

DSA 2022 Session Schedule

All the sessions are based on the time in Beijing, China (UTC+8)

Session Schedule

Thursday, August 4, 2022		
08:30 – 09:00	• Log in to Zoom	Zoom
09:00 – 09:15	• Opening Session	Zoom
09:15 – 10:15	• Keynote Speech I: Some Challenging Issues with Dependability of Intelligent Systems	Zoom
10:15 – 11:15	• Keynote Speech II: Characterization and Automatic Classification of Security Related Bug Reports	Zoom
11:15 – 11:30	• Break	Zoom
11:30 – 12:05	• Session I-A: Testing and Verification I • Session I-B: Quality and Reliability • Session I-C: AI for Software Engineering I	Zoom
12:05 – 12:40	• Session II-A: Testing and Verification II • Session II-B: IoT and Blockchain Applications • Session II-C: AI for Software Engineering II	Zoom
12:40 – 13:15	• Session III-A: Testing and Verification III • Session III-B: Fault Prediction and Localization • Session III-C: Models and Algorithms	Zoom
13:15 – 13:50	• Session IV-A: Software and System Security and Safety • Session IV-B: Vulnerability Detection and Diagnosis • Session IV-C: Architecture, Design, and Modeling	Zoom

Thursday, August 4, 2022		
Special Panel on Dependability Software for Autonomous Vehicles		
08:30 – 09:00	• Log in to Zoom	Zoom
09:00 – 09:15	• Opening Session	Zoom
09:15 – 10:15	• Keynote Speech I: Some Challenging Issues with Dependability of Intelligent Systems	Zoom
10:15 – 11:15	• Keynote Speech II: Characterization and Automatic Classification of Security Related Bug Reports	Zoom
11:15 – 11:30	• Break	Zoom
11:30 – 12:15	• Invited Talk I: Robust Time-sensitive Networking for Autonomous Driving	Zoom
12:15 – 13:00	• Break	Zoom
13:00 – 13:45	• Invited Talk II: Perception Enhancement in Complex Outdoor Scenarios by Spatial-temporal Methods	Zoom
13:45 – 14:30	• Invited Talk III: Data-driven Testing for Perception Components of Autonomous Driving Systems	Zoom
14:30 – 15:15	• Invited Talk IV: Online Verification-based Safety Monitoring and Control Synthesis of Real-time Cyber-physical System	Zoom
15:15 – 16:00	• Invited Talk V: Path Planning for Self-Driving Vehicles: An Online RRT-based Algorithm and Deep Reinforcement Learning Approaches	Zoom

Friday, August 5, 2022		
09:00 – 09:35	<ul style="list-style-type: none"> • Session V-A: Reliability and Testing for Artificial Intelligence Systems I • Session V-B: Intelligent Software Engineering I • Session V-C: Dependable Intelligent Systems 	Zoom
09:35 – 10:10	<ul style="list-style-type: none"> • Session VI-A: Reliability and Testing for Artificial Intelligence Systems II • Session VI-B: Intelligent Software Engineering II • Session VI-C: Reliable Decision and Scheduling I 	Zoom
10:10 – 10:45	<ul style="list-style-type: none"> • Session VII-A: Reliability and Testing for Artificial Intelligence Systems III • Session VII-B: Intelligent Software Engineering III • Session VII-C: Reliable Decision and Scheduling II 	Zoom
10:45 – 11:20	<ul style="list-style-type: none"> • Session VIII-A: Reliability and Testing for Artificial Intelligence Systems IV • Session VIII-B: Intelligent Software Engineering IV • Session VIII-C: Reliable Decision and Scheduling III 	Zoom
11:20 – 11:55	<ul style="list-style-type: none"> • Session IX-A: Wireless Sensor Networks and Communications • Session IX-B: Fast Abstract I • Session IX-C: Fast Abstract III 	Zoom
11:55 – 12:30	<ul style="list-style-type: none"> • Session X-A: System Quality, Semantics, and Environments • Session X-B: Fast Abstract II • Session X-C: Fast Abstract IV 	Zoom

Link to join Zoom meeting on Day 1 (August 4, Thursday)

08:30 am – 14:00 pm

- Opening Session + Keynotes + Sessions I-A + II-A + III-A + IV-A
<https://us02web.zoom.us/j/88633271197?pwd=dHFkNkFtL2Z1NkNnLzJqZFVHc01zUT09>
Meeting ID: 886 3327 1197
Passcode: DSA2022
- Sessions I-B + II-B + III-B + IV-B
<https://us02web.zoom.us/j/82212408061?pwd=U2xMamdKUWlxaUUrRDhPV3B2OTdMUT09>
Meeting ID: 822 1240 8061
Passcode: DSA2022
- Sessions I-C + II-C + III-C + IV-C
<https://us02web.zoom.us/j/89343980957?pwd=RGZYaXFyY3RYN2s5eU1kYzhVT1pQdz09>
Meeting ID: 893 4398 0957
Passcode: DSA2022
- Panel on Dependability Software for Autonomous Vehicles
<https://us02web.zoom.us/j/86101282286?pwd=bkp3dCtNRWNwNGpXY3NDQkYrVmN0dz09>
Meeting ID: 861 0128 2286
Passcode: DSA2022

