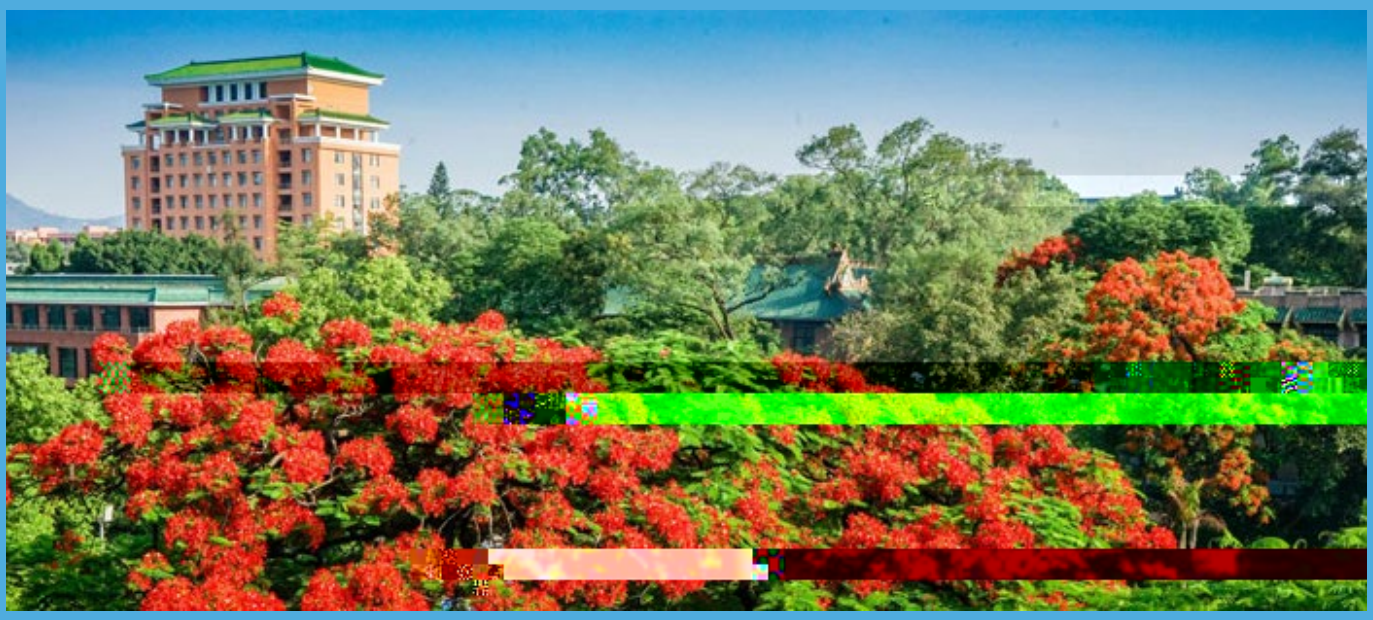
SOUTH CHINA UNIVERSITY OF TECHNOLOGY



On January 27-29, the launch conference of and aggregate science-themed forum were held in Guangzhou. The journal was co-founded by South China University of Technology (SCUT), AIE Institute, and John Wiley & Sons Group. Around 92,000 experts, scholars, and students were attracted to join in this event.

27-29 й e AIE

ж Wiley е ж

9.2

The launch conference was held online to offline. 28 academicians, well-known experts, and scholars in the field of aggregate science shared their major research achievements and engaged in active discussions. The topics involved multifunctional materials including AIE systems, supramolecular materials, magnetic materials, nanomaterials, organic semiconductors, polymer materials, and nucleic acids as well as the applications of these materials in the fields of biomedicine, optoelectronic devices, and environmental protection.

й

й 28

was co-founded by SCUT, AIE Institute, and John Wiley & Sons Group. It aims to become an international multidisciplinary academic journal that covers the cutting-edge achievements of aggregate science and technology in terms of both fundamental science and application research. The journal will publish research articles, reviews, editorials, research highlights, profiles, comments, and essays, etc.

