



浙江大学
信息学部
Faculty of Information Technology
Zhejiang University



Annual Report 2018

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浙江大学信息学部
FACULTY OF INFORMATION TECHNOLOGY,
ZHEJIANG UNIVERSITY



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学部概况

INTRODUCTION TO FIT

信息学部涵盖了光电科学与工程学院、信息与电子工程学院、控制科学与工程学院、计算机科学与技术学院、软件学院、生物医学工程与仪器科学学院。学部共有13个本科专业，9个一级学科，其中光学工程、控制科学与工程、计算机科学与技术、软件工程入选国家“双一流”建设学科名单，这四个学科在全国第四轮学科评估中被评为A+学科。学部拥有3个国家重点实验室，1个国家工程实验室，3个国家工程（技术）研究中心，共有25个研究所，主要开展信息领域科学和工程技术问题的创新研究。

Faculty of Information Technology (FIT) of Zhejiang University (ZJU) comprised of six colleges, namely College of Optical Science & Engineering (COSE), College of Information Science and Electronic Engineering (ISEE), College of Control Science and Engineering (CSE), College of Computer Science and Technology (CCST), College of Biomedical Engineering & Instrument Science (BME) and College of Software Technology (CST). Currently, FIT has 13 undergraduate programs and 9 primary disciplines, in which there are 4 disciplines both assessed as A+ by MOE and constructed as National “Double First-Class” discipline, they are Optical Engineering, Control Science and Engineering, Computer Science and Technology and Software Engineering, There are 3 State Key Laboratories, 1 National Engineering Laboratory, 3 National Engineering Research Centers, 25 research institutes, to devote to the innovation research on information science and technology.



主任：鲍虎军
Dean: Bao Hujun



副主任：陈积明
Vice Dean: Chen Jiming

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学部机构

Organization



学术委员会

- 主任 鲍虎军 ● 副主任 刘旭
- 委员 卜佳俊 尹建伟 任奎 庄越挺 刘向东
刘承 孙优贤 孙凌云 李尔平 李劲松
杨建义 余锋 张朝阳 陈刚 陈伟球
陈纯 陈积明 陈耀武 邵之江 金仲和
赵民建 章献民 熊蓉 潘云鹤 戴道铎

Academic Committee

- Director Bao Hujun Vice Director Liu Xu
- Committee members
- | | | |
|---------------|----------------|----------------|
| Bu Jiajun | Yin Jianwei | Ren Kui |
| Liu Cheng | Zhuang Yueting | Liu Xiangdong |
| Shao Zhijiang | Sun Youxian | Sun Lingyun |
| Zhang Xianmin | Li Jinsong | Yang Jianyi |
| Yu Feng | Chen Gang | Zhang Zhaoyang |
| Chen Weiqiu | Jin Zhonghe | Chen Chun |
| Chen Jiming | Chen Yaowu | Li Erping |
| Zhao Minjian | Xiong Rong | Pan Yunhe |
| Dai Daoxin | | |

学术交流与合作专门委员会

- 主任 李尔平 ● 副主任 陈积明 陈红胜 任奎
- 委员 刘东 刘清君 许超 巫英才 余官定
沙威 张明璋 钱骏 高云君 程鹏

Academic Exchange and Cooperation Committee

- Director Li Erping
- Vice Director Chen Jiming Chen Hongsheng Ren Kui
- Committee members
- | | | | |
|-------------|-------------|---------------|------------|
| Liu Dong | Liu Qingjun | Xu Chao | Wu Yingcai |
| Yu Guanding | Sha Wei | Zhang Mingwei | Qian Jun |
| Gao Yunjun | Cheng Peng | | |

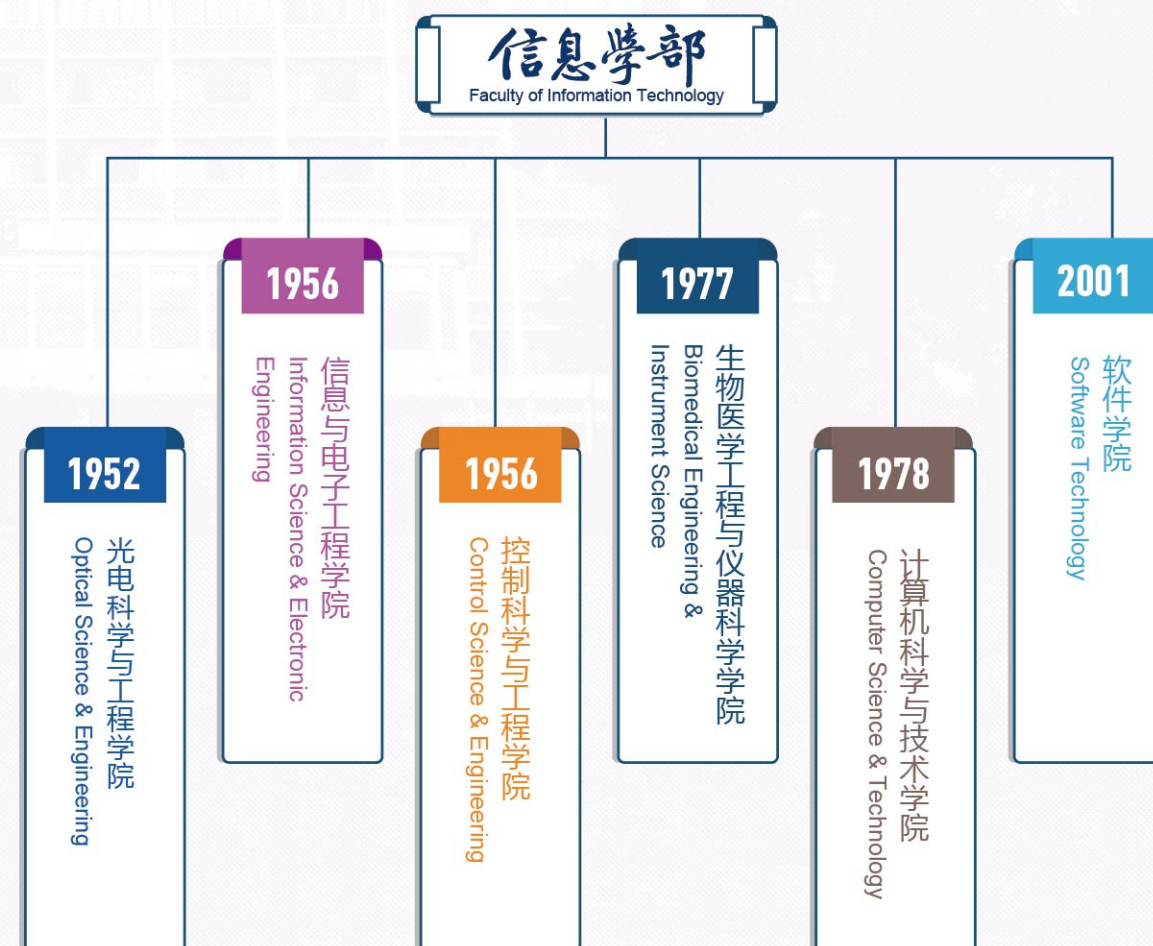
学位评定委员会

- 主任 陈积明 ● 副主任 何钦铭
- 委员 王小松 刘清君 许正平 孙守迁 李春光
吴飞 何湘宁 陈红胜 邵之江 林兰芬
郑臻荣 赵道木 黄志尧 黄海 童利民

Academic Degrees Committee

- Director Chen Jiming Vice Director He Qinming
- Committee members
- | | | | |
|----------------|---------------|--------------|--------------|
| Wang Xiaosong | Liu Qingjun | Xu Zhengping | Huang Zhiyao |
| Sun Shouqia | Li Chunguang | Tong Limin | He Xiangning |
| Chen Hongsheng | Shao Zhijiang | Wu Fei | Lin Lanfen |
| Zheng Zhenrong | Zhao Daomu | Huang Hai | |

学部学院 COLLEGE OF



师资队伍

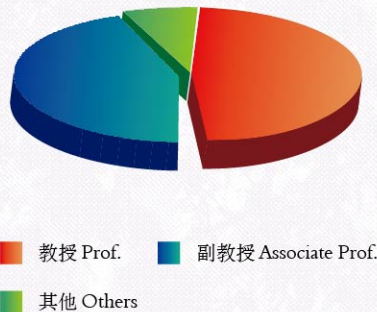
Talent Team

学部教职员工720人，其中教学科研岗440人，教授200人，副教授171人。有中国工程院院士4人，中国科学院院士1人，“万人计划”入选者18人（科技创新领军人才9人、青年拔尖人才8人，教学名师1人），教育部长江学者13人（其中特聘教授12人，青年长江学者1人），国家百千万人才工程入选8人，教育部高校教学名师1人，国家杰出青年基金获得者18人，优秀青年基金获得者12人，浙江省特级专家7人。国家自然科学基金创新群体2个，教育部创新团队2个。

2018年新增“万人计划”科技创新领军人才3人、青年拔尖人才2人、教学名师1人，国务院政府特殊津贴专家3人，国家杰出青年基金获得者1人，国家优秀青年基金获得者2人。8位教师晋升教授，7位教师晋升副教授。

FIT has 720 full-time faculty and staff members, including 440 faculty members, among which 200 are full professors and 171 are associate professors. There are 4 members of Chinese Academy of Engineering and 1 member of Chinese Academy of Sciences, 18 talents of National High-level Talents Special Support Program (9 Sci&Tech Innovation Leaders, 8 Youth Talents, 1 Outstanding Teacher), 13 professors of “Cheung Kong Scholar Program”, 8 professors of National Bai-Qian-Wan Talent Project, 1 outstanding teacher in universities of MOE, 18 National Distinguished Youth Science Foundation Fellows, 12 National Excellent Youth Science Foundation Fellows, 7 Zhejiang Province Outstanding Experts, 2 Innovative Research Groups of NSFC and 2 Innovative Research Teams of Ministry of Education. In 2018, 6 professors were appointed as talents of National High-level Talents Special Support Program (3 Sci&Tech Innovation Leaders, 2 Youth Talents, 1 Outstanding Teacher). 3 professors won the Government Special Allowance.1 professor obtained National Science Fund for Distinguished Young Scholars, 2 professors obtained National Science Fund for Excellent Young Scholars, 8 teachers were promoted to full professors and 7 teachers were promoted to associate professors.