Link to join Zoom meeting on Day 2 (August 5, Friday)

8:30 am – 14:00 pm

- Sessions V-A + VI-A + VII-A + VIII-A + IX-A + X-A
<https://us02web.zoom.us/j/83352262735?pwd=ZGZhdkI3UGNrelFJMfc0YVpPRXJrZz09>
Meeting ID: 833 5226 2735
Passcode: DSA2022
- Sessions V-B + VI-B + VII-B + VIII-B + IX-B + X-B
<https://us02web.zoom.us/j/89137865794?pwd=ZStSZStyZ25Ock52VHhXRDcxBEFRZz09>
Meeting ID: 891 3786 5794
Passcode: DSA2022
- Sessions V-C + VI-C + VII-C + VIII-C + IX-C + X-C
<https://us02web.zoom.us/j/86219787718?pwd=UURNdHdTNjQyV0s2L290bVhJVUNrdz09>
Meeting ID: 862 1978 7718
Passcode: DSA2022

Instructions for Paper Presentation & Video Preparation

DSA 2022 will be organized in a hybrid mode. Below are the instructions for preparing a video presentation of each accepted paper no matter whether you attend the conference in person or online via Zoom.

- **You have a maximum of 15 minutes** for your presentation. In the beginning of the video, please show your face and give a brief introduction of yourself.
- **The presentation must be in English.**
- The video can be in any of the following 4 formats: mp4, mov, wmv, or avi.
- You should name your video as “Part1-Part2.extension” where Part 1 is your paper ID and Part 2 contains the first 5 words of your paper title. The extension depends on the format of your video, which can be mp4, mov, wmv, or avi.

Your paper ID can be found in the acceptance notification email we sent to you.

- You need to upload your video through the following link

<https://app.oatos.com/link?code=sCRqBLE>

(Password: DSA2022).

- Your videos will be accessible by all the registered attendees. They will watch it before the conference at their own convenience.
- During the conference, each session is focused on Q/A only. You will give **a 5-minute summary** of your paper instead of repeating the entire presentation that is available in your video.

After the summary of each paper in a given session is presented, attendees can ask questions related to any paper in that session. Authors of the corresponding paper will answer the questions.

- If you choose to attend the conference in-person, you will present a 5-minute summary and answer the questions face-to-face with the attendees in a pre-assigned meeting room.
- If you choose the online option, you will do it by logging in to a pre-scheduled live session via Zoom.

If you have any questions including an inquiry about your paper ID, please contact Dongcheng Li at dx1170030@utdallas.edu

Presentation Schedule

Day 1: August 4

Thursday, August 4, 2022		
08:30 – 09:00	<ul style="list-style-type: none"> • Log in to Zoom 	Zoom
09:00 – 09:15	<ul style="list-style-type: none"> • Opening Session • Steering Committee Chair Professor W. Eric Wong (University of Texas at Dallas) • Honorary General Chair Professor Zhiqiu Huang (Nanjing University of Aeronautics and Astronautics) • General Chair Professor David Shepherd (Virginia Commonwealth University) • Program Chairs Professor Lance Fiondella (University of Massachusetts Dartmouth) Professor Jian Dong (Harbin Institute of Technology) • General Secretary Professor Yong Li (Xinjiang Normal University) 	Zoom
09:15 – 10:15	<ul style="list-style-type: none"> • Keynote Speech I <p style="text-align: center;"><i>Some Challenging Issues with Dependability of Intelligent Systems</i></p> <p>Dr. Min Xie Chair Professor, Department of Advanced Design and Systems Engineering City University of Hong Kong Fellow of IEEE Academician of European Academy of Sciences and Arts</p>	Zoom
10:15 – 11:15	<ul style="list-style-type: none"> • Keynote Speech II <p style="text-align: center;"><i>Characterization and Automatic Classification of Security Related Bug Reports</i></p> <p>Dr. Katerina Goseva-Popstojanova Professor, Department of Computer Science and Electrical Engineering West Virginia University</p>	Zoom
11:15 – 11:30	<ul style="list-style-type: none"> • Break 	
11:30 – 12:05 (35 minutes/ 5 papers)	<ul style="list-style-type: none"> • Section I-A: Testing and Verification I <ul style="list-style-type: none"> ○ R44-Test Case Classification via Few-shot Learning Yuan Zhao, Haojie Tang, Quanjun Zhang, Sining Liu, Jin Wang, and Jia Liu ○ R04-RGChaser: A RL-guided Fuzz and Mutation Testing Framework for Deep Learning Systems Yuteng Lu, Kaicheng Shao, Weidi Sun, and Meng Sun ○ R23-Reinforcement Learning Application Testing Method based on Multi-attribute Fusion Lizhi Cai, Jin Wang, Mingang Chen, and Jilong Wang ○ R69-Automated Quality Assessment for Crowdsourced Test Reports based on Dependency Parsing Huan Zhang, Yuan Zhao, Shengcheng Yu, and Zhenyu Chen ○ R45-Interactive Patch Filtering via Test Generation Quanjun Zhang, Xu Zhai, Shicheng Xu, Wanmin Huang, Jingui Zhang, and Yaoming Fan 	Zoom

