

TOCS 2025

6th International Conference on Telecommunications,

Optics and Computer Science

第六届电信、光学、计算机科学国际会议

会议日程

Conference Program



中国，南阳 | 2025 年 11 月 21-23 日

Nanyang, China | November 21-23, 2025

第六届电信、光学、计算机科学国际会议 (6th International Conference on Telecommunications, Optics and Computer Science, TOCS 2025) 将于 2025 年 11 月 21-23 日在历史悠久的南阳召开。本届会议由南阳理工学院主办，南阳理工学院信息工程学院、国际应用科学与技术协会 (IAAST)、微研学术承办。

本届会议以“电信、光学、计算机科学”为主题，旨在为全球电信、光学和计算机科学领域的专家、学者及从业人员提供一个高水平的学术交流平台。会议将围绕行业前沿技术、热点问题及科研挑战，探讨最新的科学研究成果与技术发展，并为参会者提供一个分享最新研究成果、交流创新思想、推动国际合作的机会。

TOCS 2025 诚邀专家学者、科研人员、企业代表及学生齐聚南阳，参会交流！

The 6th International Conference on Telecommunications, Optics and Computer Science (TOCS 2025) will be held in Nanyang, China during November 21-23, 2025. The conference is hosted by Nanyang Institute of Technology, China, organized by School of Information Engineering, Nanyang Institute of Technology, China, International Association of Applied Science and Technology (IAAST), WeResearch.

The conference will focus on the theme of "Telecommunications, Optics, and Computer Science" and aims to provide a high-level academic exchange platform for experts, scholars, and professionals from the global telecommunications, optics, and computer science fields. The event will cover cutting-edge technologies, current industry issues, and research challenges, offering participants an opportunity to share the latest research findings, exchange innovative ideas, and promote international cooperation.

TOCS 2025 warmly invites scholars, researchers, industry representatives, and students to gather in Nanyang for this exciting event. Join us for insightful discussions and meaningful collaborations!

主办单位

南阳理工学院

承办单位

南阳理工学院信息工程学院

国际应用科学与技术协会（IAAST）

微研学术

大会主席：

Witold Pedrycz 教授，加拿大阿尔伯塔大学；加拿大皇家科学院院士；波兰科学院外籍院士

Sos S. Agaian 教授，美国纽约市立大学

联席主席：

伍世虔教授，河南科学院新型显示技术研究所副所长、首席科学家

组织委员会主席：

牛军教授，南阳理工学院信息工程学院院长

蔡雁岭教授，郑州大学

技术委员会主席：

陈磊教授，山东大学

Rena Huang 教授，美国仁斯利尔理工大学

岳洋教授，西安交通大学

技术委员会成员：

Aarti Amod Agarkar, Vishwakarma institute of Technology, India

Anand Nayyar, Duy Tan University, Viet Nam

Aizaz Chaudhry, Carleton University, Canada

Artur Czerwinski, Nicolaus Copernicus University in Torun, Poland

Bharat S. Chaudhari, MIT World Peace University, India

Chaobing Zheng, Wuhan University of Science and Technology, China

Debao Zhou, University of Minnesota Duluth, USA

Dong Yu, Yangtze University, China

Dilbag Singh, New York University, USA

Dragan Peraković, University of Zagreb, Croatia

Grigorios N. Beligiannis, University of Patras, Greece

Israa Al-Barazanchi, University of Warith Al-Anbiyaa, Irap

Javier Gozalvez, Universidad Miguel Hernandez de Elche (UMH), Spain

June Tay, Singapore University of Social Sciences, Singapore

K. Vasudevan, Indian Institute of Technology Kanpur, India

Luís Barreto, Insituto Politécnico de Viana do Castelo, Portugal

Mehdi Gheisari, Islamic Azad University, Iran and Shenzhen BKD Co.LTD, China

Minwoo Jake Lee, University of North Carolina Charlotte, USA

Muath Obaidat, City University of New York, USA

Nasir Saeed, United Arab Emirates University (UAEU), UAE

Pascal Lorenz, University of Haute Alsace, France

Pavel Loskot, ZJU-UIUC Institute, China

Rao Li, University of South Carolina Aiken, USA

Satyendra Kumar Mishra, Space and Resilient Communications and Systems (SRCOM), Center

Technologic de Telecomunicacions de Catalunya (CTTC), Spain

Sérgio D. Correia, Portalegre Polytechnic University, Portugal

Shabir Ahmad Parah, University of Kashmir, India

Shashikant Patil, ATLAS SkillTech University, India

Siwei Zeng, Clemson University, USA

Smmain Femmam, UHA University, France

Soumi Dutta, Sister Nivedita University, India

Sridhar Iyer, KLE Technological University, India

Stelvio Cimato, University of Milan, Italy

Yunfeng Wang, Vice Dean of the School of Information Engineering, Nanyang Institute of Technology,
China

