

ICICR2025

2025 2nd International Conference on Intelligent

Computing and Robotics

2025 第二届智能计算与机器人国际会议

会议日程 Conference Program



University of
HUDDERSFIELD
Inspiring tomorrow's professionals



UNIVERSITÉ
HAUTE-ALSACE



中国大连 | Dalian, China

2025 年 5 月 16-18 日 | May 16-18, 2025

目 录

大会简介	1
Introduction	2
组织机构	3
Organization	6
会议日程	9
Program	13
会议地点 Venue	17

2025 第二届智能计算与机器人国际会议 (ICICR2025) 将于 2025 年 5 月 16-18 日在大连召开。本届会议由国际应用科学与技术协会 (IAAST)、微研学术主办, 武汉工程大学、英国哈德斯菲尔德大学、西安理工大学, 法国上阿尔萨斯大学、法国高等计算机、电子及自动化学校 (ESIEA Paris) 协办, 并获得 IEEE 国际机器人与自动化协会技术支持。

会议以“智能计算与机器人”为主题, 旨在为全球从事相关领域的专家、学者及技术人员提供一个交流最新研究成果的平台, 推动智能计算、机器人及其应用领域的技术进步, 并促进行业发展。

大连依山傍海, 景色秀丽, 是中国著名的海滨旅游城市和避暑、疗养、休假胜地。面向烟波浩淼的太平洋, 临海处海湾较多, 礁石错落, 地貌奇特, 构成了以蓝天、碧海、白沙、黑礁为特色的幽雅明丽的海滨风光。

ICICR2025 诚邀广大学者齐聚大连, 参会交流!

The 2025 2nd International Conference on Intelligent Computing and Robotics (ICICR2025) will be in Dalian, China during May 16-18, 2025.

ICICR2025 is organized by International Association of Applied Science and Technology (IAAST), WeResearch, in association with Wuhan Institute of Technology, University of Huddersfield, Xi'an University of Technology, Haute Alsace University, ESIEA Paris, and technical co-sponsored by IEEE RAS.

This conference will provide an international forum for researchers, academicians, professionals, and students from Intelligent Computing and Robotics and other related fields to interact and disseminate information on the latest developments. On behalf of our committee, we invite you to join us for an outstanding ICICR2025 conference!

Dalian is a famous seaside tourist city in China and a resort for summer, recuperation and vacation. It faces the vast Pacific Ocean, there are many bays near the sea, scattered reefs, and strange landforms, forming a quiet and beautiful seaside scenery characterized by blue sky, blue sea, white sand and black reefs.

ICICR2025 looks forward to meeting all the attendees in Dalian!