教学科研队伍职称结构
Professional Structure



2018年新增 Awarded in 2018

“万人计划” 科技创新领军人才
Sci &Tech Innovation Leaders in National High-level Talents Special Support Plan



张朝阳
Zhang Zhaoyang



陈 为
Chen Wei



潘 纲
Pan Gang

“万人计划” 教学名师
Outstanding Teacher in National High-level Talents Special Support Plan



何钦铭
He Qinming

“万人计划” 青年拔尖人才
Youth Fellow in National High-level Talents Special Support Plan



吴争光
Wu Zhengguang



邓水光
Deng Shuiguang

国务院政府特殊津贴专家
Government Special Allowance Winner



徐之海
Xu Zhihai



王文海
Wang Wenhai



黄文君
Huang Wenjun

杰出青年基金获得者
National Distinguished Youth Science Foundation Fellow



尹建伟
Yin Jianwei

优秀青年基金获得者
National Excellent Youth Science Foundation Fellow



杨 青
YangQing



章国锋
Zhang Guofeng



刘崇
Liu Chong



钟财军
Zhong Caijun



吴维敏
Wu Weimin



许超
Xu Chao



王新宇
Wang Xinyu



朱建科
Zhu Jianke



汤永川
Tang Yongchuan



许迎科
Xu Yingke

副教授
Associate Professors



李英明
Li Yingming



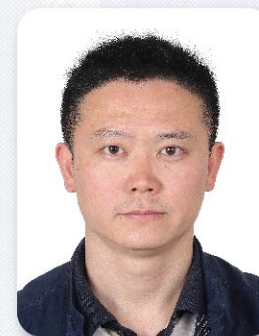
杨洋
Yang Yang



郑斌
Zheng Bin



卜凯
Bu Kai



王玉兴
Wang Yuxing



马德
Ma De



高艺
Gao Yi

引进教师 New Faculty Members

程潇羽 Cheng Xiaoyu	崔玉栋 Cui Yudong	狄大卫 Di Dawei	高飞 Gao Fei	高翔 Gao Xiang	韩劲松 Han Jinsong	郝翔 Hao Xiang	吉晨 Ji Chen	李荣鹏 Li Rongpeng
林峰 Lin Feng	林宏焘 Lin Hongtao	刘安 Liu An	刘雪松 Liu Xuesong	刘智毅 Liu Zhiyi	马德 Ma De	马耀光 Ma Yaoguang	秦湛 Qin Zhan	任奎 Ren Kui
王越 Wang Yue	吴丹 Wu Dan	张鹿鸣 Zhang Luming	赵博 Zhao Bo	赵明敏 Zhao Mingmin	郑婧 Zheng Jing	WHITFIELD DIFFIE		

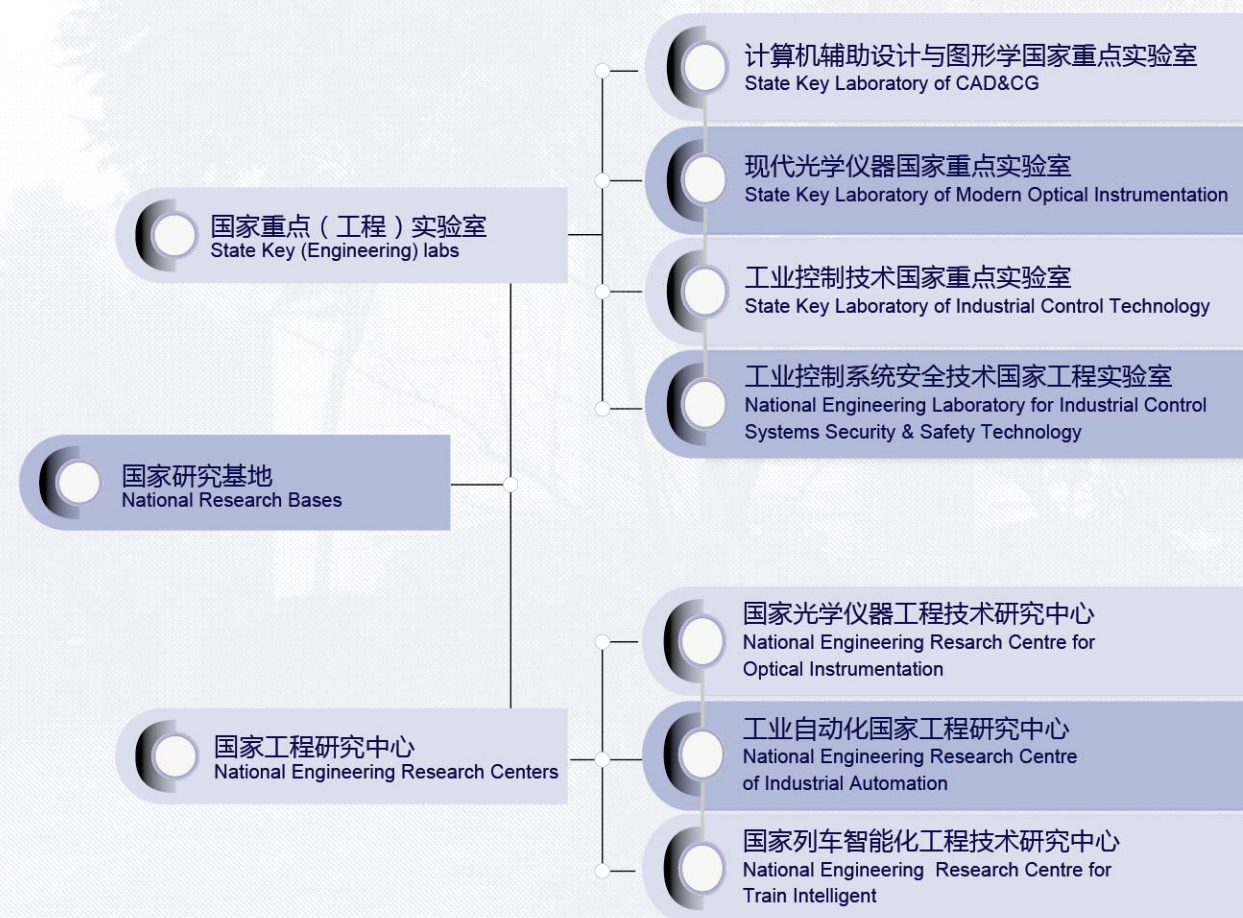
科学研究

Scientific Research

2018年度学部到校科研经费逾7.4亿，其中，国家自然科学基金获批68项，合计经费逾5572万元，包括杰青1项，优青2项，重点重大项目5项，国际联合基金2项。在研三重项目共14项，其中新增2项（军工）。发表论文SCI收录超730篇，其中高水平论文占50%。获国家授权发明专利311项。获浙江省自然科学一等奖1项。

In 2018, the total research funding of FIT reached over 740 million RMB. 68 grants with the amount up to 55.72 million RMB were approved by the National Natural Science Foundation of China (NSFC) , including 1 project for distinguished young scholars, 2 projects for excellent young scholars, Meanwhile, there were 14 new projects supported with over ten million each, 730 papers were indexed by SCI and 311 national patents have been approved this year. There was 1 Natural science Progress Prize of Zhejiang Province awarded the first class in 2018.

