地址：深圳市南山区学苑大道南山智园 A7 栋 9-10 楼
邮政编码：518071
计算机系主页：http://cse.sustc.edu.cn/cn

Address: 9th and 10th floors, Building A7, Nanshan
i-Park, Xueyuan Road, Nanshan District, Shenzhen City,
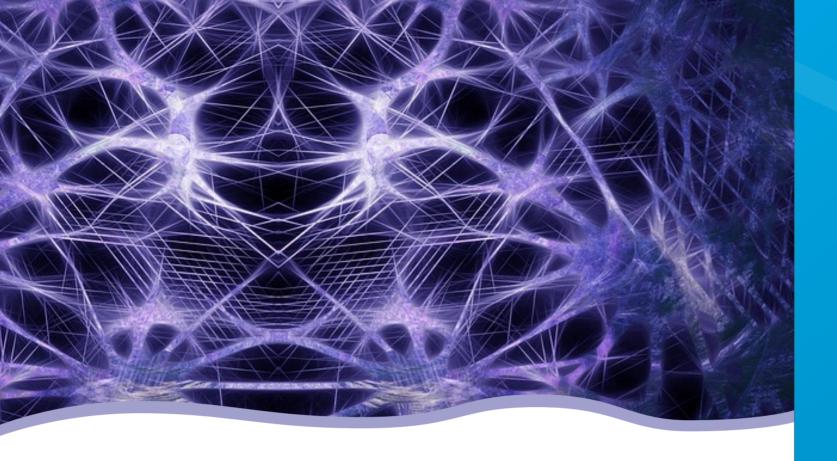China, 518071
Web: http://cse.sustc.edu.cn/en

南方科技大学
SOUTHERN UNIVERSITY OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

计算机科学与工程系

目录
CONTENT

计算机系概览
ABOUT THE DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

计算机科学与工程系成立于 2016 年 2 月，是南方科技大学最年轻的院系之一，培养计算机科学与工程专业的本科、硕士、博士研究生。

计算机科学与工程系现有全职讲座教授 5 名、教授 1 名、副教授 2 名、助理教授 6 名，其中包括"国家千人计划"特聘专家 2 名、IEEE 会士 3 名、IET 会士 1 名，全部具有博士学位和在世界知名大学从事多年科研或教学的经验。在今后的三年内，计算机科学与工程系计划增长到 50 名全职长聘教师，立志成为在国际上有一定影响的研究型院系。在培养研究生方面将坚持当前的国际化培养模式，与国际名校联合培养博士生，使学生既能与国外的教育和生活环境接轨，又不与国内的环境脱轨，从而提高将来职业进一步发展的选择范围。

计算机科学与工程系的主要研究方向有人工智能、数据科学、自治和感知系统、计算机系统与网络、计算理论。具体内容包括机器学习、计算智能、认知机器人、大数据分析与云计算、物联网、信息物理融合系统、下一代智能无线网络、智能认知传感、可移动、可穿戴无线传感器 - 执行器系统、服务计算、基于搜索的软件工程、网络安全、密码学及应用、智能普适计算等。

The Department of Computer Science and Engineering was established in February 2016, and is one of the youngest departments in SUSTech. We offer BSc, MSc, and PhD degree education in Computer Science and Engineering.

Current faculty members in the Department of Computer Science and Engineering include 5 chair professors (2 national thousand-talent-program scholars, 3 IEEE fellows, and 1 IET fellow), 1 professor, 2 associate professors and 6 assistant professors. All faculty members hold doctoral degrees and have had overseas teaching and research experience in prestigious universities before joining the Department. The Department is expected to grow aggressively to 50 tenure-track professors in the next three years and sets itself an ambitious goal of becoming an internationally known and research-intensive department.

The five research directions in the Department include Artificial Intelligence, Data Science,Autonomous and Cognitive Systems, Computer Systems and Networks, and Theoretical Computer Science. The research topics cover machine learning, computational intelligence, cognitive robotics, big data analytics and cloud computing, internet of things, future intelligent wireless network, smart cognitive sensing, mobile and wearable wireless sensor/actuator systems, service computing, search-based software engineering, network security,cryptography, intelligent pervasive computing, etc.