主办单位：

国际应用科学与技术协会（IAAST）

微研学术

协办单位：

武汉工程大学

英国哈德斯菲尔德大学

西安理工大学

法国上阿尔萨斯大学

法国高等计算机、电子及自动化学校（ESIEA Paris）

技术支持单位：

IEEE 国际机器人与自动化协会

大会主席：

胡豁生教授，英国埃塞克斯大学

苏春翌教授，加拿大康考迪亚大学

联席主席：

吴劲松教授，智利大学

Nikola Kasabov 教授，新西兰奥克兰理工大学

Smain Femmam 教授，法国上阿萨斯大学

Sos Agaian 教授，美国纽约市立大学

出版主席：

何涇沙教授，北京工业大学

组织委员会主席：

张煜东教授，英国莱斯特大学

张葛祥教授，成都信息工程大学

技术委员会主席：

周挥宇教授，英国莱斯特大学

刘晓东教授，英国爱丁堡纳皮尔大学

组织委员会成员：

Alex Mathew, Bethany College, USA

Arun Balodi, Dayananda Sagar University, Bengaluru, India

Guoxin Su, University of Wollongong, Australia

Francesco Zirilli, Sapienza Universita Roma, Italy

Jinfeng Wang, Zhengzhou University, China

Luisa Maria Arvide Cambra, University of Almeria, Spain

Maki Habib, The American University in Cairo, Egypt

Mohd Shakir Md Saat, Universiti Teknikal Malaysia Melaka, Malaysia

Muazzam Ali Khan Khattak, Quaid-i-Azam University, Pakistan

Rong Fei, Xi'an University of Technology, China

Stefano Cirillo, University of Salerno, Italy

Xin Zan, Xi'an Jiaotong University, China

Yousef Farhaoui, Moulay Ismail University, Morocco

Zorica Bogdanovic, University of Belgrade, Serbia

技术委员会成员：

Anand Nayyar, Duy Tan University, Vietnam

Chao Zeng, University of Liverpool, UK

Duc Truong Pham, The University of Birmingham, UK

Gheorghe-Daniel Andreescu, Politehnica University Timisoara, Romania

Grigorios N. Beligiannis, University of Patras – Agrinio Campus, Greece

Gyu Myoung Lee, Liverpool John Moores University, UK

Hamed Taherdoost, University Canada West, Canada

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

Jiahua Zhao, Heilongjiang International University, China

Jingyu Liu, Harbin Normal University, China

Joan Lu, University of Huddersfield, UK

Joshuva Arockia Dhanraj, Dayananda Sagar University, India

Kamran Iqbal, University of Arkansas at Little Rock, USA

Limei Chen, Harbin Vocational and Technical University, China

Minwoo Jake Lee, University of North Carolina Charlotte, USA

Mohd Aliff Afira Bin Hj. Sani, Universiti Kuala Lumpur, Malaysia

Pavel Loskot, ZJU-UIUC Institute, China

Pooja Singh, SIES Graduate School of Technology, India

Prabhat K. Mahanti, University of New Brunswick, Canada

Prashan Premaratne, University of Wollongong, Australia

Raj Mahalingam, Intel Corporation, USA

Satyanarayana Murthy Polisetty, Bank of America, USA

Shabir Ahmad Parah, University of Kashmir, India

Shashikant Patil, Atlas SkillTech University, India

Songmei Yu, Felician University, USA

Sri Harsha Pothineni, Meta Platforms, Inc., USA

Stelvio Cimoto, University of Milan, Italy

Umesh C. Pati, National Institute of Technology, India

Vijayan K. Asari, University of Dayton, USA

Wen-Jer Chang, National Taiwan Ocean University, Taiwan, China

Organizer

International Association of Applied Science and Technology (IAAST)

WeResearch

In Association With

Wuhan Institute of Technology

University of Huddersfield

Xi'an University of Technology

Haute Alsace University

ESIEA Paris

Technical Co-sponsor

IEEE RAS

General Chairs

Huosheng Hu, University of Essex, UK

Chun-Yi Su, Concordia University, Canada

Co-Chairs

Jinsong Wu, Universidad de Chile, Chile

Nikola Kasabov, Auckland University of Technology, New Zealand

Smain Femmam, UHA University, France

Sos Aghaian, City University of New York, USA

Technical Committee Chairs

Huiyu Zhou, University of Leicester, UK

Xiaodong Liu, Edinburgh Napier University, UK

Organizing Committee Chairs

Yu-Dong Zhang, University of Leicester, UK

Gexiang Zhang, Foreign member of Russian Academy of Natural Sciences, Chengdu University of Information Technology, China