国家研究基地 National Research Bases



研究所 Institutes

学院 College of	研究所名称 Institute	所长 Director
光电科学与工程学院 Optical Science & Engineering	光学工程研究所 Inst. of Optical Engineering	白 剑 Prof. Bai Jian
	光学成像工程研究所 Inst. of Optical Imaging Engineering	冯华君 Prof. Feng Huajun
	光学惯性技术工程中心 Center for Optical Inertial Technology	刘 承 Prof. Liu Cheng
	光电信息检测技术研究所 Inst. of Optoelectronic Information Detection Technology	严惠民 Prof. Yan Huimin
	光电子技术研究所 Inst. of Optoelectronic Technology	沈永行 Prof. Shen Yonghang
	光电工程研究所 Inst. of Optical and Photonical Engineering	刘 旭 Prof. Liu Xu
	激光生物医学研究所 Inst. of Laser Biomedicine	丁志华 Prof. Ding Zhihua
	光及电磁波研究中心 Center for Optical & Electromagnetic Research	何赛灵 Prof. He Sailing
	微纳光子学研究所 Inst. of Microphotonics and Nanophotonics	邱建荣 Prof. Qiu Jianrong
信息与电子工程学院 Information Science and Electronic Engineering	信息与通信网络工程研究所 Inst. of Information, Communication and Network Engineering	虞 露 Prof. Yu Lu
	智能通信网络与安全研究所 Inst. of Intelligent Communication Network and Security	赵民建 Prof. Zhao Minjian
	信号空间和信息系统研究所 Inst. of Signal Space and Information System	徐 文 Prof. Xu Wen
	微纳电子研究所 Inst. of Microelectronics and Nanoelectronics	程志渊 Prof. Cheng Zhiyuan
	超大规模集成电路设计研究所 Inst. of VLSI Design	张 明 Prof. Zhang Ming
	微电子集成系统研究所 Inst. of Integrated Microelectronic Systems (IMS)	储 涛 Prof. Chu Tao
控制科学与工程学院 Control Science and Engineering	工业控制研究所 Inst. of Industrial Process Control	陈积明 Prof. Chen Jiming
	自动化仪表研究所 Inst. of Automation Instrumentation	黄志尧 Prof. Huang Zhiyao
	智能系统与控制研究所 Inst. of Cyber-Systems and Control	苏宏业 Prof. Su Hongye
计算机科学与技术学院 Computer Science and Technology	人工智能研究所 Inst. of Artificial Intelligence	吴 飞 Prof. Wu Fei
	计算机软件研究所 Inst. of Computer Software	陈 刚 Prof. Chen Gang
	计算机系统结构与网络安全研究所 Inst. of Computer System and Security	何钦铭 Prof. He Qinming
	现代工业设计研究所 Inst. of Modern Industrial Design	孙守迁 Prof. Sun Shouqian
生物医学工程与仪器 科学学院 Biomedical Engineering & Instrument Science	生物医学工程研究所 Inst. of Biomedical Engineering	夏 灵 Prof. Xia Ling
	数字技术及仪器研究所 Inst. of Digital Technology & Instrument	陈耀武 Prof. Chen Yaowu
	医疗健康信息工程技术研究所 Inst. of Medical and Health Information Engineering	叶学松 Prof. Ye Xuesong

科研亮点 Research Highlights

1. 学部青年创新奖 | Youth Innovation Awards



郑音飞 副教授

研究方向：生物医学超声影像

简介：主要从事多模态超声及颅脑成像的研究工作。在多模态超声方面，创建了一系列医学超声成像新技术，实现了完全自主知识产权的彩色超声成像设备，并进行了大规模的产业化推广；在颅脑超声方面，建立了颅脑非线性声场模型，提出了超声超材料结合平面波造影新技术，并实现了国内首次小鼠脑部超高分辨率组织和血流成像。主持科技部项目、国家自然科学基金、省级项目等科研项目10余项，发表SCI/EI论文30余篇，授权国家发明专利8项。

Ultrasound Image in Medicine and Biology

The researcher is mainly engaged in multimodal ultrasound and transcranial imaging. In multimodal ultrasound, he has presented a series of new technologies of medical ultrasound imaging and realized the color ultrasound imaging equipment with completely independent intellectual property rights which has been developed the large-scale industrialization promotion; In transcranial imaging, he has established the non-linear acoustic field model of brain, presented the new technology of combining ultrasonic metamaterial and plane wave and first achieved the super-resolution tissue and blood imaging of the brain of rats in domestic. In addition, he has presided over more than 10 research projects such as the Science and Technology Commission projects, the National Natural Science Foundation and provincial-level project. He also has published over 30 SCI/EI academic papers and won 8 national invention patents.



赵 洲 副教授

研究方向：多模态人机交互

简介：主要研究方向为自然语言处理、多媒体计算等，近五年发表论文50余篇，其中以第一作者发表CCF推荐A类论文17篇，Google学术H-Index为16，引用数为861。研究工作丰富了智能问答这一学术热点的理论体系、深化了其内涵：1)针对短文本理解问题，提出鲁棒性语义理解学习方法；2)首次提出视频问答任务和模型，实现视频文本之间人机交互和问答推理。2018年被福布斯中国评选为科学领域30U30封面人物。目前主持承担国家自然科学基金青年及重点项目子课题各1项。

Multimodal Human-machine Interaction

The researcher has made internationally influential contribution to the research fields of multimedia computing, machine learning and natural language processing. He has published over 50 scientific articles in prestigious international journals and conferences in related fields. The works were highly recognized and cited in the international community. His publications has been cited 861 times according to Google Scholar. His main contributions include: (1) from the viewpoint of semantic understanding, he has employed the transfer learning approach to model the semantic understanding of short text. (2) from the viewpoint of multimodal interaction, he investigated the multi-channel feature learning to the problem of video question answering.



陈杏藩 副研究员

研究方向：光纤传感器

简介：主要从事高精度光纤传感器研究，针对光纤传感测量精度难题，建立Sagnac干涉仪的完整噪声理论和模型；提出了过调制调制解调、饱和吸收、量子压缩态和有源、无源光纤谐振腔噪声抑制等一系列噪声抑制技术，有效的降低了干涉测量的底噪，提高相位测量信噪比，改进了角速度测量的灵敏度，并成功应用到多个外场试验中，取得了良好的效果。

Optical Fiber Sensor

The researcher focuses mainly on optical fiber sensor, especially on improving the sensitivity of a Sagnac interferometer. Under the noise model proposed to describe the sensitivity of the Sagnac interferometer, several novel solutions are proposed to improve its sensitivity, including over-modulation, optical-absorption, optical-squeezed light, active and passive FRR.

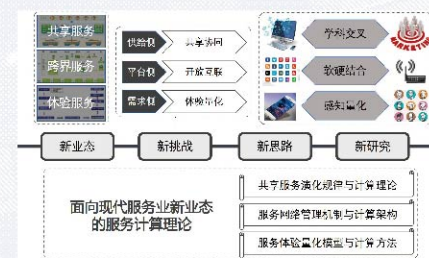
2. 重大重点项目及进展 | New Important Projects and Significant Progress

① 服务计算

由计算机学院尹建伟教授领衔的该项目获批2018年国家杰出青年基金资助。尹建伟教授长期从事服务计算的研究，在网络服务精准选择和高效组合、精细性能管理和多态数据精简、服务模式计算和服务流程推荐等方向开展了系列研究。未来拟研究重点研究共享服务计算模型与资源调度方法、大规模服务网络的交换路由理论和优化机制、服务体验的量化计算理论，探索面向现代服务业新业态的新型服务计算理论体系。

Service Computing

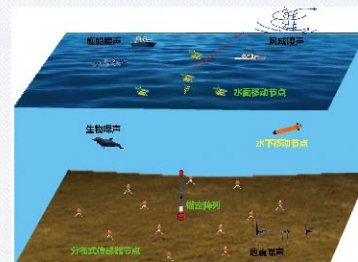
The project was supported by NSFC for Distinguished Young Scholars in 2018. The group led by Prof. Yin Jianwei from CS college has conducted some researches on service selection, service composition, performance optimization, service pattern computing, service process recommendation etc. In the future, the project will focus on the sharing service computing model and resource scheduling theory, the service exchange and routing mechanism and infrastructure for service network, quantification computing method of experience service, so as to establish the original framework of service computing for the new trade of modern service industry.



② 基于机会声源和分布式接收的水声遥测网络理论与方法

实现透明海洋，首先需要将海洋“照亮”。本项目从遥测网络体系的角度研究机会声源的应用，以互相关相干波前提取理论为指导，通过合理设计分布式网络架构，解决分布式海洋环境参数估计和声源定位等海洋信息获取的基本科学问题，为“照亮”海洋、实现大规模水下环境遥测提供了新途径。项目由信电学院徐文教授领衔，获得2018年国家基金重点项目资助。

Theory and Methodology of Underwater Acoustic Remote Sensing Network Using Sources of Opportunity and Distributed Receivers



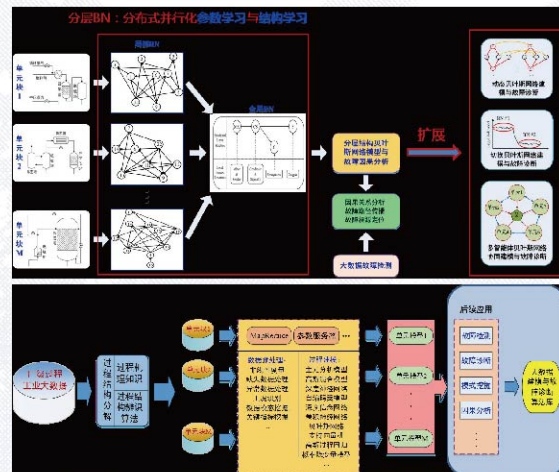
To achieve "transparent" ocean, the ocean needs to be "illuminated" firstly. This innovative research will study the application of sources of opportunity from the perspective of remote sensing system. Based on the theory of coherent wave front extraction via cross-correlation, it solves the basic problems of marine information acquisition, such as distributed parameter estimation and source localization in ocean environment, by rational designing the distributed network architecture. The results are expected to provide a new way for "illuminating" the ocean and realizing large-scale underwater remote sensing. This project, supported by the Key program of NSFC in 2018, is led by Prof. Xu Wen in ISEE college.