<p>11:30 – 12:05 (35 minutes/ 6 papers)</p>	<ul style="list-style-type: none"> ● Section I- B: Quality and Reliability ○ <i>R68- A Quantitative Study of Impact of Incentive to Quality of Software Reviews</i> Mingwei Tang, Zhiwei Xu, Yuhao Qin, Cui Su, Yi Zhu, Feifei Tao, and Junhua Ding ○ <i>S43- Improving Code Clone Detection Accuracy and Efficiency based on Code Complexity Analysis</i> Haochen Jin, Zhanqi Cui, Shifan Liu, and Liwei Zheng ○ <i>R53- Construction Method of Equipment Software Defect Knowledge Base</i> Weihua Zhang, Lijin Wu, Zhaowei Xu, and Yang Jian ○ <i>R47- Software Reliability Evaluation System of Ship Information Management System</i> Xueqing Li, Maoyuan Ma, Jing Zhang, Hanting Zhao, Wenxiu Zhang, and Zixin Liu ○ <i>R12- A Novel Method to Estimate Mean Lifetime with Censoring in the Context of Reliability Improvement with Design of Experiments</i> Renyan Jiang, Xiaowei Zhu, Wei Xue, Rangda Wu, and Yu Cao ○ <i>R37- EFSM Model Construction Method for RTL Digital Circuit</i> Xiaochen Li, Ruilian Zhao, and Ying Shang 	<p>Zoom</p>
<p>11:30 – 12:05 (35 minutes/ 6 papers)</p>	<ul style="list-style-type: none"> ● Section I- C: AI for Software Engineering I ○ <i>R55- Automating App Review Classification based on Extended Semantic</i> Wan Zhou, Yong Wang, Yang Qu, and Li ○ <i>R66- Formal Synthesis of Neural Craig Interpolant via Counterexample Guided Deep Learning</i> Wang Lin, Mi Ding, Kaipeng Lin, Guoquan Mei, and Zuohua Ding ○ <i>R02- Modulation Recognition based on Complex Binarized Neural Network</i> JingYan Wang, Lin Qi, and Yu Han ○ <i>R36- Design of a Convolutional Neural Network Accelerator based on PYNQ</i> Haonan Zhang, Jinbo Wang, Lu Kong, Panpan Xue, and Zhaohui Yao ○ <i>S57- Employee Portrait Construction based on Deep Neural Networks</i> Wei Zhu and Rongling Zhou ○ <i>SSRS6- Driver Violation Prediction based on Neural Network</i> Xingguang Zhu, Jiajun Chang, Weikang Li , Bin Yu, Liang Zhao, and Xiaobing Wang 	<p>Zoom</p>
<p>12:05 – 12:40 (35 minutes/ 5 papers)</p>	<ul style="list-style-type: none"> ● Section II-A: Testing and Verification II ○ <i>R31- A Reuse-oriented Clustering Method for Test Cases</i> Ya-Qing Shi, Song Huang, and Jin-Yong Wan ○ <i>R58- Testing Photometric Stereo Applications</i> Ledio Jahaj and Franz Wotawa ○ <i>S56- A Metamorphic Relation Identification Method based on GEP</i> Jie Hong, Jie Zhang, Qi Qiu, Angang Ma, Meng Li, Shiyu Yang, and Helin Gong ○ <i>S54- Metamorphic Testing of Classification Program for the COVID-19 Intelligent Diagnosis</i> Yue Ma, Ya Pan, and Yong Fan ○ <i>R50- Construction of Inductive Property Predicates for Mutable Data Structures</i> Xue-Jian Li and Jun-Yi Wang 	<p>Zoom</p>