Publicity Chair

Jingsha He, Beijing University of Technology, China

Organizing Committee Members

Alex Mathew, Bethany College, USA

Arun Balodi, Dayananda Sagar University, Bengaluru, India

Guoxin Su, University of Wollongong, Australia

Francesco Zirilli, Sapienza Universita Roma, Italy

Jinfeng Wang, Zhengzhou University, China

Luisa Maria Arvide Cambra, University of Almeria, Spain

Maki Habib, The American University in Cairo, Egypt

Mohd Shakir Md Saat, Universiti Teknikal Malaysia Melaka, Malaysia

Muazzam Ali Khan Khattak, Quaid-i-Azam University, Pakistan

Rong Fei, Xi'an University of Technology, China

Stefano Cirillo, University of Salerno, Italy

Xin Zan, Xi'an Jiaotong University, China

Yousef Farhaoui, Moulay Ismail University, Morocco

Zorica Bogdanovic, University of Belgrade, Serbia

Technical Committee Members

Anand Nayyar, Duy Tan University, Vietnam

Chao Zeng, University of Liverpool, UK

Duc Truong Pham, The University of Birmingham, UK

Gheorghe-Daniel Andreescu, Politehnica University Timisoara, Romania

Grigorios N. Beligiannis, University of Patras – Agrinio Campus, Greece

Gyu Myoung Lee, Liverpool John Moores University, UK

Hamed Taherdoost, University Canada West, Canada

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

Jiahua Zhao, Heilongjiang International University, China

Jingyu Liu, Harbin Normal University, China

Joan Lu, University of Huddersfield, UK

Joshuva Arockia Dhanraj, Dayananda Sagar University, India

Kamran Iqbal, University of Arkansas at Little Rock, USA

Limei Chen, Harbin Vocational and Technical University, China

Minwoo Jake Lee, University of North Carolina Charlotte, USA

Mohd Aliff Afira Bin Hj. Sani, Universiti Kuala Lumpur, Malaysia

Pavel Loskot, ZJU-UIUC Institute, China

Pooja Singh, SIES Graduate School of Technology, India

Prabhat K. Mahanti, University of New Brunswick, Canada

Prashan Premaratne, University of Wollongong, Australia

Raj Mahalingam, Intel Corporation, USA

Satyanarayana Murthy Polisetty, Bank of America, USA

Shabir Ahmad Parah, University of Kashmir, India

Shashikant Patil, Atlas SkillTech University, India

Songmei Yu, Felician University, USA

Sri Harsha Pothineni, Meta Platforms, Inc., USA

Stelvio Cimoto, University of Milan, Italy

Umesh C. Pati, National Institute of Technology, India

Vijayan K. Asari, University of Dayton, USA

Wen-Jer Chang, National Taiwan Ocean University, Taiwan, China

会议日程

2025 第二届智能计算与机器人国际会议

2025 2nd International Conference on Intelligent Computing and Robotics

2025 年 5 月 16 日 大连昱圣苑国际酒店大厅（大连沙河口区太原街 6 号）	
15:00-18:00	会议报到
2025 年 5 月 17 日 大连交通大学沙河口校区图书馆多功能厅（大连市沙河口区黄河路 794 号） 线上同步腾讯会议: https://meeting.tencent.com/dm/7z6edsHwgNeA 会议室 ID: 611-832-738	
08:00-09:00	会议报到
09:00-09:20	开幕致辞 校领导致辞
09:20-09:30	会议合影
09:30-10:10	主讲报告 1: 王顺利教授, 内蒙古工业大学电力学院学术院长 报告题目: 智能储能系统多时间尺度状态估计的电子和计算机化应用
10:10-10:50	主讲报告 2: 王曦教授, 瑞典皇家理工学院 报告题目: 人机协作装配的最新进展
10:50-11:10	茶歇 墙报展示
11:10-11:50	主讲报告 3: 冷璐教授, 南昌航空大学 报告题目: 生物特征识别中的集成学习
11:50-14:00	午餐 午休
14:00-14:30	主题报告 1: 汪敏教授, 西南石油大学电气信息学院副院长 报告题目: 从类别不平衡到类别再平衡: 广义主动分层抽样理论框架及其应用
14:30-15:00	主题报告 2: 梁天添副教授, 大连交通大学电气工程学院院长助理 报告题目: 基于人工智能的医学图像研究现状—以舌象辨识为例
15:00-15:30	主题报告 3: 辛文凯博士, 大连交通大学 报告题目: 轨道交通杂散电流入侵变压器物理效应研究
15:30-16:00	主题报告 4: Pascal Lorenz 教授, 法国上阿尔萨斯大学 报告题目: 下一代无线网络架构
16:00-16:10	口头汇报 1: 蔡雨辰, 北京控制工程研究所 汇报题目: 航天控制系统仿真软件的通用设计与应用

