Guangzhou

第五届中美纳米医学与纳米生物技术年会在广州举行

The 5th Annual Meeting of Chinese American Society of Nanomedicine and Nanobiotechnology (hereinafter referred to as "the conference") was held in Guangzhou from December 8 to 10. With the theme of Convergence for Life, the conference promoted the development of the biomedical field and safeguarded people's health by promoting interdisciplinary integration.

12月8日至10日，第五届中美纳米医学与纳米生物技术年会（以下简称大会）在广州举行。大会以"交叉创造更美生活"为主题，通过促进学科交叉融合，共同推动生物医学领域的发展，服务人民健康。

The conference showcased 120 keynote lectures, 170 invited lectures, 103 oral lectures, 35 rapid fire presentations, and 84 posters. Scholars from China, the United States, Singapore, and the United Kingdom engaged in fruitful discussions, exchanged valuable insights, and explored cutting-edge advancements in the fields of nanobiomedicine, nanopharmaceuticals and therapeutics, nanodiagnostics and treatment, molecular imaging and probes, tissue engineering and regenerative medicine as well as nanobiomaterials. This conference witnessed unprecedented participation levels that truly reflect the robust growth and progress in the field of nanomedicine and nanobiotechnology.

本次大会邀请安排了120个特邀报告、170个邀请报告、103个口头报告、35个快闪报告和84个墙报。来自中国、美国、新加坡和英国的学者们就纳米生物医学、纳米药物与治疗、纳米诊疗、分子影像与探针、组织工程与再生医学和纳米生物材料等领域的前沿成果展开交流研讨、激发新思想、变革新技术。本届大会参会人数创历届年会之最，充分体现出纳米医学与纳米生物技术领域蓬勃发展的良好态势。

11.Promote high-quality Belt and Road cooperation in education, hold the Guangdong-Hong Kong-Macao Greater Bay Area: ASEAN International College Bamboo Design and Construction Competition

推进“一带一路”教育行动高质量发展　粤港澳大湾区•东盟国际高校营造大赛举办

On December 10, the Belt and Road ASEAN Architecture University Innovation and Design Alliance Promotion Conference and the 6th Guangdong-Hong Kong-Macao Greater Bay Area and ASEAN International College Bamboo Design and Construction Competition were held in Guangzhou. With the theme of Bamboo Swing Game, the competition drew more than 200 teams from six competition regions, including China, Thailand, Indonesia and Vietnam. On the day of the event, a forum on bamboo construction was held, where experts from SCUT, Udayana University in Indonesia, Chiang Mai University in Thailand and other universities shared their views on bamboo characteristics, regional craftsmanship, bamboo industry and combination with digital design.

12月10日，共建“一带一路”东盟建筑高校创新设计联盟推进会暨第六届粤港澳大湾区·东盟国际高校营造大赛在广州举办。大赛以"竹秋千游戏"为主题，来自中国、泰国、印尼、越南等6个赛区的200多支队伍参与。活动当天还举办了竹

构主题论坛，来自华南理工大学、印度尼西亚巴厘岛乌达亚纳大学、泰国清迈大学等校的国内外专家，就竹材特性、地域工艺、竹产业和结合数字设计等内容进行现场分享。

The Competition, co-sponsored by SCUT and Nansha Bird Park, has been held for 6 sessions so far, and has become one of the most influential university bamboo construction and design competitions in the world, and its scope of participation extends to universities in the ASEAN region. It is committed to promoting the exchange of innovative and creative high-end talents among universities in the Guangdong-Hong Kong-Macao Greater Bay Area and the ASEAN region, exploring new forms of cooperation, and creating a globally influential academic platform for innovation and creativity.

粤港澳大湾区·东盟国际高校营造大赛由华南理工和南沙水鸟世界联合主办，迄今已成功举办6届，已成为国内外影响力最大、关注度最高的高校原竹建筑建造设计竞赛之一。参赛高校范围拓展至东盟区域，致力于加强粤港澳大湾区及东盟地区高校创新创意高端人才交流，持续探索合作新形式，打造具有世界影响力的创新创意国际学术平台。

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