Zhensen Gao, Guangdong University of Technology, China

Organization

6th International Conference on Telecommunications, Optics and Computer Science 第六届电信、光学、计算机科学国际会议

Hosted by

Nanyang Institute of Technology, China

Organized by

School of Information Engineering, Nanyang Institute of Technology, China

International Association of Applied Science and Technology (IAAST)

WeResearch

General Chairs

Witold Pedrycz, University of Alberta, Canada; Fellow of the Royal Society of Canada (RSC); Foreign Fellow of the Polish Academy of Sciences

Sos S. Agaian, The City University of New York, USA

Co-Chair

Shiqian Wu, Institute of Advanced Displays and Imaging, Henan Academy of Sciences, China

Organizing Committee Chairs

Jun Niu, Dean of the School of Information Engineering, Nanyang Institute of Technology, China

Yanling Cai, Zhengzhou University, China

Technical Program Chairs

Lei Chen, Shandong University, China

Rena Huang, Rensselaer Polytechnic Institute, USA

Yang Yue, Xi'an Jiaotong University, China

Technical Program Members

Aarti Amod Agarkar, Vishwakarma institute of Technology, India

Anand Nayyar, Duy Tan University, Viet Nam

Aizaz Chaudhry, Carleton University, Canada

Artur Czerwinski, Nicolaus Copernicus University in Torun, Poland

Bharat S. Chaudhari, MIT World Peace University, India

Chaobing Zheng, Wuhan University of Science and Technology, China

Dayong Huang, Vice Dean of the School of Information Engineering, Nanyang Institute of Technology, China

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Debao Zhou, University of Minnesota Duluth, USA

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Smam Femmam, UHA University, France

Soumi Dutta, Sister Nivedita University, India

Sridhar Iyer, KLE Technological University, India

Stelvio Cimato, University of Milan, Italy

Organization

第六届电信、光学、计算机科学国际会议

6th International Conference on Telecommunications, Optics and Computer Science

Yunfeng Wang, Vice Dean of the School of Information Engineering, Nanyang Institute of Technology,
China