<p>12:05 – 12:40 (35 minutes/ 4 papers)</p>	<ul style="list-style-type: none"> • Section II-B: IoT and Blockchain Applications <ul style="list-style-type: none"> ◦ <i>S32- Intelligent Urban Street Lighting System based on IoT Cloud Platform</i> Yujie Wang, Zhi Deng, Kai Tao, Tao Liu, Xianglin Bao, and Bin Cheng ◦ <i>S41- A General Dataset Generator for Industrial Internet of Things using Multi-sensor Information Fusion</i> Mian Wang, Jinlong Sun, Zhiyi Lu, Yu Wang, Yifan Zhang, Jie Zhang, Zhe Zhang, and Guan Gui ◦ <i>S38- Blockchain-based Smart Supply Chain Management</i> Emil Lobachev, Mahmoud Nabil Mahmoud, and Ahmad Patooghy ◦ <i>S07- Energy Efficiency Optimization for Massive MIMO Enabled UAV Communications</i> Xiaohan Ma and Zhenyu Na 	<p>Zoom</p>
<p>12:05 – 12:40 (35 minutes/ 6 papers)</p>	<ul style="list-style-type: none"> • Section II-C: AI for Software Engineering II <ul style="list-style-type: none"> ◦ <i>R13- Feature Envy Detection with Deep Learning and Snapshot Ensemble</i> Minnan Zhang and Jingdong Jia ◦ <i>R32- A Novel Unsupervised Malware Detection Method based on Adversarial Auto-Encoder and Deep Clustering</i> Lanping Zhang, Jie Yin, Jinhui Ning, Yu Wang, Bamidele Adebisi, and Jie Yang ◦ <i>R05- Efficient Malicious Traffic Classification Methods based on Semi-Supervised Learning</i> Xiaoyi Hu, Jinhui Ning, Jie Yin, Jie Yang, Bamidele Adebisi, and Haris Gacanin ◦ <i>RTAIS13- Network Intrusion Detection based on RBF Neural Networks and Fuzzy Cluster</i> Zhiyu Liu , Meishu Luo, and Baoying Ma ◦ <i>ISE27- Weld Image Recognition based on Deep Learning</i> Yaling Zhao, Hongbo Du, Hai Wang, Chunlai Yang, Yongmin Liu, Lei Wang, Manman Xu, Jingsong Gui, Tielong Tan, and Xiangdong Wang ◦ <i>H04- Creativity Evaluation Method for Procedural Content Generated Game Items via Machine Learning</i> Zisen Zhou, Zhongxi Lu, Matthew Guzdial, and Fabricio Goes 	<p>Zoom</p>
<p>12:40 – 13:15 (35 minutes/ 5 papers)</p>	<ul style="list-style-type: none"> • Section III-A: Testing and Verification III <ul style="list-style-type: none"> ◦ <i>TE02- An Ontology-based Knowledge Base System for Military Software Testing</i> Chiyang Gao, Wenbing Luo, and Fei Xie ◦ <i>SSRS02- An Approach for Automatically Generating Traces for Python Programs</i> Xiaoting Zhong, Nan Zhang, and Zhenhua Duan ◦ <i>S09- A Tool for Model Checking Eventual Model Checking in a Stratified Way</i> Moe Nandi Aung, Yati Phyo, Canh Minh Do, and Kazuhiro Ogata ◦ <i>SSRS5- Formal Modeling and Verification of Convolutional Neural Networks based on MSVL</i> Liang Zhao, Leping Wu, Yu Gao, Xiaobing Wang, and Bin Yu ◦ <i>RDS21- Improving Search-based Test Case Generation with Local Search using Adaptive Simulated Annealing and Dynamic Symbolic Execution</i> Dongcheng Li, W. Eric. Wong, Shenglong Li, and Matthew Chau 	<p>Zoom</p>

<p>12:40 – 13:15 (35 minutes/ 5 papers)</p>	<ul style="list-style-type: none"> ● Section III-B: Fault Prediction and Localization ○ <i>R08- Software Failure Prediction based on Thermal Images</i> Yiang Gong, Minyan Lu, Shiyi Kong, and Liang Yan ○ <i>R43- Software Defect Prediction via GCN based on Structural and Context Information</i> Lijin Tang, Chuanqi Tao, Hongjing Guo, and Jingxuan Zhang ○ <i>R10- Automatic Localization of Potential Faults for Java Runtime Exceptions</i> Hongning Miao and Shaoying Liu ○ <i>S36- Automatic Bug Inference via Deep Image Understanding</i> Shengcheng Yu, Wanmin Huang, Jingui Zhang, and Haitao Zheng ○ <i>S50- Blocking Bugs Identification via Binary Relevance and Logistic Regression Analysis</i> Zhihua Chen, Xiaolin Ju, Guilong Lu, and Xiang Chen 	<p>Zoom</p>
<p>12:40 – 13:15 (35 minutes/ 6 papers)</p>	<ul style="list-style-type: none"> ● Section III-C: Models and Algorithms ○ <i>R75- Cooperative Area Coverage Path Planning for Multiple UAVs over Large Areas</i> Furong Zhang and Xiaopan Zhang ○ <i>S58- Modeling Technology of Naval Formation Area Antiaircraft Kill Web based on Event Graph</i> Hongquan Shi, Bin He, Jia Liang, and Yihua Zang ○ <i>R21- Kernel Subspace Clustering based on Block Diagonal Representation and Sparse Constraints</i> Lili Fan, Guifu Lu, Ganyi Tang, and Yong Wang ○ <i>R29- An Improved Dijkstra-based Algorithm for Resource Constrained Shortest Path</i> Pan Liu, Yihao Li, Shili Ai, Cong Luo, and Chengjian Yang ○ <i>S52- Identification Algorithm Framework and Structural Model on Input Pattern of Metamorphic Relations</i> Shiyu Yan, Xiaohua Yang, Zhongjian Lu, Meng Li, Helin Gong, and Jie Liu ○ <i>TE01- Software Quality Evaluation Model based on Multiple Linear Regression and Fuzzy Comprehensive Evaluation Method</i> Chiyang Gao, Wenbing Luo, Jian Wang, and Yingying Zhang 	<p>Zoom</p>
<p>13:15 – 13:50 (35 minutes/ 6 papers)</p>	<ul style="list-style-type: none"> ● Section IV-A: Software and System Security and Safety ○ <i>R70- Security Pattern Detection Through Diagonally Distributed Matrix Matching</i> Aleem Khalid Alvi and Mohammad Zulkernine ○ <i>S51- Software Trustworthiness Evaluation Method based on Relationships Between Criteria</i> Hongwei Tao ○ <i>R20- Automated Security-focused Network Configuration Management: State of the Art, Challenges, and Future Directions</i> Jinglu Xu and Giovanni Russello ○ <i>R64- Guan-fuzz: Argument Selection with Mean Shift Clustering for Multi-argument Fuzzing</i> Han-Lin Lu, Guan Ming Lin, and Shih-Kun Huang ○ <i>R35- Quantitative Analysis of Information Leakage Hardware Trojans in IP Cores</i> Senjie Zhang, Shuai Wang, Jinbo Wang, Shan Zhou, and Zhaohui Yao ○ <i>H01- Revisiting Hazard Analysis Requirements</i> Lin Liu, Zheng Zeng, Yufeng Long, and Hongji Yang 	<p>Zoom</p>