系主任寄语
CHAIRMAN'S MESSAGE

在计算机科学与技术突飞猛进，市场竞争激烈残酷的背景下，南科大计算机科学与工程系应运而生。一年间，不负厚望的计算机系已然具备一支高水平国际化的师资队伍，势必在技术不断革新的过程中留下浓墨重彩的一笔。在此，我们感谢社会各界对我系的关注和支持，热忱开放的计算机系愿与更多的智慧同行，通过科技创造未来，依托技术改变世界！

—— 系主任姚新教授

With rapid development in computer science and technology and a highly competitive-computing industry, the Department of Computer Science and Engineering (Department of CSE), SUSTech, was borned. Within one year, the Department of CSE has attracted a team of talented research leaders from around the world. The department is riding on the current wave of technology development and engaging in cutting edge research. We hereby express our gratitude to all those who have supported us in various ways. Our department is open minded and full of passion for education and research. We look forward to collaborating with many more people in years to come to create the future and change our world through technology innovations!

—— Prof. Xin YAO, Head of CSE

THEODOROPOULOS, Georgios

讲座教授
博士（曼彻斯特大学）
大数据计算；计算机系统；分布式模拟技术

Chair Professor
PhD (University of Manchester)
Big Data Computing;Computer Architectures and Systems;Distributed and Parallel Simulation

史玉回
SHI, Yuhui

讲座教授
美国电气电子工程师学会会士
博士（东南大学）
头脑风暴优化算法；粒子群优化算法；群体智能；演化计算；机器学习；计算智能；人工智能；数据科学；智能系统

Chair Professor
IEEE Fellow
PhD (Southeast University)
Brain Storm Optimization Algorithms; Particle Swarm Optimization Algorithms; Swarm Intelligence; Evolutionary Computation, Machine Learning; Computational Intelligence; Artificial Intelligence; Data Science; Intelligent System

ISHIBUCHI, Hisao

讲座教授
美国电气电子工程师学会会士
日本学术振兴会奖（2007 年）
博士（大阪府立大学）
计算智能；演化多目标优化；演化机器学习；模糊系统；语言数据挖掘；演化游戏

Chair Professor
IEEE Fellow
2007 JSPS Prize Winner
Editor-in-Chief of IEEE Computational Intelligence Magazine
PhD (Osaka Prefecture University)
Computational Intelligence; Evolutionary Multi-objective Optimization; Evolutionary Machine Learning; Fuzzy Systems; Linguistic Data Mining; Evolutionary Games

姚 新
YAO, Xin

讲座教授、系主任
博士（中国科学技术大学）
千人计划专家
长江学者
美国电气电子工程师学会会士
IEEE 计算智能学会演化计算先驱奖
英国皇家学会沃尔夫森杰出研究奖
IEEE 计算智能学会主席（2014-15）
IEEE 演化计算会刊主编（2003-08）
神经计算；演化计算；机器学习；大数据分析；自适应优化；基于搜索的软件工程

Chair Professor and Chairman
The Thousand Talents Scholar
The Chang Jiang Scholar
IEEE Fellow
IEEE Computational Intelligence Society Evolutionary Computation Pioneer Awardee
Royal Society Wolfson Research Merit Award holder
President (2014-15) of IEEE Computational Intelligence Society
Editor-in-Chief (2003-08) of IEEE Transactions on Evolutionary Computation
PhD (University of Science and Technology of China)
Evolutionary Computation; Computational Intelligence; Machine Learning; Data Science; Meta-heuristic Optimisation; Search-based Software Engineering

杨双华
YANG, Shuanghua

讲座教授
千人计划专家
英国工程技术学会会士
博士（浙江大学）
物联网；信息物理融合系统；无线传感网络；安全关键系统；数据科学

Chair Professor
The Thousand Talents Scholar
Institute of Engineering and Technology (IET) Fellow
PhD (Zhejiang University)
Internet of Things;Cyber-Physical Systems; Wireless sensor networks;Safety critical systems;Data science