Zhensen Gao, Guangdong University of Technology, China

会议日程

第六届电信、光学、计算机科学国际会议

6th International Conference on Telecommunications, Optics and Computer Science

南阳理工学院第二报告厅（地址：河南省南阳市长江路 80 号）

腾讯会议室链接: <https://meeting.tencent.com/dm/ICjqSX8x7llj>

会议室 ID: 442-974-620

2025 年 11 月 21 日

15:00-18:00

会议报到、领取会议材料

2025 年 11 月 22 日

08:00-08:45

会议报到、领取会议材料

09:00-09:10

会议开幕
领导致辞

09:10-09:20

会议合照

09:20-09:50

主讲报告 1:
武世虔, 河南科学院新型显示技术研究所副所长、首席科学家
题目: 眼睛: 一种新的交互式工具

09:50-10:20

主讲报告 2:
潘根才, 河南大学教授
题目: 稀土掺杂卤化物钙钛矿发光及应用研究

10:20-10:50

主讲报告 3:
Rena Huang, 美国伦斯勒理工学院副教授
题目: 热弹性和节能型电子-光子人工智能加速器

10:50-11:10

茶歇 | 墙报展示

11:10-11:40

主讲报告 4:
陈雷, 山东大学副教授
题目: 基于深度学习的视频异常行为检测

11:40-12:10

主讲报告 5:
Witold Pedrycz, 加拿大阿尔伯塔大学教授、加拿大皇家科学院院士、波兰科学院外籍院士
题目: 信息驱动的机器学习: 探索新方向

12:10-14:00

午餐

会议日程

第六届电信、光学、计算机科学国际会议

6th International Conference on Telecommunications, Optics and Computer Science

14:00-14:25	主题报告 1: 陈恩庆, 郑州大学教授 题目: 智能信号与信息处理理论与应用前沿——从信号处理到人工智能
14:25-14:50	主题报告 2: 路新华, 南阳理工学院副教授 题目: 变分推理——因子图与消息传递方法
14:50-15:15	主题报告 3: Pascal Lorenz, 法国阿尔萨斯大学教授 题目: 下一代无线网络架构
15:15-15:40	主题报告 4: 汪宝, 南阳理工学院副教授 题目: 腔磁振子及其相关量子系统中的非线性效应
15:40-15:50	茶歇
15:50-16:15	主题报告 5: Artur Czerwinski, 波兰托伦哥白尼大学助理教授 题目: 基于卫星的量子互联网: 太空光学技术
16:15-16:40	主题报告 6: Mohamed-Slim Alouini, 沙特阿拉伯阿卜杜拉国王科技大学副教授 题目: 充分挖掘平流层的全部潜力
16:40-16:55	口头汇报 1: 孙振世, 南阳理工学院 题目: 基于激光干涉原理的超长距离分布式光纤扰动精准检测研究
16:55-17:10	口头汇报 2: 汪书怡, 国防科技大学 题目: 工作波长为 1.94 和 2.33 μm 的全光纤双波长掺铒 ZBLAN 光纤放大器
17:10	优秀颁奖&闭幕

Program

第六届电信、光学、计算机科学国际会议

6th International Conference on Telecommunications, Optics and Computer Science

Second Lecture Hall, Nanyang Institute of Technology Address: No. 80 Changjiang Road, Nanyang, Henan VooV Meeting: https://meeting.tencent.com/dm/1CjqSX8x7llj Meeting ID: 442-974-620	
November 21, 2025	
15:00-18:00	Onsite-Registration
November 22, 2025	
08:00-08:45	On-site Registration
09:00-09:10	Opening & Welcome Speech
09:10-09:20	Group Photo
09:20-09:50	Keynote Speech 1: Prof. Shiqian Wu, Institute of Advanced Displays and Imaging, Henan Academy of Sciences, China Title: Eyes: A New Interactive Tool
09:50-10:20	Keynote Speech 2: Prof. Gencai Pan, Henan University, China Title: Research on the Luminescence and Applications of Rare Earth-Doped Halide Perovskites
10:20-10:50	Keynote Speech 3: Assoc. Prof. Rena Huang, Rensselaer Polytechnic Institute, USA Title: Thermally Resilient and Energy-Efficient Electronic – Photonic AI Accelerator
10:50-11:10	Tea Break Poster
11:10-11:40	Keynote Speech 4: Assoc. Prof. Lei Chen, Shandong University, China Title: Deep Learning for Abnormal Behavior Detection in Video
11:40-12:10	Keynote Speech 5: Prof. Witold Pedrycz, University of Alberta, Canada; Fellow of the Royal Society of Canada (RSC); Foreign Fellow of the Polish Academy of Sciences Title: Informed Machine Learning: Exploring New Directions
12:10-14:00	Lunch Break

Program

第六届电信、光学、计算机科学国际会议

6th International Conference on Telecommunications, Optics and Computer Science

14:00-14:25	Invited Speech 1: Prof. Enqing Chen, Zhengzhou University, China Title: Frontiers in Intelligent Signal and Information Processing Theory and Applications: From Signal Processing to Artificial Intelligence
14:25-14:50	Invited Speech 2: Assoc. Prof. Xinhua Lu, Nanyang Institute of Technology, China Title: Variational Reasoning-Factor Graphs and Message Passing Methods
14:50-15:15	Invited Speech 3: Prof. Pascal Lorenz, University of Haute-Alsace, France Title: Architectures of Next Generation Wireless Networks
15:15-15:40	Invited Speech 4: Assoc. Prof. Bao Wang, Nanyang Institute of Technology, China Title: Nonlinear Effects in Cavity Magnons and Related Quantum Systems
15:40-15:50	Tea Break
15:50-16:15	Invited Speech 5: Asst. Prof. Artur Czerwinski, Nicolaus Copernicus University in Torun, Poland Title: Satellite-Based Quantum Internet: Optical Technologies in Space
16:15-16:40	Invited Speech 6: Prof. Mohamed-Slim Alouini, King Abdullah University of Science & Technology, Saudi Arabia Title: Tapping Into the Full Potential of the Stratosphere
16:40-16:55	Oral Presentation 1: Zhenshi Sun, Nanyang Institute of Technology, China Title: Research on Precise Detection of Distributed Fiber Disturbances over Ultra-Long Distances Based on Laser Interference Principle
16:55-17:10	Oral Presentation 2: Shuyi Wang, National University of Defense Technology, China Title: All-Fiber Dual-Wavelength Thulium-Doped ZBLAN Fiber Amplifier Operating at 1.94 and 2.33 μm
17:10	Awards & Closing

地点 Venue

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6th International Conference on Telecommunications, Optics and Computer Science

会议地点：南阳理工学院第二报告厅

地址：河南省南阳市长江路 80 号

Venue: Second Lecture Hall, Nanyang Institute of Technology

Address: No. 80 Changjiang Road, Nanyang, Henan.