3 面向故障诊断的流程工业大数据分析分布式建模方法

由控制学院宋执环教授领衔的该项目获批2018年国家基金重点项目资助。项目围绕大规模厂级流程工业过程的故障诊断问题,开展基于大数据的智能建模与分析方法研究。主要研究内容包括:基于分布式并行计算框架的大数据建模方法研究;基于大数据的故障检测方法研究;基于贝叶斯网络的故障诊断与因果分析方法研究;故障模式的深度学习与半监督分类方法研究等。研究拟在大型合成氨装置和钢铁轧制过程实际应用验证,对推动流程工业制造的智能化具有重要的理论价值和现实意义。

Distributed Modeling and Analysis Method for Industrial Big Data Oriented to Process Fault Diagnosis

The project, led by Prof. Song Zhihuan of CSE college, was funded by the Key program of NSFC in 2018. It mainly focus on the fault diagnosis issue for the large scale plant-wide processes, and carries out research on intelligent modeling and analytics based on industrial big data. The main research include: industrial big data modeling method based on distributed parallel computing framework; fault detection method based on large data; fault diagnosis and causal analysis method based on distributed Bayesian network; deep learning of fault modes and semi-supervised classification method. The research results of the project are to be applied in large-scale ammonia plant and steel rolling process.



4 面向智能电网的信息物理安全理论及主动防御技术构建

控制学院程鹏教授带领的项目团队开展面向智能电网的信息物理安全理论与防御技术研究,获2018年国家基金重点项目资助,未来将重点探索智能电网信息空间和物理空间深度融合的特征,从识别、检测和保护三大安全回路出发,构建具有自演化能力的识别-检测-防护一体化主动防御模型,突破信息物理融合的威胁识别、基于电网物理特征的异常检测、信息物理安全控制理论与技术,搭建智能电网安全攻防实验平台验证理论与技术的有效性,为智能电网主动防御能力提升与系统优化运行提供理论与技术支撑。

Cyber-Physical Security Theory and Proactive Defense Technology for Smart Grid

The project, led by Prof. Cheng Peng of CSE college, was supported by the Key Program of NSFC in 2018, it will focus on the theory and technologies for the cyber-physical system threat identification, the physical-characteristics-based anomaly detection, cyber-physical secure control methods, and smart grid penetration and defense testbed for the evaluation, with a goal to enhance both the active defense capabilities and the system performance of smart grids.

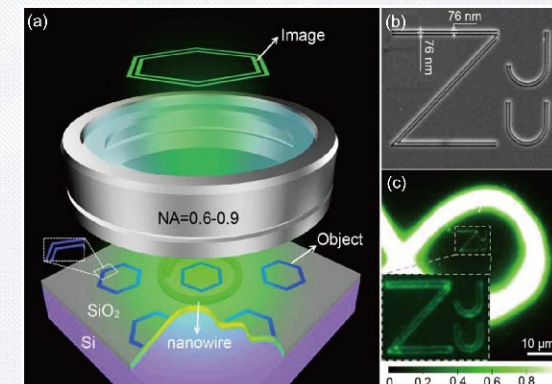


5 微纳光子器件

由光电学院杨青教授领衔的该项目获批2018年国家优秀青年基金资助。项目主要研究基于三场耦合的光学非线性效应和器件。理论结合实验揭示微纳尺度上力光电相互作用的物理本质;设计新功能结构,研究三场耦合非线性新效应如基于三场耦合的二阶参量转换过程;最终研制基于三场耦合的新型非线性光学器件,并将之用于高分辨信息获取和高灵敏传感。研究可以更深入认识光子-电子-声子在微纳体系的相互作用本质,制备具有更快响应、更高效率、更高灵敏度和更高分辨率的非线性光学传感和成像器件,推进其在生物传感和医学成像等领域的应用。

Micro-/Nanophotonics

Prof. Qing Yang in OSE college was supported by NSFC for Excellent Young Scholars in 2018. They will investigate nonlinear optical effects and devices based on three-phase coupling. Utilizing the new theory, they can design structures with new functions and do the research of new effects like second-order parametric conversion based on three phase coupling. Then, they plan to realize new nonlinear optical devices and push its applications in high resolution information acquisition and high sensitive sensing. The research can take a deeper knowledge of the substance of the photon-electron-phonon interaction in micro-/nano system. Moreover, the results can be used to design nonlinear optical sensors and imaging devices with quicker response rate, higher efficiency, more sensitivity and higher spatial resolution which could be applied in bio-sensors, medical imaging and so on.



6 智能视觉重建与导航



Intelligent Vision Reconstruction and Navigation

Prof. Zhang Guofeng in CS college studied the technology of video-based camera tracking and 3D reconstruction, and made an important breakthrough. The project, supported by NSFC for Excellent Young Scholars in 2018, will focus on the research of intelligent visual navigation and understanding of large-scale realistic scenes, and make important breakthroughs in key scientific issues and technologies, such as efficient matching and structured representation of large-scale image data, and efficient reconstruction and understanding based on the mobile/wearable devices and cloud computing platform. It not only provides new theoretical and technical support for the fields of computer vision, robotics and augmented reality, but also drives the development of related applications.

计算机学院章国锋教授深入系统地研究了基于视频的跟踪定位和三维结构恢复技术,并取得了重要突破,获2018年国家优秀青年基金资助。未来将重点研究大规模现实场景的智能视觉导航与理解,在大规模影像数据的匹配关联和结构化表示、基于移动/可穿戴设备和云计算平台结合的高效重建与理解等关键科学问题和技术方面取得重要突破,形成一个大规模现实场景的智能视觉导航与理解平台,为计算机视觉、机器人和增强现实领域提供新的理论和技术支撑,并推动相关应用的发展。

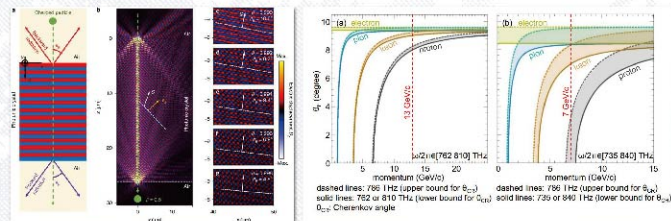
3. 年度代表性论文 Recommended Papers

① Controlling Cherenkov Angles with Resonance Transition Radiation

作者: Lin, Xiao; Easo, Sajan; Chen, Hongsheng; 等

来源: NATURE PHYSICS 卷: 14 期: 8 页: 816-821 出版年: AUG 2018

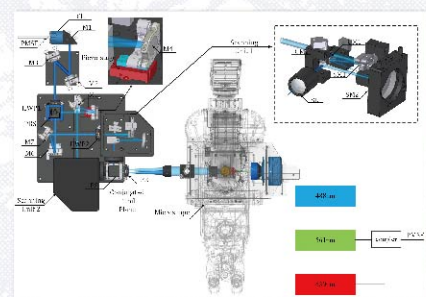
Cherenkov radiation provides a valuable way to identify high-energy particles in a wide momentum range, through the relation between the particle velocity and the Cherenkov angle. However, the relation is inherently limited by the refractive index of the material. This paper proposes a new mechanism to overcome the limit by using the resonance transition radiation in photonic crystals. This approach provides a promising versatile platform for identification of particles at high energy which is hard to achieve with a conventional Cherenkov detector.



② Multi-color Live-cell Super-resolution Volume Imaging with Multi-angle Interference Microscopy

作者: Chen, Youhua; Liu, Wenjie; Kuang, Cuifang; Liu, Xu; 等

来源: NATURE COMMUNICATIONS 卷: 9 文献号: 4818 出版年: NOV 2018



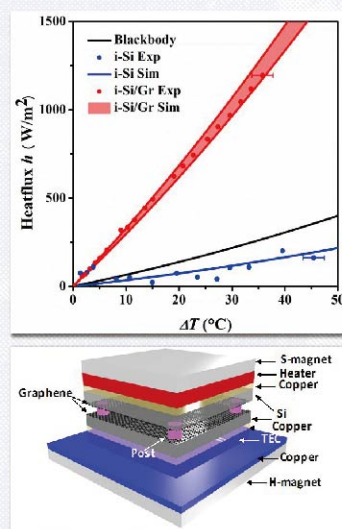
Imaging and tracking of near-surface three-dimensional volumetric nanoscale dynamic processes of live cells remains a challenging problem. In this paper, we propose a multi-color live-cell near-surface-volume super-resolution microscopy method that combines total internal reflection fluorescence structured illumination microscopy with multi-angle evanescent light illumination. We demonstrate that our approach of multi-angle interference microscopy is perfectly adapted to studying subcellular dynamics of mitochondria and microtubule architectures during cell migration.

③ Observing of the Super-Planckian Near-field Thermal Radiation between Graphene Sheets

作者: Yang, Jiang; Du, Wei; Ma, Yungui; 等

来源: NATURE COMMUNICATIONS 卷: 9 文献号: 4033 出版年: OCT 2018

Thermal radiation can be substantially enhanced in the near-field scenario due to the tunneling of evanescent waves. Monolayer graphene could play a vital role in this process owing to its strong infrared plasmonic response, however, which still lacks an experimental verification due to the technical challenges. Here, we make a direct measurement about plasmon-mediated thermal radiation between two macroscopic graphene sheets using a custom-made setup. Super-Planckian radiation with efficiency 4.5 times larger than the blackbody limit is observed at a 430-nm vacuum gap on insulating silicon hosting substrates. Based on these, a thermophotovoltaic cell made of the graphene-silicon heterostructure is proposed. The current work validates the classic thermodynamical theory in treating graphene and also paves a way to pursue the application of near-field thermal management.