唐 珂
TANG, Ke

教授
IEEE 计算智能学会杰出青年奖
英国皇家学会牛顿高级学者
博士（南洋理工大学）
计算智能；演化计算；机器学习

Professor
IEEE CIS Outstanding Early Career Awardee
Royal Society Newton Advanced Fellow
PhD (Nanyang Technological University)
Computational Intelligence; Evolutionary Computation; Machine Learning

郝 祁
HAO, Qi

副教授
博士（杜克大学）
智能感知与机器学习；智能无人系统；智能人机界面

Associate Professor
PhD (Duke University)
Intelligentsensing and machine learning; intelligent unmanned systems; intelligent human-machine interfaces

SUSTech Southern University of Science and Technology

骆宗伟
LUO, Zongwei

副教授
博士（佐治亚大学）
大数据与金融科技；交互与认知计算；服
务与云计算

Associate Professor
PhD (University of Georgia)
Big data and Finance Technolo gy;
Interactive and Cognitive Computing;
Service and Cloud Computing

张 进
ZHANG, Jin

助理教授
博士（香港科技大学）
可穿戴计算与移动健康；下一代无线网络；认知
无线网络与频谱动态管理；网络经济学

Assistant Professor
PhD (Hong Kong University of Science and
Technology)
Wearable computing and mobile healthcare;
Next-generation wireless networks; Cognitive
radio networks and dynamic spectrum
management; Network economics;

唐 博
TANG, Bo

助理教授
博士（香港理工大学）
荷兰 CWI、微软亚洲研究院访问学者
数据库；大数据管理与分析；商业智能

Assistant Professor
PhD (The Hong Kong Polytechnic University)
Visiting Researcher at Centrum Wiskunde &
Informatica, Microsoft Research Asia
Database; Data Management and Analytics; Business
Intelligence

FAROULT, Stéphane

教学副教授
硕士（巴黎中央理工学院）
曾任职于 IBM, 甲骨文等公司

Associate Teaching Professor
Ingénieur de l'Ecole Centrale de Paris
(EcoleCentrale Paris)
Working experiences in IBM, Oracle, etc.

王 琦
WANG, Qi

助理教授
德国洪堡学者
博士（香港科技大学）
密码学及应用；纠错编码；组合设计；序列
设计

Assistant Professor
Alexander von Humboldt Fellow
PhD (Hong Kong University of Science and
Technology)
Cryptography; Coding theory; Combinatorial
designs; Sequence design

张煜群
ZHANG, Yuqun

助理教授
博士（德克萨斯大学奥斯汀分校）
软件工程；服务计算

Assistant Professor
PhD (University of Texas at Austin)
Software engineering; Services computing

TANABE, Ryoji

研究助理教授
博士（东京大学）
优化；演化计算；计算智能

Research Assistant Professor
PhD (The University of Tokyo)
Optimization; Evolutionary Computation;
Computational Intelligence

袁 博
YUAN, Bo

研究助理教授
博士（中国科学技术大学）
计算智能；电子设计自动化

Research Assistant Professor
PhD(University of Science and Technology of
China)
Computational Intelligence; Electronic Design
Automation

SUSTech Southern University of Science and Technology

本科生专业设置

计算机科学与技术

核心课程：计算机导论、计算机编程基础、数据结构与算法分析、数字逻辑、嵌入式系统与微机原理、人工智能、计算机网络、数据库原理、面向对象分析与设计、操作系统、软件工程、智能机器人等

Major in Computer Science and Engineering

Core courses: Introduction to Computer Science, Computer Programming Fundamentals, Data Structures and Algorithm Analysis, Digital Logic, Embedded Systems and Microcomputer Principles, Artificial Intelligence, Computer Networks, Database Principles, Object-oriented Analysis and Design, Operating Systems, Software Engineering, Intelligent Robotics, etc.