<p>13:15 – 13:50 (35 minutes/ 5 papers)</p>	<ul style="list-style-type: none"> • Section IV-B: Vulnerability Detection and Diagnosis <ul style="list-style-type: none"> ○ <i>R57- FastTransLog: A Log-based Anomaly Detection Method based on Fastformer</i> Yidan Wang and Xuge Li ○ <i>R06- Self-evolving Malware Detection for Cyber Security using Network Traffic and Incremental Learning</i> Xiaohu Xu, Yifei Liang, Xixi Zhang, Yu Wang, Yun Lin, Bamidele Adebisi, Haris Gacanin, and Guan Gui ○ <i>S42- A Survey on Malware Detection based on API Calls</i> Kaixin Chang, Nailiang Zhao, and Liang Kou ○ <i>S08- Bearing Fault Diagnosis based on Fixed Threshold Wavelet Transform and ELM</i> Zhen Zhao, Jingchao Li, Bo Deng, and Yulong Ying ○ <i>S34- A Bearing Fault Diagnosis Method based on Improved LSTM-cascade CatBoost</i> Weicong Jin, Weizhi Liu, Wenxuan Zhang, Xia Fang 	<p>Zoom</p>
<p>13:15 – 13:50 (35 minutes/ 5 papers)</p>	<ul style="list-style-type: none"> • Section IV-C: Architecture, Design, and Modeling <ul style="list-style-type: none"> ○ <i>S40- Time-varying Graph Model for LEO Satellite Network Routing</i> Jiahui Tao, Zhenyu Na, and Ningtao Zhang ○ <i>R46- Application of Software Cost Measurement in the Construction of Ship Information Management System</i> Hanting Zhao, Jing Zhang, Xueqing Li, Zhen An, Lanmin Chen, and Xiqiao Pang ○ <i>R42- RJMM: Real-time Enhancement for Jailhouse Hypervisor on Multi-core Platforms via Memory Isolation</i> Hubin Yang, Jiaming Zhang, Ruochen Shao, Yucong Chen, Rui Zhou, and Qingguo Zhou ○ <i>R49- An Energy-efficient Scheduling based on Q-learning for Energy Harvesting Embedded System</i> Jiayuan Wei, Xingyu Miao, Kehong Xu, Rui Liu, and Yongqi Ge ○ <i>R11- Distributed Sleep Monitoring System with Mobile Terminal</i> Siyuan Gao, Chang Liu, Anze Cheng, and Xu Jiao ○ <i>H02- A Probability Parameter Estimation Tool in C++</i> Xiaopeng Xu, Xiaochun Zhang, and Hongji Yang 	<p>Zoom</p>

Thursday, August 4, 2022 Special Panel on Dependability Software for Autonomous Vehicles		
<p>11:30 – 12:15</p>	<ul style="list-style-type: none"> • Invited Talk I <i>Robust Time-sensitive Networking for Autonomous Driving</i> Dr. Wanli Chang Professor, College of Computer Science and Electronic Engineering Hunan University 	<p>Zoom</p>
<p>12:15 – 13:00</p>	<ul style="list-style-type: none"> • Break 	
<p>13:00 – 13:45</p>	<ul style="list-style-type: none"> • Invited Talk II <i>Perception Enhancement in Complex Outdoor Scenarios by Spatial-temporal Methods</i> Dr. Kai Huang Director, the Institute of Artificial Intelligence and Unmanned Systems of the School of Computer Science Sun Yat-Sen University 	<p>Zoom</p>