会议日程

2025 第二届智能计算与机器人国际会议

2025 2nd International Conference on Intelligent Computing and Robotics

16:10-16:20	口头汇报 2: 贺禧龙, 大连交通大学 汇报题目: 基于高光谱成像和 LSTM 的混凝土氯离子渗透分布检测研究
16:20-16:30	口头汇报 3: 张芷晴, 北师香港浸会大学 汇报题目: 应用机器学习与降维相结合增强入侵检测系统
16:30-16:40	口头汇报 4: 郭阳, 大连交通大学 汇报题目: 基于粒子群优化的智能小车自动泊车
16:40-16:50	口头汇报 5: 黎梓燊, 北京理工大学珠海学院 汇报题目: 具有企业微信通知和阈值预测的实时多线程库存监控和警报系统
16:50-17:00	口头汇报 6: Sergey Fedorov, 俄罗斯国家研究型高等经济大学 汇报题目: 用于软件版本实时安全分析的人工智能驱动多代理系统
17:00-17:10	口头汇报 7: 赖放文, 大连交通大学 汇报题目: 考虑荷电状态约束的电池调频策略研究
17:10-17:20	口头汇报 8: 耿博文, 大连交通大学 汇报题目: 基于变步长扰动观察法隔墙售电控制策略研究
17:20-17:30	口头汇报 9: 蒋仁铭, 大连交通大学 汇报题目: 动车组车轴内壁涡流检测仿真
17:30-17:40	口头汇报 10: 田嘉宇, 大连交通大学 汇报题目: 基于健康状态评估的轴承寿命预测
17:40-18:00	优秀颁奖

会议日程

2025 第二届智能计算与机器人国际会议

2025 2nd International Conference on Intelligent Computing and Robotics

2025 年 5 月 18 日（线上） 腾讯会议: https://meeting.tencent.com/dm/ojIDP6dDsaj9 会议室 ID: 193-663-113	
09:00-09:30	主题报告 1: Xiaodong Liu, 英国爱丁堡龙比亚大学教授 报告题目: 下一代基于物联网的智能系统的挑战和案例研究
09:30-10:00	主题报告 2: Hamed Taherdoost, 加拿大西部大学教授 报告题目: 网络安全从你做起: 构建数字时代的人墙
10:00-10:30	主题报告 3: Anand Nayyar, 越南维新大学教授 报告题目: 检索增强生成 (RAG): 范式、技术和趋势
10:30-11:00	主题报告 4: Umesh Chandra Pati, 印度理工学院教授 报告题目: 使用深度学习技术的基于视频的入侵检测系统
11:00-11:10	口头汇报 1: Reggie Davidrajuh, 挪威斯塔万格大学 汇报题目: 扩展 Petri 网的零测试
11:10-11:20	口头汇报 2: Mshabab Alrizah, 沙特阿拉伯吉赞大学 汇报题目: 检查 GitHub 在过滤列表维护中的作用: 开源广告拦截和隐私保护的挑战和趋势
11:20-11:30	口头汇报 3: Shweta Loonkar, 印度穆克什·帕特尔技术管理与工程学院 汇报题目: 人工智能在检测和缓解网络儿童虐待中的应用: 方法与解决方案
11:30-11:40	口头汇报 4: 朱亚琪, 天津商业大学 汇报题目: 基于改进的 YOLOv5s-PD 模型的缺陷检测方法研究
11:40-11:50	口头汇报 5: 秦磊, 中国机械总院集团青岛分院有限公司 汇报题目: 反平行四边形环四阵列机构的运动分析
11:50-12:00	口头汇报 6: 吴璇, 国网甘肃省电力公司物资公司 汇报题目: 基于霍尔特-温特斯指数平滑法和随机森林的电力物资需求预测