研究生培养

计算系科学与工程系与国内外多所高校展开联合培养硕士和博士，目前合作培养的高校有：哈尔滨工业大学、香港科技大学、香港大学、新加坡国立大学、伯明翰大学、华威大学、利兹大学、悉尼科技大学等。

Department of Computer Science and Engineering offers PhD programs jointly developed with some of the best technological universities in the world, including Harbin Institute of Technology, Hong Kong University of Science and Technology, the University of Hong Kong, National University of Singapore, University of Birmingham, University of Warwick, University of Leeds, University of Technology Sydney, etc.
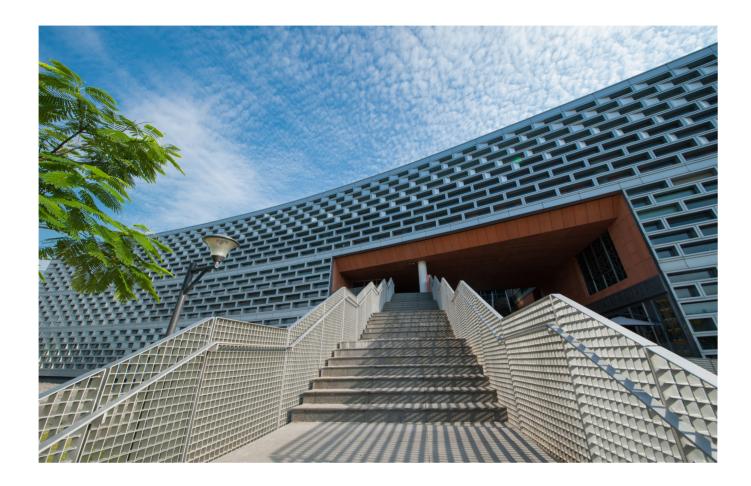
创知 创新 创业
Research, Innovation and Entrepreneurship

图为计算机系张进老师

无线网络与移动计算研究中心
Wireless networking and mobile computing research center

- 毫米波通信与智能感知平台
- 可见光与 WiFi 融合定位平台
- 可穿戴生命体征监测平台

- Millimeter wave communication and intelligent sensing platform
- Visible light and WiFi heterogeneous localization platform
- Wearable vital sign monitoring platform

优化与学习研究中心
Optimization and Learning Laboratory (OPAL Lab)

- 智能物流系统
- 演化计算与群体智能
- 机器学习（尤其是概念漂移的在线学习，非平衡类分类学习，集群学习）

- Smart Logistics
- Evolutionary Computation and Swarm Intelligence
- Machine Learning(esp. online learning with concept drift, class imbalance learning, ensemble learning)

大数据与金融科技研究中心
Big Data and Finance Technology Research Center

- 实时获取多种 3D 辅助设计软件数据内容的虚拟设计协同工作平台
- 虚拟现实展示交互工作台

- DVS3D(Design & Virtual Reality & Simulation)
- G-Bench

智能物联网与信息物理融合系统
Intelligent Internet of Things and Cyber-Physical Systems (IoT/CPS)

智能无人机研究中心
Intelligent UAV Research Center

- 无人机
- 无人机测试平台与地面工作站

- Unmanned aerial vehicles (UAVs)
- UAV testing platforms and ground workstations

智能无人系统与感知网络实验室
Intelligent Unmanned Systems & Sensor-Actuator Networks Laboratory

- 惯性传感器测试平台
- 差分 GPS 测试平台
- 惯性动捕与光学动捕平台

- Inertial sensor testing platform
- Differential GPS testing platform
- Inertial and optical motion capture platforms

人工智能创客平台
Artificial Intelligence Maker Platform

- 深度学习服务器
- 超高清相机阵列与显示
- 智能飞行器与机器人系统
- 混合现实

- Deep learning servers
- Ultra-high-definition camera arrays and displays
- Intelligent UAV and robot systems
- Mixed reality systems

中英智能科学研究院
China-UK Artificial Intelligence Research Institute

- 致力于世界顶尖人工智能研究
- 研究项目由科研人员推动
- 向访问序列和终身制序列研究人员提供有竞争力的经费（包括薪资和研究经费）
- 同时向中国和英国以外的研究人员和博士生开放