13:45 – 14:30	<ul style="list-style-type: none"> • Invited Talk III <p style="text-align: center;"><i>Data-driven Testing for Perception Components of Autonomous Driving Systems</i></p> <p>Dr. Yang Feng Professor, Department of Computer Science and Technology Nanjing University</p>	Zoom
14:30 – 15:15	<ul style="list-style-type: none"> • Invited Talk IV <p style="text-align: center;"><i>Online Verification-based Safety Monitoring and Control Synthesis of Real-time Cyber-physical System</i></p> <p>Dr. Lei Bu Professor, Software Institute Nanjing University</p>	Zoom
15:15 – 16:00	<ul style="list-style-type: none"> • Invited Talk V <p style="text-align: center;"><i>Path Planning for Self-Driving Vehicles: An Online RRT-based Algorithm and Deep Reinforcement Learning Approaches</i></p> <p>Dr. Jianmin Ji Professor, School of Computer Science and Technology University of Science and Technology of China</p>	Zoom

Presentation Schedule

Day 2: August 5

Friday, August 5, 2022		
08:30 – 09:00	<ul style="list-style-type: none"> • Log in to Zoom 	Zoom
09:00 – 09:35 (35 minutes/ 5 papers)	<ul style="list-style-type: none"> • Section V-A: Reliability and Testing for Artificial Intelligence Systems I <ul style="list-style-type: none"> ○ RTAIS01-Trustworthy Protection Technology for Industrial Internet Lijin Wu, Yaming Zhang, Zehua Shen, Yang Jian, and Longli Tang ○ RTAIS08- The Correlation between Training Set Perturbations and Robustness for CNN Models Zili Wu, Jun Ai, Minyan Lu, Jie Wang, and Liang Yan ○ RTAIS02- Autonomous Evaluation Method of Unmanned Equipment based on OODA-I Framework Junshan Xue and Yu Jiang ○ RTAIS03-Speech Instruction Recognition Method based on Stacking Ensemble Learning Jun Zhao, Qingguo Yan, Qinwei Dong, Xianguang Zha, Jun Wu, Zejia He, Xindong Zhao, and Xiaowen Zhang ○ RTAIS07-Prioritization Method of Test Data for Intelligent Software based on Multi-objective Optimization Chunyan Xia, Yifan Huang, Song Huang, Changyou Zheng, and Yutong Wang 	Zoom
09:00 – 09:35 (35 minutes/ 5 papers)	<ul style="list-style-type: none"> • Section V-B: Intelligent Software Engineering I <ul style="list-style-type: none"> ○ ISE01- Student Expression Recognition in Smart Education Environment based on Convolutional Neural Network Hao Yang, Cheng Peng, Ruirui Sun, Yujun Zhou, and Xiaobo Cui ○ ISE05- Towards Exploring the Engineering Education Certification on Data Science and Big Data Technology Specialty: A Case Study of Suzhou University in China Zhiwei Zhang, Haifeng Xu, Aidong Fang, Lin Cui, Xiaoyin Wu, and Yang Bai ○ ISE07- Named Entity Recognition in Chinese E-commerce Domain based on Multi-head Attention Hongliang Mao, Azragul Yusup, Yifei Ge, and Degang Chen ○ ISE08- Chinese Electronic Medical Record Named Entity Recognition based on BERT-WWM-IDCNN-CRF Yingjie Cao and Azragul Yusup ○ ISE09- Dual-branch Attention Detection Network for Scene Text Detection Ronghua Jiang, Zhandong Liu, Ke Li, and Lu Liang 	Zoom
09:00 – 09:35 (35 minutes/ 4 papers)	<ul style="list-style-type: none"> • Section V-C: Dependable Intelligent Systems <ul style="list-style-type: none"> ○ DeIS03- Fault Diagnosis and Location of Quadrotor UAV Actuator based on ESO-DF Weize Shang, Jia Song, Shaojie Ai, and Kai Zhao ○ DeIS07- Simulink Model Static Analysis Results based on Abstract Interpretation Yuting Yang, Rui Wang, Youchen Wang, Xu Miao, Bing Liu, and Shan Jiang ○ DeIS09- Adaptive Random Testing based on the Modified Metric-memory Tree and Information Entropy Jinfu Chen, Haibo Chen, Yiming Wu, Chengying Mao, and Saihua Cai ○ DeIS11- Test Case Prioritization for Deep Neural Network Zhonghao Pan, Shan Zhou, Jianmin Wang, Jinbo Wang, Jiao Jia, and Yang Feng 	Zoom