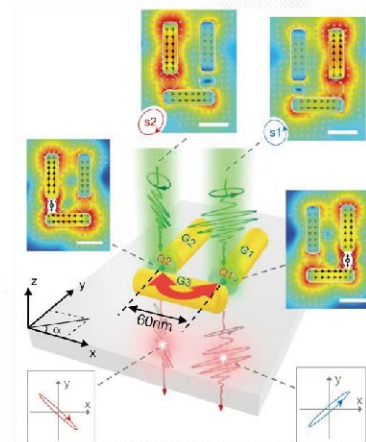


④ Selective Far-field Addressing of Coupled Quantum Dots in a Plasmonic Nanocavity

作者: Tang, Jianwei; Xia, Juan; Fang, Maodong; He, Sailing; 等

来源: NATURE COMMUNICATIONS 卷: 9 文献号: 1705

出版年: APR 2018



Plasmon-emitter hybrid nanocavity systems show great potential as testbeds and building blocks for quantum optics and informatics. However, the interaction among emitters is seldom investigated. Here we demonstrate selective far-field excitation and detection of two coupled quantum dot emitters. When we selectively excite or detect either emitter, we observe photon emission predominantly from the target emitter with up to 132-fold Purcell-enhanced emission rate, indicating individual addressability and strong plasmon-exciton interactions.

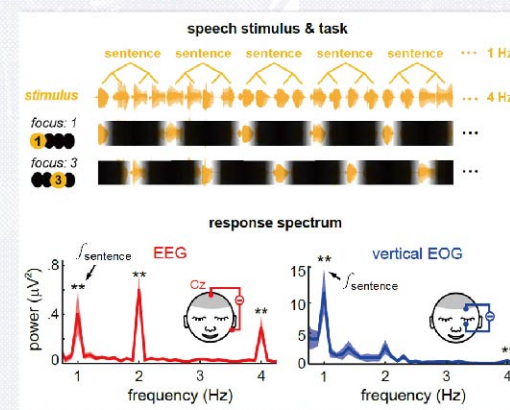
⑤ Eye Activity Tracks Task-relevant Structures During Speech and Auditory Sequence Perception

作者: Jin Peiqing; Zou Jiajie; Ding Nai; 等

来源: NATURE COMMUNICATIONS 卷: 9 文献号: 5374

出版年: DEC 2018

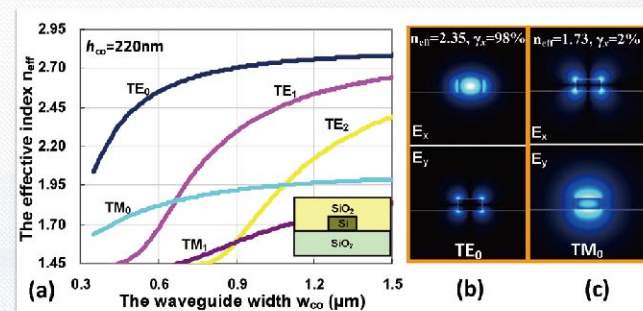
In cognitive neuroscience, it is debated whether the motor systems are involved in high-order perceptual tasks. This study shows that ocular muscle activity is synchronized to mentally constructed sentences during speech listening, in the absence of any visual cue. Such ocular tracking of non-visual rhythms possibly reflects global neural entrainment to task-relevant temporal structures across sensory and motor areas, which could serve to implement temporal attention and coordinate cortical networks.



⑥ Advanced Passive Silicon Photonic Devices with Asymmetric Waveguide Structures

作者: Dai, Daoxin

来源: PROCEEDINGS OF THE IEEE 卷: 106 期: 12 页: 2117-2143 出版年: DEC 2018

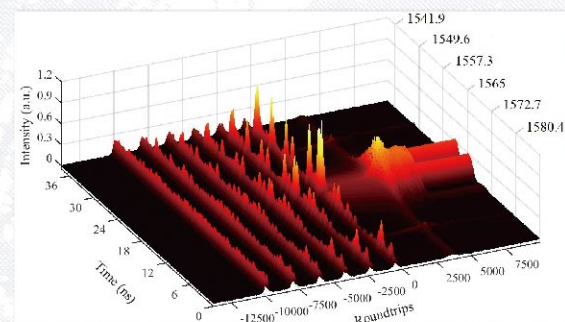


Various passive photonic integrated devices have been developed successfully with silicon-on-insulator (SOI) nanowires in the past decade. The structures and the design rules of a silicon photonic device are different from the conventional case with low- Δ optical waveguides. This paper reviews advanced passive devices in silicon photonics, such as on-chip polarization-handling devices, mode converters/(de)multiplexers, microring-resonator optical filters/switches, all taking advantage of the high index contrast and asymmetric waveguide structures.

7 Real-Time Observation of the Buildup of Soliton Molecules

作者: Liu, Xueming; Yao, Xiankun; Cui, Yudong

来源: PHYSICAL REVIEW LETTERS 卷: 121 期: 2 文献号: 023905 出版年: JUL 2018



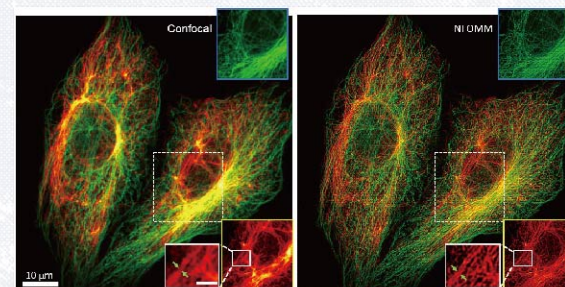
Observing the transient nonrepetitive dynamics that exists widely in various fields is a great challenge. The recently developed time-stretch dispersive Fourier transform (TS-DFT) technique provides an elegant way to obtain real-time, single-shot measurements of ultrafast phenomena. Here, we report the first observation of the entire buildup process of soliton molecules in a mode-locked laser by the means of TS-DFT technique. The effect of perturbation on the starting process has been studied, which is instructive for the research and design of ultrafast laser systems.

8 Nonlinear Focal Modulation Microscopy

作者: Zhao, Guangyuan; Zheng, Cheng; Kuang, Cuifang; Liu, Xu 等

来源: PHYSICAL REVIEW LETTERS 卷: 120 期: 19 文献号: 193901 出版年: MAY 2018

Traditional point-scanning approaches to superresolution often rely on spatially reducing the size of the emission pattern. We show that an alternative conceptualization that focuses on maximizing the optical system's frequency shifting ability, called nonlinear focal modulation microscopy (NFOMM), offers advantages in improving resolution (~ 60 nm) while reducing system complexity. Since NFOMM is readily implemented as an add-on module to a laser-scanning microscope, we anticipate wide utility of this new imaging technique.

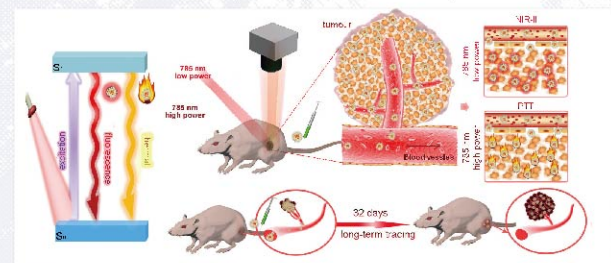


9 Single-Molecular Near-Infrared-II Theranostic Systems: Ultrastable Aggregation-Induced Emission Nanoparticles for Long-Term Tracing and Efficient Photothermal Therapy

作者: Alifu, Nuernisha; Zebibula, Abudurehman; Qian, Jun; 等

来源: ACS NANO 卷: 12 期: 11 页: 11282-11293 出版年: NOV 2018

Second near-infrared (NIR-II, 900-1700 nm) fluorescence bioimaging has attracted tremendous scientific interest and already



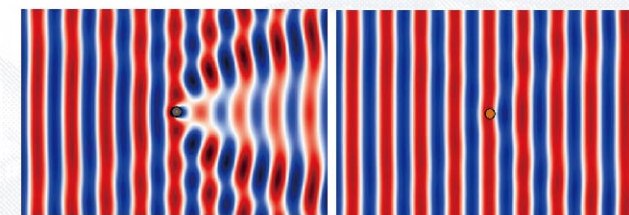
been used in many biomedical studies. Here, a kind of NIR-II emissive aggregation-induced emission (AIE) nanoprobe with high-efficiency and stable photothermal effect was synthesized. Based on our lab-built NIR-II fluorescence whole-body imaging system, the AIE nanoprobe was successfully utilized for NIR-II fluorescence imaging guided photothermal therapy and long-term tracing of subcutaneous and orthotopic bladder tumours on live mice.

10 Multifrequency Superscattering from Subwavelength Hyperbolic Structures

作者: Qian, Chao; Lin, Xiao; Chen, Hongsheng; 等

来源: ACS PHOTONICS 卷: 5 期: 4 出版年: APR 2018

Enhancing scattering of light is a fundamental building block to elementary electromagnetic theory and merits many distinct applications such as photovoltaics and bioimaging. This work introduces a unique route to obtain strong scattering at the subwavelength scale—multifrequency superscattering via hyperbolic material. Such superscattering has a high tolerance to material losses and structural variations, bringing the concept of multifrequency superscattering closer to practical applications.



11 On Stability and Convergence of Optimal Estimation for Networked Control Systems With Dual Packet Losses Without Acknowledgment

作者: Lin, Hong; Su, Hongye; Chen, Michael Z. Q.; 等

来源: AUTOMATICA 卷: 90 期: 4 页: 81-90 出版年: APR 2018

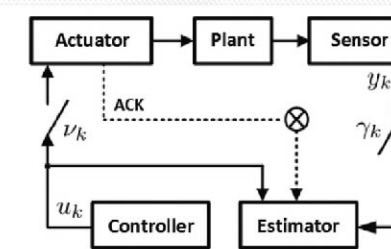


Fig. 1. The UDP-like system. The symbol \otimes is used to emphasize that there is no acknowledgment signal from the actuator to the estimator.