- A newly set-up research institute devoted to world class research in artificial intelligence
- Research programmes and projects are driven by researchers
- Significant funding (including salaries and research funding) will be provided to both visiting and tenure-track researchers
- Open to researchers and PhD students from outside China and UK

深圳市计算智能重点实验室
Shenzhen Key Laboratory of Computational Intelligence

- 大规模全局优化
- 自适应优化与学习算法
- 低能耗计算智能算法

- Large Scale Global Optimization
- Self-adaptive Optimization and Learning Algorithms
- Energy efficient computational intelligent algorithms

南方科技大学智能交通中心
SUSTech Intelligent Transportation Centre

- 专注于研发自主客车
- Focus on autonomous buses

SUSTech Southern University of Science and Technology

姚 新
YAO, Xin

2016 年汤森路透全球高被引学者（全球 127 名计算机领域学者之一）
谷歌学术中 H 指数 84，总被引用量超过 35,000
2017 年 IEEE Transactions on Evolutionary Computation 杰出论文奖
2016 年 IEEE Transactions on Evolutionary Computation 杰出论文奖
2011 年 IEEE Transactions on Neural Networks and Learning Systems 杰出论文奖
2010 年 IEEE Transactions on Evolutionary Computation 杰出论文奖
2001 年 IEEE Donald G.Fink Prize 最佳论文奖

Thomson Reuters highly cited researcherin 2016 (one of 127 scholars in computer science globally)
H-index in Google Scholar is 84, total citation over 35,000
IEEE Transactions on Evolutionary Computation Outstanding Paper Award in 2017
IEEE Transactions on Evolutionary Computation Outstanding Paper Award in 2016
IEEE Transactions on Neural Networks and Learning Systems Outstanding Paper Award in 2011
IEEE Transactions on Evolutionary Computation Outstanding Paper Award in 2010
IEEE Donald G.Fink Prize Best Paper Award in 2001

杨双华
YANG, Shuanghua

2010 年英国测量与控制学会（InstMC）霍尼韦尔（Honeywell）奖
2006 年英国测量与控制学会会士（InstMC Fellow）
2014 年被英国拉夫堡大学授予象征"终身成就奖"的科学博士学位（DSc）
2014 年英国高校研究评估中计算机与信息学科类非综述类论文引用次数最高的论文作者之一
2005 年台湾国际 DSP 展大赛创造奖

Honeywell Prize from InstMCin 2010
Fellow of Institute of Measurement and Control, UK, 2006
Awarded a Doctor of Science degree, a higher doctorate degree, from Loughborough University, 2014, to recognize his scientific achievement in his academic career
One of the authors with the highest citation in the panel of computer and informatics in REF2014, UK
The winner of the Creativity Award at the International Exhibition Contest on DSP (Digital Signal Processing) Creative Designs, 2005

THEODOROPOULOS, Georgios

2014 年 ACM Best of Computing Paper Award
2011 年 IEEE Distributed Simulation and Real-Time System 最佳论文奖
2005 年 SISO European Simulation Interoperability Workshop 最佳论文奖
2003 年 SISO European Simulation Interoperability Workshop 最佳论文奖

ACM 2014 Best of Computing Paper Award
IEEE Distributed Simulation and Real-Time System Best Paper Award in 2011
SISO European Simulation Interoperability Workshop Best Paper in 2005
SISO European Simulation Interoperability Workshop Best Paper in 2003

ISHIBUCHI, Hisao

ACM GECCO2017 最佳论文奖
2011 年 FUZZ-IEEE 最佳论文奖
2009 年 FUZZ-IEEE 最佳论文奖
2007 年 GECCO 一等奖

ACM GECCO2017 Best Paper Award
FUZZ-IEEE 2011 Best Paper Award
FUZZ-IEEE 2009 Best Paper Award
GECCO 2007 Competition First Prize