<p>09:35 – 10:10 (35 minutes/ 5 papers)</p>	<ul style="list-style-type: none"> ● Section VI-A: Reliability and Testing for Artificial Intelligence Systems II <ul style="list-style-type: none"> ○ <i>RTAIS30- Software Operation Simulation Method based on Complex Network Game</i> Xiaoying Huang, Rui Yin, Wu Liu, and Hong Zhang ○ <i>RTAIS18- A UAV Cooperative Formation Capability Evaluation Method</i> Pengqi Wang, Yuan Shi, Lingzhong Meng, Shuting Kang, Yunzhi Xue, and Liangliang Yu ○ <i>RTAIS19- Evaluating the Robustness of Object Detection in Autonomous Driving System</i> Xiang Bi, Hui Gao, He Chen, Pengqi Wang, and Chenghao Ma ○ <i>RTAIS20- Generating Autonomous Driving Test Scenarios based on OpenSCENARIO</i> He Chen, Hongping Ren, Rui Li, Guang Yang, and Shanshan Ma ○ <i>RTAIS09- A Quantitative Measurement Method of Code Quality Evaluation Indicators based on Data Mining</i> Yikang Shao, Wu Liu, Jun Ai, and Chunhui Yang 	<p>Zoom</p>
<p>09:35 – 10:10 (35 minutes/ 5 papers)</p>	<ul style="list-style-type: none"> ● Section VI-B: Intelligent Software Engineering II <ul style="list-style-type: none"> ○ <i>ISE10- Intelligent Mineral Identification and Classification based on Vision Transformer</i> Xiaobo Cui, Cheng Peng, and Hao Yang ○ <i>ISE11- A Dual-channel Text Classification Model based on an Interactive Attention Mechanism</i> Wei Han and Cheng Peng ○ <i>ISE12- Constrained Multilinear Multi-view Subspace Representation Learning for Clustering based on Tensor Nuclear Norm</i> Rong Tang and Gui-Fu Lu ○ <i>ISE13- Face Image Recognition Algorithm based on Singular Value Decomposition</i> Jiakang Tang, Lin Cui, Zhenggao Pan, Chengfang Tan, Shanshan Li, and Weijie Wang ○ <i>ISE15- Speech Separation based on As3-2mix Hybrid Strategy Combined Training Convolutional Time Domain Neural Network</i> Pengxu Wang and Haijun Zhang 	<p>Zoom</p>
<p>09:35 – 10:10 (35 minutes/ 5 papers)</p>	<ul style="list-style-type: none"> ● Section VI-C: Reliable Decision and Scheduling I <ul style="list-style-type: none"> ○ <i>RDS02- Local Matrix Stack Graph Convolutional Networks for Classification</i> Jian Kong, Xuehan Zhong, and Mingli Ding ○ <i>RDS11- Multi-Agents Interaction Approach based on Graph Network and Reinforcement Learning</i> Lian Liu and Zimeng Wang ○ <i>RDS03- Multi-scale Graph Aggregation based Ship Target Recognition</i> Wei Cui, Ziwei Wang, Huilin Zhao, Cong Xia, Xing Xu, Zhanyun Feng, Weijie Wu, Yuanjie Hao, Jie Li, Jin Wang, and Jiale Chen ○ <i>RDS04- Comparison of Image Feature Detection Algorithms</i> Fan Xu, Xia Liu, Yanli Cui, Mingdie Yan, and Zhongyuan Lai ○ <i>RDS06- Task Scheduling for Warship Formation Air Defense</i> Zheng Tang and Xiaopan Zhang 	<p>Zoom</p>

<p>10:10 – 10:45 (35 minutes/ 5 papers)</p>	<ul style="list-style-type: none"> ● Section VII-A: Reliability and Testing for Artificial Intelligence Systems III <ul style="list-style-type: none"> ○ <i>RTAIS22- A High Precision Annotation Method for Vision Simulation Data of Autonomous Vehicle</i> Guang Yang, Pengqi Wang, Yuan Shi, Qian Dong, and Weiyu Liu ○ <i>RTAIS23- Autonomous Evaluation of Unmanned Vehicles: A Survey</i> Rui Li, Feifan Dai, Lingzhong Meng, and Qian Dong ○ <i>RTAIS24- A Survey of Autonomous Driving Scenarios and Scenario Databases</i> Hongping Ren, Hui Gao, He Chen, and Guangzhen Liu ○ <i>RTAIS25- Automatic Driving Scene Sampling Method based on Key Parameter Identification</i> Yunxiu Chen, Qian Dong, Guangzhen Liu, Hongping Ren, and Yunzhi Xue ○ <i>RTAIS26- Intelligent Software Testing based on Visual Feedback</i> Xinyue Wu, Hong Zhang, Tao Shi, Congran Zhang, and Liang Yan 	<p>Zoom</p>
<p>10:10 – 10:45 (35 minutes/ 5 papers)</p>	<ul style="list-style-type: none"> ● Section VII-B: Intelligent Software Engineering III <ul style="list-style-type: none"> ○ <i>ISE16- Improved Deep Bi-directional Transformer Keyword Extraction based on Semantic Understanding of News</i> Rui Cheng and Haijun Zhang ○ <i>ISE19- Chinese Psychological QA Database and its Research Problems</i> Youren Chen, Yong Li, and Ming Wen ○ <i>ISE20- Space-time Constraint Resources Modeling and Safety Verification Method for Automated Vehicles</i> Yi Zhu, Xiaoying Chen, and Yu Zhao ○ <i>ISE21- Analysis and Verification of Bisimulation Relationship for Learning Time-behavior Sequence</i> Shu Feng, Yi Zhu, Mei Song, and Yuxiang Gao ○ <i>ISE22- A Software Failure Mode Analysis Method based on Test Knowledge Graph</i> Wansheng Yang, Chi Hu, and Siyou Ma 	<p>Zoom</p>
<p>10:10 – 10:45 (35 minutes/ 5 papers)</p>	<ul style="list-style-type: none"> ● Section VII-C: Reliable Decision and Scheduling II <ul style="list-style-type: none"> ○ <i>RDS07- WebGIS-based Catering Industry Entrepreneurial Decision-making System</i> Liang Zhou, Dongwei Yu, and Hua Li ○ <i>RDS09- Improvement of Path Planning Algorithm based on Small Step Artificial Potential Field Method</i> Mingwei Shi and Junfeng Nie ○ <i>RDS12- Multi-UAV Path Planning Model with Multiple Battery Recharge Points</i> Mengjie Shan and Xiaopan Zhang ○ <i>RDS13- Modeling and Solution of Spatio-temporal Collaborative Planning in Joint Operations based on Temporal Constraint Network</i> Junfeng Nie and Xingjun Chen ○ <i>RDS15- The Tessi Clergy Algorithm Inspired by Potential Gaming Behavior in the Hunt for Geo-data</i> Ziyang Weng, Shuhao Wang, Weixin Yan, and Guangwei Zhang 	<p>Zoom</p>