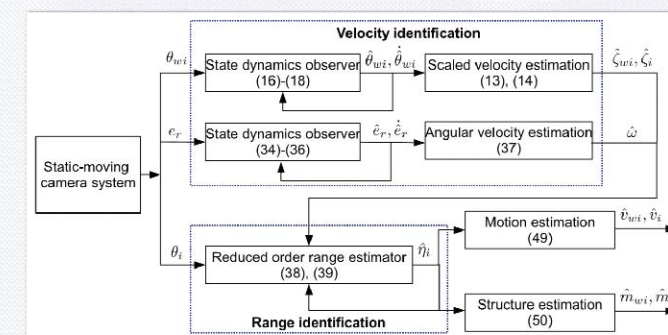
We study the optimal state estimation problem for networked control systems with control and observation packet losses but without packet acknowledgment. The acknowledgment is a signal sent by the actuator to inform the estimator whether control packets are lost or not. Systems without acknowledgment are named user datagram protocol (UDP)-like systems. For UDP systems, the optimal estimator consists of an exponentially increasing number of terms, and there exists a critical observation packet arrival rate determining the stability of the expected error covariance.

12 Identification of a Moving Object's Velocity and Range With a Static-moving Camera System

作者: Chen, Jian; Zhang, Kaixiang; Jia, Bingxi; 等

来源: IEEE TRANSACTIONS ON AUTOMATIC CONTROL 卷: 63 期: 7 页: 2168-2175 出版年: JUL 2018

A nonlinear observer strategy is proposed to asymptotically identify the velocity and range of the feature points on a moving object using a static-moving camera system. Specifically, the observers are developed in a sequential way. First, nonlinear observers are designed to identify the scaled velocity of the feature points and the angular velocity of the moving camera. Second, based on the estimated velocities, the range of the feature points is identified by a reduced order estimator. The proposed approach



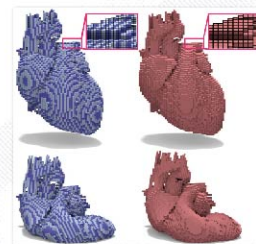
does not require the motion constraint or a priori geometric knowledge of the moving object. Furthermore, Lyapunov-based analysis is used to prove that the estimators asymptotically identify the velocity and range of the feature points.

13 Numerical Coarsening Using Discontinuous Shape Functions

作者: Chen, Jiong; Bao, Hujun; Huang, Jin; 等

来源: ACM TRANSACTIONS ON GRAPHICS 卷: 37 期: 4 文献号: 120 出版年: AUG 2018

Simulating complex heterogeneous elastic object is always time consuming. Hence, we propose a novel approach to simulate inhomogeneous elastic objects. Our numerical coarsening approach consists in optimizing non-conforming and matrix-valued shape functions to allow for predictive simulation of heterogeneous materials on coarse grids, thus saving orders of magnitude in computational time compared to traditional finite element computations.



14 Efficient Reflectance Capture Using an Autoencoder

作者: Kang, Kaizhang; Chen, Zimin; Zhou, Kun; Wu, Hongzhi; 等

来源: ACM TRANSACTIONS ON GRAPHICS 卷: 37 期: 4 文献号: 127 出版年: AUG 2018

We propose a novel framework that automatically learns lighting patterns for efficient reflectance acquisition, and how to faithfully reconstruct spatially varying anisotropic BRDFs and local frames from measurements under such patterns. The core of our framework is an asymmetric deep autoencoder, consisting of a nonnegative, linear encoder which directly corresponds to the lighting patterns used in physical acquisition, and a stacked, nonlinear decoder which computationally recovers BRDF information from photographs.

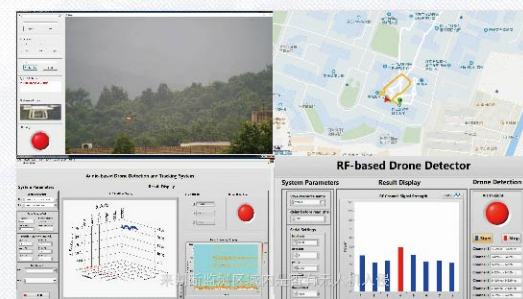


15 Anti-Drone System with Multiple Surveillance Technologies: Architecture, Implementation, and Challenges

作者: Shi, Xiufang; Shi, Zhiguo; Chen, Jiming; 等

来源: IEEE COMMUNICATIONS MAGAZINE 卷: 56 期: 4 页: 68-74 出版年: APR 2018

The prevalent use of drones poses great threats to public security and personal privacy. It is necessary to deploy anti-drone system in the sensitive area to detect, localize and defend against the intruding drones. We provide a comprehensive overview of the technologies utilized for drone surveillance. Then, we develop an anti-drone system in Zhejiang University, named ADS-ZJU, which combines multiple surveillance technologies to realize drone detection, localization and radio frequency jamming. Furthermore, we discuss the challenges and open research issues in such a system.



16 A Hierarchical SDN Architecture for Ultra-Dense Millimeter-Wave Cellular Networks

作者: Yu, Guanding; Liu, Rui; Tang, Zhenzhou; 等

来源: IEEE COMMUNICATIONS MAGAZINE

卷: 56 期: 6 页: 79-85 出版年: JUN 2018

This article introduces a novel hierarchical SDN architecture to facilitate the deployment of UDNs with both microwave base stations and mmWave access points, where a semi-distributed design approach is employed for reducing the cost of computational complexity and signaling overhead. Based on this, several key operations are proposed to further enhance the network performance, including dynamic subordinate SDN management, mobility management, and user centric design.

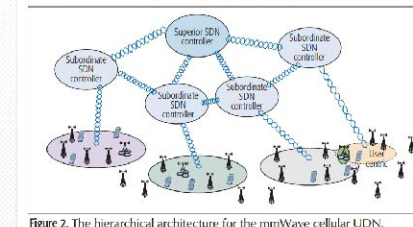


Figure 2. The hierarchical architecture for the mmWave cellular UDN.

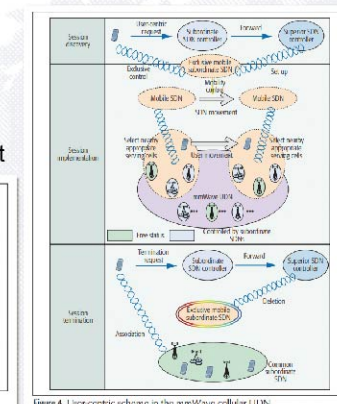
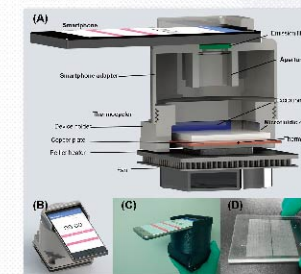


Figure 4. User-centric scheme in the mmWave cellular UDN.

17 Smartphone-based Mobile Digital PCR Device for DNA Quantitative Analysis with High Accuracy

作者: Gou, Tong; Hu, Jiumei; Mu, Ying; 等

来源: BIOSENSORS & BIOELECTRONICS 卷: 120 页: 144-152 出版年: NOV 2018



To realize DNA quantitative analysis in resource limited settings, we developed a smartphone-based mobile dPCR device integrated with thermal cycling control, on-chip dPCR, data acquisition and analysis. All the function units are automatically controlled using a customized Android software. The device can quantify ultralow number of DNA molecules. Comparing to the commercial dPCR platform, it achieved comparable analytical accuracy. Therefore, our device can be used as a potable and robust tool for absolute DNA quantitation and has potential in Point-of-care applications.

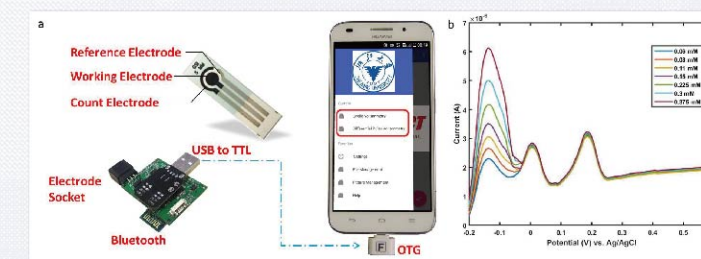
18 Smartphone-based Integrated Voltammetry System for Simultaneous Detection of Ascorbic Acid, Dopamine, and Uric Acid with Graphene and Gold Nanoparticles Modified Screen-printed Electrodes

作者: Ji, Daizong; Liu, Zixiang; Liu, Qingjun; 等

来源: BIOSENSORS & BIOELECTRONICS 卷: 119 页: 55-62 出版年: NOV 2018

A smartphone-based integrated voltammetry system using modified electrode was developed for simultaneous detection of ascorbic acid, dopamine, and uric acid. The smartphone system contained a disposable sensor and a coin-size detector.

The results showed that the peak currents of each substance increased with higher concentration and the method allowed the discrimination of the different potentials of the studied species. The system could be used to detect electrochemical activity of biomolecules for point of care testing (POCT).