唐 珂
TANG, Ke

2018 年度 IEEE 计算智能学会杰出青年奖
2015 年中国电子学会自然科学一等奖
2012 年教育部新世纪优秀人才
2011 年教育部自然科学二等奖

2018 IEEE Computational Intelligence Society Outstanding Early Career Award
2015 Natural Science Award (1st prize) of The Chinese Institute of Electronics
2012 New Century Excellent Talent, Ministry of Education of China
2011: Natural Science Award (2nd prize) of Ministry of Education of China

郝 祁
HAO, Qi

两篇会议论文获得 IEEE 智能系统多传感器融合国际会议"最佳论文"入围奖（2016 年）
美国国家科学基金 - 基于智能热传感器网络的行人目标辨识与追踪
美国国家科学基金 - 面向行为生物特征辨识的认知感知技术

Two conference papers nominated for IEEE International Conference on Multisensor Fusion and Integration for Intelligent Systems best paper award in 2016
USNSF-Intelligent pyroelectric sensor networks for human walkers tracking and recognition
USNSF-Cognitive sensing for human behavioral biometrics

史玉回
SHI, Yuhui

谷歌学术上有五篇各超过三千次引用的著作，仅此五篇就总共有 32,000+ 次引用

5 publications in Google Scholar with over 3,000 citations each, summing up to 32,00+ citations with these 5 publications

SUSTech Southern University of Science and Technology

骆宗伟
LUO, Zongwei

IEEE 国际电子商务工程会议最佳论文奖
IEEE RFID-TA 最佳论文奖提名

IEEE ICEBE Best Paper Award
IEEE RFID-TA Best Paper Award Nominee

张 进
ZHANG, Jin

IEEE Globecom 最佳论文奖
IEEE Globecom Best Paper Award

王 琦
WANG, Qi

国家自然科学基金 PI: 代数操纵检测码及
其应用
国家自然科学基金 PI: 非线性函数原像集
和像集的组合性质

PI: Algebraic manipulation detection code
and its applications (NSFC)
PI: Combinatorial properties of domain
and codomain for nonlinear functions (
NSFC)

张煜群
ZHANG, Yuqun

在 IEEE TMC, SCC 等顶尖期刊和会议发
表论文十余篇
Over 10 publications in journals and
conferences like IEEE TMC, SCCetc.

TANABE, Ryoji

IEEE CEC2014 实时参数单目标优化竞赛
获奖者
ACM GECCO2017 最佳论文提名奖

ACM GECCO2017 Best Paper Award
Candidate
Winner of the IEEE CEC2014 Competition
on Real-Parameter Single Objective
Optimization

袁 博
YUAN, Bo

2014 年度中科院院长奖
2014 President Award of Chinese
Academy of Sciences

SUSTech

计算机科学与工程系积极投身于计算机领域的前沿研究，参与国际高层次学术交流，每年开展计算机科学与工程系前沿讲座和学术报告超过 50 场，积极举办计算机领域国际会议、研讨会等，并大力促进学术交流互访。

2017 年重要学术活动

- 国际交叉学科论坛计算机科学与工程系分论坛
- 南方科技大学计算机智能与网络校企科技交流会
- 南科大 - 德州大学达拉斯分校先进计算机科学研究联合论坛
- 第十一届模拟演化与学习国际会议（SEAL）（将于 2017 年 11 月 10 日至 13 日举行）
- 2017 年组合、编码与密码国际研讨会（将于 2017 年 12 月举行）
- 中国工程院院士李国杰教授及 IEEE 和 ACM Fellow 高光荣教授来访交流
- 美国卡耐基梅隆大学计算机科学学院院长 Andrew Moore 教授来访交流
- 加拿大皇家科学院主席 Jamal Deen 教授来访交流

图为卡耐基梅隆大学计算机科学学院院长 Andrew Moore 教授一行来访计算机系

The Department of Computer Science and Engineering strives for cutting-edge research in computer science, and participation in high-level international academic exchanges. There are over 50 frontier seminars and academic talks within the department each year. The Department of CSE actively organizes international conferences and seminars, and enhances the academic communication through mutual visits. Some examples:

HIGHLIGHTED ACADEMIC ACTIVITIES IN 2017

- SUSTech Global Scientists Forum, Session on Computer Science and Engineering
- SUSTech Computer Intelligence and Network Technology Exchange
- SUSTech-UT Dallas Joint Workshop on Recent Advances in Computer Science and Engineering
- The 11th International Conference on Simulated Evolution and Learning (SEAL) 2017 (November 10-13, 2017)
- The International Workshop on Combinatorics, Coding and Cryptography (December, 2017)
- Chinese Academy of Engineering academician Prof. Li Guojie and IEEE and ACM Fellow Prof. Gao Guangrong visited the Department of CSE
- Prof. Andrew Moore, Head of School of Computer Science from Carnegie Mellon University visited our Department of CSE
- Prof. Jamal Deen, the President of Academy of Science, Royal Society of Canada visited the Department of CSE

计算机科学与工程系 2017 届 16 名本科毕业生中，已有 10 位学生确定工作去向，包括腾讯、华为、中兴通讯、大疆、追一科技等知名企业。另有 3 位学生拿到多个国外知名大学的录取通知书，包括剑桥大学、宾夕法尼亚大学、纽约大学、亚利桑那州立大学和南科大 - 伯明翰大学联培项目。

学生获奖情况

在计算机科学与工程系张进教授的指导下，本科生魏净同学的论文 "Smartphone-based Non-contact Respiration Rate Detection Using Single-frequency Ultrasound Signal" 获得国际学术会议 IEEE-EMBSMedical Devices and Biosensors (MDBS' 2017) 最佳学生论文奖一等奖。

在计算机科学与工程系郝祁教授的指导下，由计算机系博士生和若干本科生共同完成的两篇论文入围国际学术会议 2016 IEEE International Conference on Multisensor Fusion and Integration for Intelligent Systems 的最佳论文奖。

2014 级计算机系学生葛林飞、万昌龙和初畅在计算机科学与工程系王琦教授的指导下，获得 ASC17 世界大学生超级计算机竞赛二等奖。

计算机系 13 级本科生栗程以及 14 级本科生朱志凯在计算机系郝祁教授的指导下，参加深圳创客活动，获得深圳科创委个人创客项目，各获得 10 万元的项目资助。

计算机系本科生队伍 (20 人) 在郝祁教授的指导下，参加 RoboMasters 全国大学生机器人大赛，于 2015 年及 2016 年分别获得赛区三等奖、二等奖。

Among 16 graduates from the Department of Computer Science and Engineering in 2017, 10 have received offers from well-known IT companies such as Tencent, Huawei, ZTE, DJI, Zhuiyi Scientific, etc. In addition, 3 students received PhD offers from leading overseas universities, including University of Cambridge, University of Pennsylvania, New York University, Arizona State University, as well as SUSTech-Birmingham joint program.

Student Awards

Under the supervision of Prof.Jin Zhang, undergraduate student WEI, Jing's paper "Smartphone-based Non-contact Respiration Rate Detection Using Single-frequency Ultrasound Signal", won the best student paper award first prize, in the international conference IEEE-EMBSMedical Devices and Biosensors (MDBS' 2017).

Under the supervision of Prof.Qi Hao, two papers by CSE PhD and undergraduate students were awarded the Best Paper Prize by the 2016 IEEE international Conference on Multi-sensor Fusion and Integration for linear Systems.

Undergraduate students Ge Feilin, Wan Changlong and Chu Chang from our department won the second prize in ASC17 under the supervision of Prof.Qi Wang.

Undergraduate students Li Cheng, Zhu Zhikai, in 2013 and2014 respectively, under the supervision of Prof.Qi Hao, participated in Shenzhen Maker Activity and won a solo-making project ofRMB100,000 from Shenzhen Science and Technology innovation Association.

Our undergraduate students formed a team (20 people) and participated in the National RoboMasters Competition, under the supervision of Prof. Qi Hao. They won the third (2015) and the second prizes (2016) in their division.