е ж AIE Wiley й

On February 22, the Ministry of Education (MoE) released the 2020 list of national and provincial first-class undergraduate programs. SCUT saw 16 national and 13 provincial first-class undergraduate programs newly included in the list. This increased the total number of national first-class undergraduate programs of SCUT to 40, accounting for 48% of the University's undergraduate programs. In addition, the number of its provincial first-class undergraduate programs has reached 19.

й й 16

13 й

40 й 48%ш 19

Intellectual Property Rights 知识产权	sport Training 运动训练	Business English 商务英语	Communication 传播学
Biotechnology 生物技术	Engineering Mechanics 工程力学	Mechatronic Engineering 机械电子工程	Industrial Design 工业设计
Process Equipment & Control Engineering 过程装备与控制工程	Energy and Power Engineering 能源与动力工程	Transportation Engineering 交通工程	Environmental Engineering 环境工程
Biomedical Engineering 生物医学工程	Food Quality and Safety 食品质量与安全	Industrial Engineering 工业工程	Environmental Design 环境设计

Advertising 广告学	Information and Computing Science 信息与技术科学	Information Security 信息安全	Intelligence Science and Technology 智能科学与技术
Energy Chemical Engineering 能源化学工程	Transportation 交通运输	Safety Engineering 安全工程	Project Management 工程管理
Marketing 市场营销	Human Resources Management 人力资源管理	Logistics Engineering 物流工程	MICE Economy and Management 会展经济与管理
Product Design 产品设计			

Two undergraduate majors, Artificial Intelligence and Financial Technology, have been approved for establishment with enrollment at Guangzhou International Campus in 2021.

Major 专业名称	Code 专业代码	Degree 学位授予门类	Years 修业年限
Artificial Intelligence 人工智能	080717T	Engineering 工学	Four Years 4年
Financial Technology 金融科技	020310T	Economics 经济学	Four Years 4年

In response to the existing challenges of artificial intelligence and the country's demand for artificial intelligence talents, SCUT has been preparing to establish an Artificial Intelligence major. Through innovative learning models, such as integration with international standards, integration of production, teaching and research, interdisciplinary integration, and school-enterprise cooperation, the two new majors will help boost AI talent cultivation, provide the much-needed AI talents in the Greater Bay Area, and facilitate the development of the Greater Bay Area into one of the world's leading S&T innovation and economic development centers.

й й

й

й й

In recent years, SCUT has taken the opportunities provided by the Double First-Class University Plan and the development of Guangzhou International Campus to fully implement the ***Action Plan (2018-2030) of SCUT on First-Class Undergraduate Education***,

emerging industries. By establishing and developing undergraduate majors that meet economic and social development demands, have significant advantages and distinctive characteristics, and align with the University's discipline development plan, SCUT aims to accelerate the cultivation of talents for innovation, creation and entrepreneurship to meet the needs of the new economy and new industries.

й й

е 2018 ñ 2030 ж й й

й

On February 25, a grand gathering was held at the Great Hall of the People in Beijing to mark China's accomplishments in poverty alleviation and honor the model poverty fighters. President Xi Jinping, General Secretary of the Communist Party of China Central Committee and Chairman of the Central Military Commission, presented awards to role models in China's poverty alleviation efforts and delivered a keynote speech. At the meeting, individuals and teams at the forefront of poverty alleviation were also commended. SCUT's Poverty Alleviation Workforce to Kongmei Village, Longjiang Town, Huilai County, was awarded the title of "National Advanced Team for Poverty Alleviation".

25

й е

ж

The Workforce has been engaged in targeted poverty alleviation measures in the new era since 2016. Through the "Five Ones of Party Building Education" project, it developed plans for Kongmei Village to become a model village for the new countryside and to improve its landscape, as well as helping to

improve the village appearance, culture and tourism. Since the launch of the poverty alleviation initiative, the Workforce has made great efforts in exploring the cultural connotation of the Kongmei Village. They created the brand Kongzimei for products like rice, mung bean pastry as well as cultural and creative tourism. They also organized poverty alleviation product exhibitions for two consecutive years to promote consumption-driven poverty alleviation. By doing so, the income of both poor households and the Village increased and a SCUT model for poverty alleviation formed.