人才培养

Education

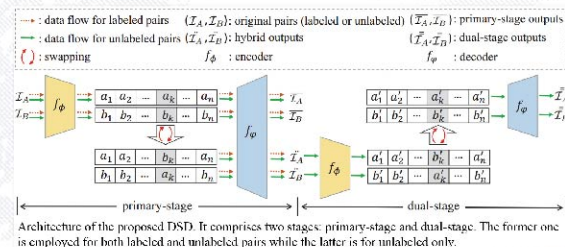
19 Dual Swap Disentangling

作者: Feng, Zunlei; Wang, Xinchao; Song, Mingli; 等

来源: THE THIRTY-THIRD CONFERENCE ON NEURAL INFORMATION PROCESSING SYSTEMS

页: 5898-5908 出版年: 2018

A Dual Swap Disentangling (DSD) model is proposed to learn disentangled representations using limited and weakly-labeled training samples. The model requires the shared attribute as the only annotation of a pair of input samples, and is able to take advantage of the vast amount of unlabeled samples to facilitate the model training. This is achieved by the dual-stage architecture, where the labeled samples go through the “encoding-swap-decoding” process once while the unlabeled ones go through the process twice. Such self-supervision mechanism for unlabeled samples turns out to be very effective: DSD yields results superior to the state-of-the-art on several datasets of different domains.



20 Towards Optimal Concolic Testing

作者: Wang, Xinyu; Sun, Jun; Chen, Zhenbang; 等

来源: PROCEEDINGS OF THE 40TH INTERNATIONAL CONFERENCE ON SOFTWARE ENGINEERING 页: 291- 302 出版年: MAY 2018

A concolic testing strategy is a function which decides when to apply random testing or symbolic execution, and if it is the latter case, which program path to symbolically execute. It is still an open problem what is the optimal concolic testing strategy. To solve this problem, we first show that the optimal strategy can be defined based on the probability of program paths and the cost of constraint solving. Then, we design a greedy algorithm for approximating the optimal strategy. Fortunately, this paper won the ACM SIGSOFT Distinguished Paper Award at ICSE'2018.



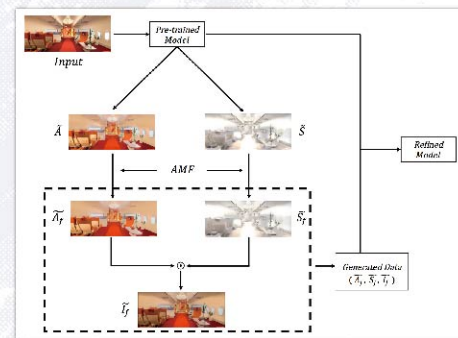
21 Intrinsic Image Transformation via Scale Space Decomposition

作者: Cheng, Lechao; Zhang, Chengyi; Liao, Zicheng

来源: IEEE/ CVF CONFERENCE ON COMPUTER VISION AND PATTERN RECOGNITION

页: 656-665 出版年: JUN 2018

We introduce a new network architecture for decomposing an image into its intrinsic albedo and shading signals. We treat this as an image-to-image transformation problem and explore the scale structures of image space. By expanding the albedo



and shading images into their Laplacian pyramid layers, we develop a multi-channel architecture that learns the image-to-image transformation function in a successive of frequency channels, within each channel is a fully convolutional neural network. This network architecture is general and extensible, and demonstrates excellent performance on the task of intrinsic image decomposition. We evaluate the network on two benchmark datasets: the MPI-Sintel dataset and the MIT Intrinsic Images dataset. Quantitative and qualitative results show a clear progression over state-of-the-art. Future exploratory includes applications in depth estimation, image pixel labeling, etc.

本科专业 UG Programs

学院 College of	本科专业 UG Program
光电科学与工程学院 Optical Science and Engineering	光电信息科学与工程 Optoelectronic Information Science and Engineering
信息与电子工程学院 Information Science and Electronic Engineering	信息工程 Information Engineering
	电子科学与技术 Electronic Science and Technology
	微电子科学与工程 Microelectronic Science and Engineering
控制科学与工程学院 Control Science and Engineering	自动化 Automation
计算机科学与技术学院 Computer Science and Technology 软件学院 Software Technology	计算机科学与技术 Computer Science and Technology
	数字媒体技术 Digital Media Technology
	软件工程 Software Engineering
	工业设计 Industrial Design
	产品设计 Product Design
	信息安全 Information Safety
生物医学工程与仪器科学学院 Biomedical Engineering & Instrument Science	生物医学工程 Biomedical Engineering
	测控技术与仪器 Measurement and Control Technology and Instruments

学科 Disciplines

光学工程 Optical Engineering
光学工程 Optical Engineering
光通信技术 Optical Communication Technique
信息传感及仪器 Information Sensing and Instruments
电子科学与技术 Electronics Science and Technology
物理电子学 Physical Electronics
微电子学与固体电子学 Microelectronics and Solid State Electronics
电路与系统 Circuits and Systems
电磁场与微波技术 Electromagnetic Field and Microwave Technology
信息与通信工程 Information and Communication Engineering
通信与信息系统 Communication and Information Systems
信号与信息处理 Signal and Information Processing
控制科学与工程 Control Science and Engineering
控制理论与控制工程 Control Theory and Control Engineering
检测技术与自动化装置 Detection Technology and Automatic Equipment
系统工程 Systems Engineering
模式识别与智能系统 Pattern Recognition and Intelligent Systems
导航、制导与控制 Navigation, Guidance and Control
计算机科学与技术 Computer Science and Technology
计算机应用技术 Computer Applied Technology
计算机系统结构 Computer Systems Organization
数字化艺术与设计 Digital Art and Design
电子服务 Electronic Service
软件工程 Software Engineering
计算机软件与理论 Computer Software and Theory
生物医学工程 Biomedical Engineering
生物医学工程 Biomedical Engineering
电子信息技术及仪器 Electronic Information Technologies and Instruments
网络空间安全 Cyberspace Security
设计学 Design
设计艺术学 Art of Design

学生 (人) Students

学 生 Students		学 院 College	光电科学与 工程学院 COSE	信息与电子 工程学院 ISEE	控制科学与 工程学院 CSE	计算机科学与 技术学院 CCST	软件 学院 CST	生物医学 工程与仪器 科学学院 BME	合计 Total
在校生 Enrollments	博士生 Doctor		255	259	207	449	/	222	1392
	硕士生 (全日制) Master		359	678	442	1002	488	284	3258
	本科生 (15级、 16级、17级) Undergraduate		362	921	496	1305	/	379	3463
招生数 Freshmen	博士生 Doctor		59	64	52	91	/	43	309
	硕士生 (全日制) Master		142	264	157	354	233	104	1254
	本科生 (18级) Sophomore		116	287	174	485	/	105	1167
毕业生 Graduates	博士生 Doctor		41	42	38	63	/	18	202
	硕士生 (全日制) Master		94	127	122	298	220	99	957
	本科生 Undergraduate		108	265	105	380	/	130	988
本科生深造 与对外交流 Further Study and International Exchange of Undergraduate	毕业生* Graduate*		99	257	97	360	/	130	943
	出国 (境) 深造率 Ratio of Further Studies Aboard		40.40%	21.01%	29.90%	31.94%	/	14.62%	27.25%
	国内读研率 Ratio of Further Studies at Home		26.26%	42.8%	42.27%	22.22%	/	32.31%	31.71%
	对外交流人次 International Exchange		85	178	111	288	/	57	719

*不包括竺可桢学院学生
*Except the students belong to Chu Kochen Honors College

专项奖 Special Awards

奖项 Award	获奖学生 Winners	学院 College of
2017-2018学年浙江大学 竺可桢奖学金 Chu Kochen Scholarship	王 泰 Wang Tai	信息与电子工程学院 Information Science and Electronic Engineering
	官孝清 Guan Xiaqing	控制科学与工程学院 Control Science and Engineering

国际学科竞赛 International Disciplinary Competitions

竞赛名称 Competition	奖 项 Award	获奖人员（及作品） Winners List	指导教师 Advisor
2018年国际大学生程序设计竞赛 ACM International Collegiate Programming Contest Asia Region (ACM-ICPC)	亚洲赛区季军 Second Runner-up in Asia Regional Contest	Reconquista: 刘振威 颜姜哲 蒋仕彪	王 灿 Wang Can
	亚洲赛区金牌 Gold Medalist in Asia Regional Contest	Reconquista: 刘振威 颜姜哲 蒋仕彪	
		Legilimens: 陈靖邦 叶梓成 刘明锐	
		Helianthus: 李彦奎 吕耀维 李广林	
		EuropeSun: 欧阳逸飞 王宇晗 张 鑫	
		Acetic_ACid: 王义泽 段政付 冰 洋	
	亚洲赛区银牌 Silver Medalist in Asia Regional Contest	Legilimens: 陈靖邦 叶梓成 刘明锐	
		EuropeSun: 欧阳逸飞 王宇晗 张 鑫	
		YaSHa: 黄洋逸 邓浩然 刘一辰	
		Nameless_Sunstar: 郑鸿鹄 陈昱文 林思仪	
		Sample_Text: 金 天 祁佳晨 王晨宇	
		Innocence: 张智焕 阎睿斌 王书含	
2018世界机器人大赛 The 22 th Robot World Cup (RoboCup 2018)	小型组冠军 Small Size League First Place	ZJUNliet: 顾见洋 许皓彦 温力成 黄哲远 陈泽希 王云凯 胡 朋 蔣穎麟 陈凌云 李佳诚	熊 蓉 周春琳 Xiong Rong Zhou Chunlin
	小仿人组第四名 Kid-Size Humanoid League Fourth Place	ZJUDancer: 潘雨粟 李诚辉 付强 陈昕欣 黄淮扬 周晟皓 李星翰 姜朝峰 樊 武	
2018国际空中机器人大赛 (亚太赛区) 2018 International Aerial Robotics Competition (Asia-Pacific Venue)	冠军 Champions	ZMART:叶鸿凯 汪哲培 熊 坤 张焜怡 丁梓明 万泽宇	许 超 张 宇 Xu Chao Zhang Yu
2018 iF国际学生设计奖 iF Student Design Award 2018	优胜奖 Winner	Adapshoe: 刘 馨 王品豪 刘忆洲 陈 旻 Younes	徐雯洁 Xu Wenjie