会议日程

2025 第二届智能计算与机器人国际会议

2025 2nd International Conference on Intelligent Computing and Robotics

12:00-12:10	口头汇报 7: 刘志源, 国网甘肃省电力公司物资公司 汇报题目: 基于 Holt-Winters 和 XGBoost 联合方法的电力材料预测
12:10-12:20	口头汇报 8: Khadzhieva L.K., 俄罗斯圣彼得堡国立技术学院 汇报题目: 智能和人工智能系统的神经语言文本识别
12:20-12:30	口头汇报 9: Xudong Zhang, 美国南卡罗来纳上州大学 报告题目: 利用持久同源性特征提高停车贴纸识别准确率
12:30-12:40	口头汇报 10: 朱亚杰, 上海交通大学 汇报题目: 基于音频和文本多模态的意图识别新方法
12:40	会议闭幕

Program

2025 第二届智能计算与机器人国际会议

2025 2nd International Conference on Intelligent Computing and Robotics

May 16, 2025 Dalian Yushengyuan International Hotel (6 Taiyuan St, Shahekou District, Dalian, Liaoning, China)	
15:00-18:00	Onsite Registration
May 17, 2025 Library Multifunctional Hall, Shahekou Campus, Dalian Jiaotong University (794 Huanghe Road, Shahekou District, Dalian, Liaoning, China) VooV Meeting: https://meeting.tencent.com/dm/7z6edsHwgNeA Meeting ID: 611-832-738	
08:00-09:00	On-Site Registration
09:00-09:20	Opening Welcome Speech
09:20-09:30	Group Photo
09:30-10:10	Keynote Speech 1: Prof. Shunli Wang, Inner Mongolia University of Technology, China Title: Electronical and Computerized Application for Multiple Time Scale State Estimation in Smart Energy Storage Systems
10:10-10:50	Keynote Speech 2: Prof. Xi Wang, KTH Royal Institute of Technology, Sweden Title: Recent achievements in human-robot collaboration for assembly
10:50-11:10	Tea Break & Poster
11:10-11:50	Keynote Speech 3: Prof. Lu Leng, Nanchang Hangkong University, China Title: Ensemble Learning in Biometric Recognition
11:50-14:00	Lunch Break
14:00-14:30	Invited Speech 1: Prof. Min Wang, SouthWest Petroleum University, China Title: From Class Imbalance to Class Rebalancing: A Generalized Active Stratified Sampling Theoretical Framework and Its Applications
14:30-15:00	Invited Speech 2: Assoc. Prof. Tiantian Liang, Dalian Jiaotong University, China Title: Research Status of Artificial Intelligence-Based Medical Imaging: Taking Tongue Identification as an Exemplar
15:00-15:30	Invited Speech 3: Dr. Wenkai Xin, Dalian Jiaotong University, China Title: Research on the Physical Effects of Stray Current Intrusion into Transformers in Rail Transit Systems
15:30-16:00	Invited Speech 4: Prof. Pascal Lorenz, University of Haute-Alsace, France Title: Architectures of Next Generation Wireless Networks
16:00-16:10	Oral Presentation 1: Yuchen Cai, Beijing Institute of Control Engineering, China Title: Generalized Design and Application of Simulation Software for Aerospace Control Systems

Program

2025 第二届智能计算与机器人国际会议

2025 2nd International Conference on Intelligent Computing and Robotics

16:10-16:20	Oral Presentation 2: Xilong He, Dalian Jiaotong University, China Title: Detection of Chloride Ion Penetration Distribution in Concrete Based on Hyperspectral Imaging and LSTM
16:20-16:30	Oral Presentation 3: Zhiqing Zhang, Beijing Normal-Hong Kong Baptist University, China Title: Applying machine learning combined with dimensionality reduction to enhance intrusion detection systems
16:30-16:40	Oral Presentation 4: Yang Guo, Dalian Jiaotong University, China Title: Intelligent car automatic parking based on particle swarm optimization
16:40-16:50	Oral Presentation 5: Zishen Li, Beijing Institute of Technology, Zhuhai, China Title: Real-Time Multithreaded Stock Monitoring and Alert System with Enterprise WeChat Notification and Threshold Prediction
16:50-17:00	Oral Presentation 6: Sergey Fedorov, National Research University Higher School of Economics, Russia Title: AI-Driven Multi-Agent System for Real-Time Security Analysis of Software Releases
17:00-17:10	Oral Presentation 7: Fangwen Lai, Dalian Jiaotong University, China Title: Research on Frequency Modulation Strategy of Battery Considering
17:10-17:20	Oral Presentation 8: Bowen Geng, Dalian Jiaotong University, China Title: Research on the control strategy of solar photovoltaic wall electricity sales based on improved variable step disturbance observation method
17:20-17:30	Oral Presentation 9: Renming Jiang, Dalian Jiaotong University, China Title: Simulation of inner wall eddy current test of Electric Multiple Unit axle
17:30-17:40	Oral Presentation 10: Jiayu Tian, Dalian Jiaotong University, China Title: Bearing life prediction based on health status assessment
17:40-18:00	Awards