2016 й

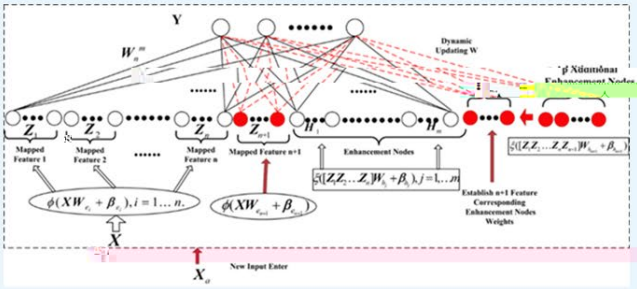
й й

й й й

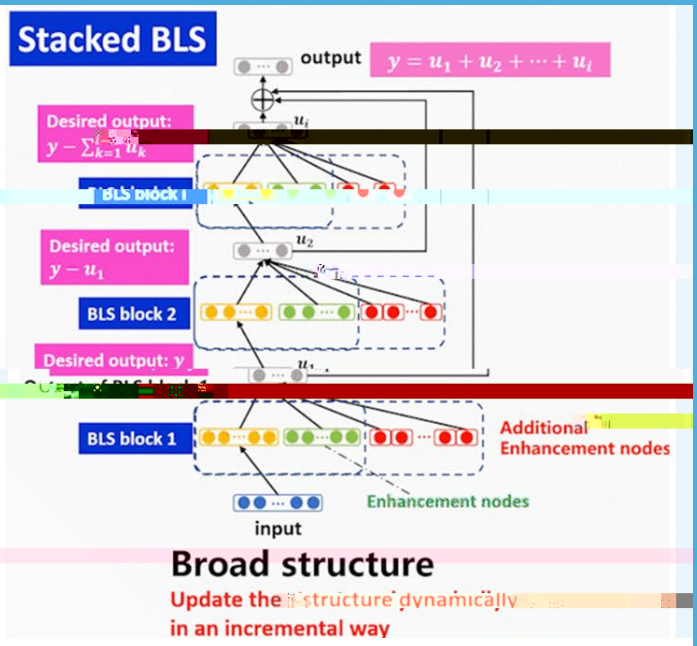
й й й й

PERFORMANCE COMPARISON WITH SELECTED STATE-OF-THE-ART DEEP METHODS

Algorithms	CIFAR-10	CIFAR-100	SVHN
Capsule Net [56]	89.3%	-	95.7%
GDCNN [57]	89.23%	66.7%	-
Meta [illegible]	[illegible]	-	-
CGap [59]	93.59%	73%	96.25%
SReluDCNN [60]	93.02%	70.9%	-
Stacked CCFBLS	**94.78%**	**88.56%**	**97.12%**



Dynamic updated procedures of Broad Learning System



On January 6, the Stacked Broad Learning System (BLS) with a subversive combination of depth and breadth designed by Professor Chen Junlong of SCUT and his team to dynamically expand neurons and their number of layers was released. Through a single-layer structure and the pseudo-inverse method, the system can flexibly change the breadth and depth of the network structure through stacking and obtain an optimal solution of the model. Therefore, it can be dynamically adjusted for different tasks to improve the flexibility, adaptability and generalization ability of the model. Meanwhile, it can save a lot of computing resources and greatly shorten computing time. In practical applications, the system allows unlimited prospects for edge computing with intelligent learning functions at the edge.

6 й

e Stacked BLS ж й й й

й й й

й й

The achievement of Professor Chen Junlong's team is based on the Broad Learning System (BLS) they put forward in 2018. Their paper in 2018 was also awarded the Best Journal Paper of IEEE Transactions on Neural Networks and Learning Systems 2021.

й 2018 е Broad Learning System й BLS ш 2018
IEEE Transactions on Neural Networks and Learning Systems ж

Produced by: International Office, SCUT
Advisor: Dr. Li Weiqing, Vice President
Chief Editor: Yao Min, Director, International Office
Deputy Chief Editor: Huang Fei, Deputy Director, International Office
Copy Editors: Chen Wei, Yu Shaohua, Zhang Jihong
Proofreader: Paul Winning
Designer: JOYO Advertising
Issue Date ч March й

ч
ч
ч
ч
ч
ч Paul Winning
ч
ч 3