国内学科竞赛 Civil Disciplinary Competitions

竞赛名称 Competition	奖 项 Award	获奖人员（及作品） Winners List	指导教师 Advisor
2018年中国大学生程序设计竞赛 China Collegiate Programming Contest (CCPC)	季军 Second Runner Up	Reconquista: 刘振威 颜姜哲 蒋仕彪 Legilimens: 陈靖邦 叶梓成 刘明锐	王 灿 Wang Can
	金牌 Gold Medal	Reconquista: 刘振威 颜姜哲 蒋仕彪 Legilimens: 陈靖邦 叶梓成 刘明锐 YaSHa: 黄洋逸 邓浩然 刘一辰 Helianthus: 李彦奎 吕耀维 李广林 Repeaters: 孙志博 周义涵 沈霁 Dogeheads: 田文杰 高辰翔 马宁	
		EuropeSun: 欧阳逸飞 王宇晗 张 鑫 YaSHa: 黄洋逸 邓浩然 刘一辰	
	银牌 Brozen Medal		
中国设计智造大奖 Design Intelligence Award	设计先临奖二等奖 2nd Place	自助式3D巧克力打印机: 邹 敏	柴春雷 Chai Chunlei
2018年全国大学生电子设计竞赛 模拟电子系统设计专题邀请赛 2018 National College Students Electronic Design Competition Analog Electronic System Design Thematic Invitational Competition	一等奖 1st Place	杨长贵 欧阳胜雄 冯向东	张 昱 李培弘 Zhang Yu Li Peihong
	二等奖 2nd Place	肖 蕊 陈宇飞 丁越雷	张 昱 马洪庆 Zhang Yu Ma Hongqing
2018年全国大学生信息安全竞赛 2018 National College Students Information Security Competition	一等奖 1st Place	陈泓伯 王忠禹 郑益成	张 帆 Zhang Fan
	二等奖 2nd Place	程 琦 王 超 樊瑞新 张金龙	张 帆 Zhang Fan
第六届全国大学生光电设计 竞赛实物竞赛 The 6 th National University Students' Opt-Sci-Tech Competition	二等奖 2nd Place	金哲彦 卢冠宇 林飞宏 吴 骁 雷博伟 黄琪琛	汪凯巍 Wang Kaiwei
		李昊颖 程邢磊 袁逸凡	匡翠方 Kuang Cuifang
	三等奖 3rd Place	王清泽 赵 帅 郑宏伟	杨建华 Yang Jianhua
		俞钱斌 田 鑫 胡鑫欣	赵文义 Zhao Wenyi
		刘子睿 莫君尧 卢斌杰	吴 波 Wu Bo
		王抒皓 董婉潔 陈力瑶	匡翠方 Kuang Cuifang
		张乾威 黄璐哲 刘 洋	马耀光 Ma Yaoguang
		王晓彬 刘鑫航 片思杰	

海外交流

International Exchange and Cooperation

学部2018年教师出访参加学术会议、合作交流共514人次，约接待250人次国外学者来访进行学术交流，主办国际会议10次以上，接待Vmware、华为等知名机构来访合作交流，加强人才联合培养，提升学部教学与科研水平。

In 2018, 514 persons visited abroad for academic exchange and cooperation. About 250 world-renowned scholars were invited to visit FIT. Meanwhile, we successfully hosted about 10 international conferences and welcomed the delegations from Vmware, Huawei etc. The colleges of FIT continue to strengthen the international exchange and cooperation in order to enhance the level of teaching and scientific research.

主办国际会议 Host International Conferences

序号 No.	会议名称 Conference	时间 Date
1	第60届IEEE暨第9届亚太地区电磁兼容国际学术大会联合会议 Joint IEEE EMC & APEMC 2018	May 14-17
2	2018海洋光学遥感国际研讨会 International Workshop on Ocean Optical Remote Sensing 2018	June 8-9
3	第一届量子控制与机器学习国际研讨会 The 1 st International Workshop on Quantum Cybernetics and Machine Learning	June 23-24
4	第三届通信、计算与控制研讨会 The 3 rd International Workshop on Broadband Communications, Computing, and Control Research (BBC ³ R)	July 7-8
5	信息、控制论与计算社会系统国际会议 International Conference on Information, Cybernetics, and Computational Social Systems (ICCSS)	August 17-19
6	第十届国际无线通信与信号处理大会 The 10 th International Conference on Wireless Communications and Signal Processing (WCSP)	October 18-20
7	第三届西湖国际光电子论坛 West-Lake Photonics Symposium	October 25-26
8	2018年度亚洲通信和光子学会议 Asia Communications and Photonics Conference 2018	October 26-29
9	第十六届服务计算国际大会 The 16 th International Conference on Service-Oriented Computing	November 12-15
10	首届中-瑞光学成像与光遗传学系列学术讲座 China-Sweden Joint Symposium on Optical Visualization and Manipulation of Cellular Processes	November 15-16

2018要闻

News 2018

1月22日，浙江大学信电学院虞露教授被任命为MPEG国际标准组视频组组长

On Jan. 22nd, Prof. Yu Lu was appointed the Video Group Chair of the ISO/IEC JTC1 SC29 WG11 (MPEG).



2月27日，设计学获批一级学科博士学位授权点

On Feb. 27th, the design discipline was given permission to award primary doctoral degree.

3月13日，浙江大学光电学院刘旭、杨青教授课题组成果入选“2017中国光学十大进展-应用研究类”

On Mar. 13th, the research achievement by Prof. Liu Xu and Prof. Yang Qing's group was selected as "China's Top Ten Optics Advances in 2017-Applied Research".



3月29日，信息学部召开2018年工作会议，学术委员会顺利换届

On Mar. 29th, the FIT held its annual work conference(2018), and new Academic Committee members were elected.



5月17日，浙江大学&VMware技术交流会暨校企合作洽谈会召开

On May 17th, technical exchange and cooperation meeting was held between ZJU & VMware.

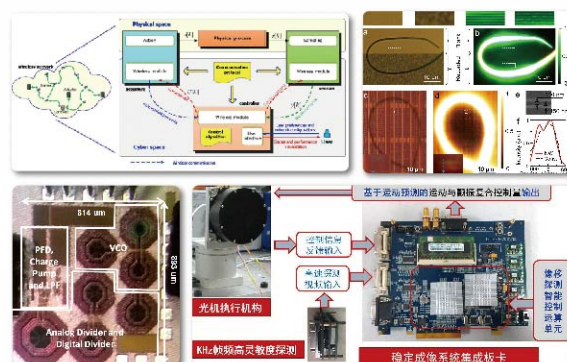
7月10日，学部携手工研院协同举办首期“智汇紫金”论坛——智能家居行业高端对话

On July 10th, FIT and Industrial Technology Research Institute of ZJU jointly organized their first forum. The theme was High-level Talk on the Smart Home Industry.



5月22日，信息学部共4项学术研究成果入选浙江大学2017年度十大学术进展（含提名）

On May 22nd, four research achievements of FIT were voted as "ZJU Top Ten Academic Advances in 2017" (including nomination).



7月18日，学部副主任陈积明率队赴上海交通大学调研切磋双一流信息学科群发展新思路

On July 18th, Prof. Chen Jiming, Vice Dean of FIT, led a delegation to Shanghai Jiao Tong University to discuss conducting research on the development of "Double First-Class Information Technology Subject Groups".

浙大发任〔2018〕18号

各学院（系），行政各部门，各校区管委会，直属各单位：

学校决定：

陈积明任信息学部副主任；

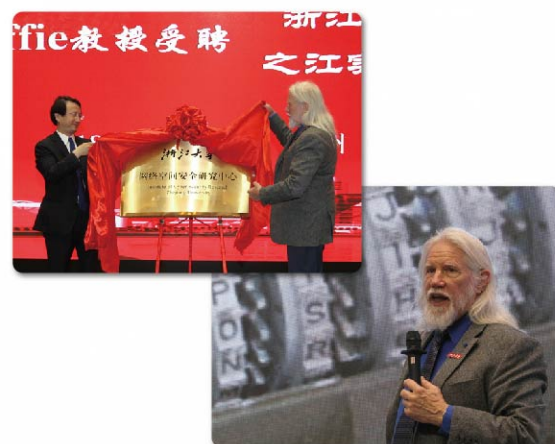
免去李尔平的信息学部副主任职务。

浙江大学

2018年6月15日

6月15日，陈积明教授任信息学部副主任

On June 15th, Prof. Chen Jiming from CSE college was appointed as Vice Dean of FIT.



7月19日，FITEE新编委聘任暨2018编委会扩大会议在浙大召开

On July 19th, FITEE (ISSN2095-9184) Editorial Committee Expanded Meeting 2018 was held in ZJU, including appointing new editorial board members.



7月27日，教育部科技委信息学部2018年工作会议在杭召开

On July 27th, the 2018 annual meeting of the information division of MOE Sci & Tech Commission was held in Hangzhou.

7月5日，图灵奖得主Whitfield Diffie教授全职出任浙大网络空间安全研究中心荣誉主任

On July 5th, Whitfield Diffie, A.M. Turing Award Laureate, joined ZJU as full-time professor and honorary director of the Cyberspace Security Research Center at ZJU.