Program

2025 第二届智能计算与机器人国际会议

2025 2nd International Conference on Intelligent Computing and Robotics

2025 年 5 月 18 日（线上） 腾讯会议: https://meeting.tencent.com/dm/ojIDP6dDsaj9 会议室 ID: 193-663-113	
09:00-09:30	Invited Speech 1: Prof. Xiaodong Liu, Edinburgh Napier University, UK Title: Challenges in the Next Generation of IoT-based Smart Systems and a Case Study
09:30-10:00	Invited Speech 2: Prof. Hamed Taherdoost, University Canada West, Canada Title: Cybersecurity Starts with You: Building a Human Firewall in the Digital Age
10:00-10:30	Invited Speech 3: Prof. Anand Nayyar, Professor, Duy Tan University, Vietnam Title: Retrieval-Augmented Generation (RAG): Paradigms, Technologies and Trends
10:30-11:00	Invited Speech 4: Prof. Umesh Chandra Pati, National Institute of Technology, India Title: Video-based Intrusion Detection System using Deep Learning Techniques
11:00-11:10	Oral Presentation 1: Reggie Davidrajuh, University of Stavanger, Norway Title: Zero Testing for Extended Petri Nets
11:10-11:20	Oral Presentation 2: Mshabab Alrizah, Jazan University, Saudi Arabia Title: Examining GitHub's Role in Filter List Maintenance: Challenges and Trends in Open-Source Ad-Blocking and Privacy Protection
11:20-11:30	Oral Presentation 3: Shweta Loonkar , Mukesh Patel School of Technology Management and Engineering, India Title: Artificial Intelligence in Detecting and Mitigating Online Child Sexual Abuse: Approaches and Solutions
11:30-11:40	Oral Presentation 4: Yaqi Zhu, Tianjin University of Commerce, China Title: The Research on Defect Detection Method Based on the Improved YOLOv5s-PD Model
11:40-11:50	Oral Presentation 5: Lei Qin, Academy of Machinery Science and Technology Group Qingdao Branch Co., Ltd., China Title: Locomotion analysis of antiparallelogram ring four array mechanism
11:50-12:00	Oral Presentation 6: Xuan Wu, State Grid Gansu Electric Power Company Material Company, China Title: Electricity Material Demand Forecasting based on Holt-Winters and Random Forest

Program

2025 第二届智能计算与机器人国际会议

2025 2nd International Conference on Intelligent Computing and Robotics

12:00-12:10	Oral Presentation 7: Zhiyuan Liu, State Grid Gansu Electric Power Company Material Company, China Title: Electric Power Material Forecasting based on the Combined Method of Holt-Winters and XGBoost
12:10-12:20	Oral Presentation 8: Khadzhieva L.K., State National Technical University, Russia Title: Neuro-linguistic textual identification of intelligent and artificial intelligence systems
12:20-12:30	Oral Presentation 9: Xudong Zhang, University of South Carolina Upstate, USA Title: Improve the Identification Accuracy of Parking Stickers with Persistent Homology Features
12:30-12:40	Oral Presentation 10: Yajie Zhu, Shanghai Jiao Tong University, China Title: New Method for Intent Recognition Based on Audio and Text Multimodality
12:40	Closing

会议地点：大连交通大学沙河口校区图书馆多功能厅（距图书馆西门近）

地址：大连市沙河口区黄河路 794 号

Venue: Library Multifunctional Hall, Shahekou Campus, Dalian Jiaotong University (Near the west gate of the library)

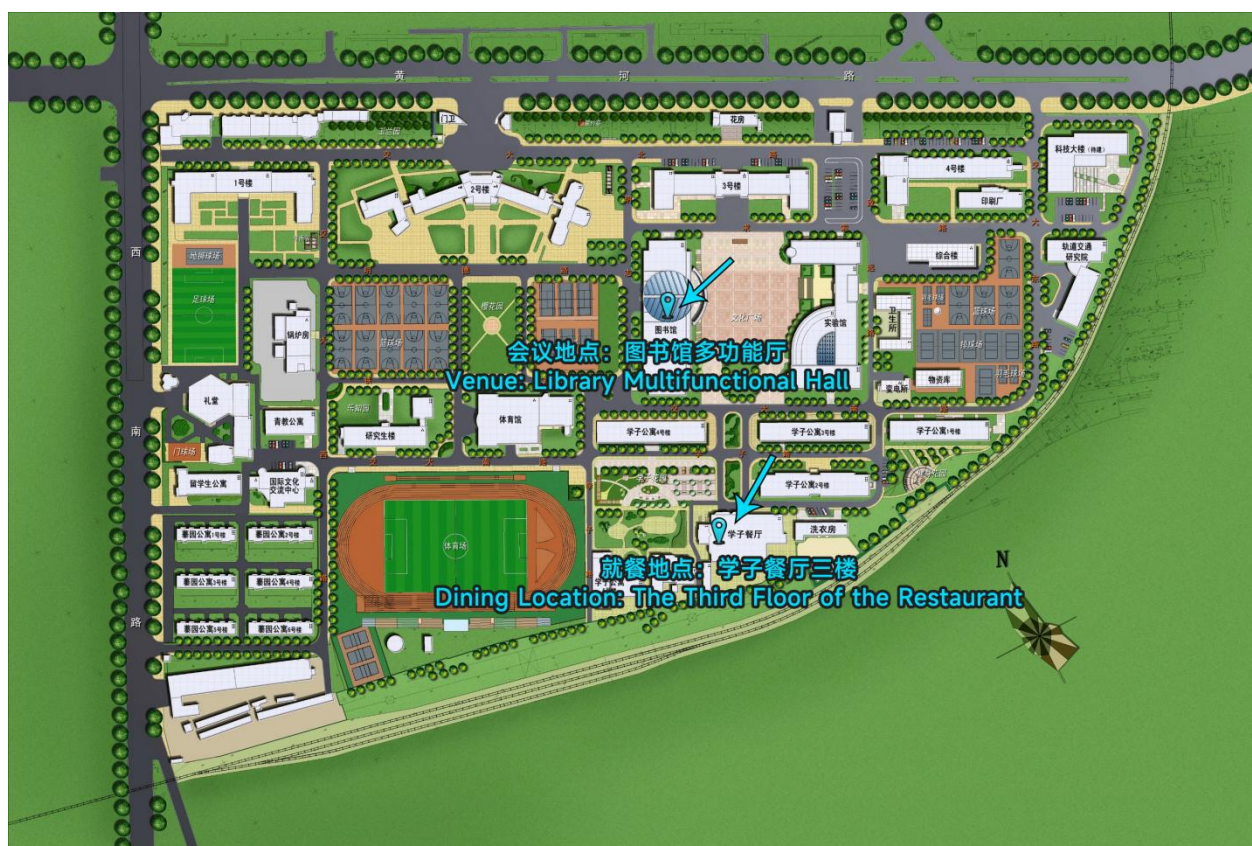
Address: 794 Huanghe Road, Shahekou District, Dalian, Liaoning, China

就餐地点：学子餐厅三楼（5 月 17 日周六中午）

Dining Location: The Third Floor of the Restaurant (For May 17 Lunch)



（图 1：大连交通大学图书馆）



(图 2: 大连交通大学平面图)