<p>10:45 – 11:20 (35 minutes/ 5 papers)</p>	<ul style="list-style-type: none"> ● Section VIII-A: Reliability and Testing for Artificial Intelligence Systems IV <ul style="list-style-type: none"> ○ <i>RTAIS29- A Software Multi-fault Locating Technique based on Space Shrinkage</i> Mingxing Zhang, Shihai Wang, and Weiguo Qiu ○ <i>RTAIS05- Task-driven Dialogue System based on Dynamic Intention Capture</i> Jun Wu, Qingguo Yan, Qinwei Dong, Xianguang Zha, Lin Cui, Xindong Zhao, Wei Dai, and Chong Luo ○ <i>RTAIS06- Keyless Entry Security System based on Gait Context</i> Guoda Wang, Miao Zhang, Yaozong Hu, and Zhaofeng Ma ○ <i>RTAIS11- Nautical Chart Algorithms: A Feedback Strategy to Consider Knowledge Data Production Behavior</i> Ziyang Weng and Shuhao Wang ○ <i>RTAIS12- A Software Defect Location Method based on Static Analysis Results</i> Haoxiang Shi, Wu Liu, Jingyu Liu, Jun Ai, and Chunhui Yang 	<p>Zoom</p>
<p>10:45 – 11:20 (35 minutes/ 6 papers)</p>	<ul style="list-style-type: none"> ● Section VIII-B: Intelligent Software Engineering IV <ul style="list-style-type: none"> ○ <i>ISE23- Analysis of Regional Talent Demand based on Recruitment Website Text Mining</i> Longmao Hu and Bingwu Fang ○ <i>ISE24- Understanding Security Issues based on App Comment Analysis</i> Mengyao Chen, Chuanqi Tao, and Hongjing Guo ○ <i>ISE26- Campus Indoor and Outdoor Positioning System based on GPS and Wi-Fi</i> Zhao Shi, Zhi Deng, Wei Zheng, and Ning Li ○ <i>ISE28- Research on Key Technologies of Human Upper Limb Bone Diagnosis based on Convolutional Neural Network</i> Hongbo Du, Yaling Zhao, Hai Wang, Chunlai Yang, Yongmin Liu, Lei Wang, Manman Xu, Jingsong Gui, Tielong Tan, and Xiangdong Wang ○ <i>ISE30- Adaptive Weight Structure Representation for Multi-view Subspace Clustering</i> Shouhang Wang, Yong Wang, and Wenge Le ○ <i>ISE31- UGDA: Data Augmentation Methods for Uyghur Language Named Entity Recognition</i> Yifei Ge, Azragul Yusup, Degang Chen, Hongliang Mao, and Yingjie Cao 	<p>Zoom</p>
<p>10:45 – 11:20 (35 minutes/ 5 papers)</p>	<ul style="list-style-type: none"> ● Section VIII-C: Reliable Decision and Scheduling III <ul style="list-style-type: none"> ○ <i>RDS16- Understanding Rembrandt: Directed Knowledge Improves Robustness and Evolution of Facial Phenotype Modeling</i> Ziyang Weng, Shuhao Wang, and Weixin Yan ○ <i>RDS17- Relation Extraction on the Wargame based on Pre-trained Models</i> Dongpu Sun and Su Qi ○ <i>RDS18- Research and Analysis of Physical Health Test for Students based on C4.5 Algorithm in Universities with Industry Characteristics</i> Yutao Sun, Yuan Fu, and Tianyi Xu ○ <i>RDS19- Forest Fire Spread Prediction Method based on BP Neural Network</i> Binhao Li, Jingwen Zhong, Guoliang Shi, and Jie Fang ○ <i>RDS14- The Intelligent Pelagic Communication System Architecture of the Fleet based on UAV Swarm Relay</i> Yuxuan Yan, Xingjun Chen, Rui Li, and Yujian Jiang 	<p>Zoom</p>
<p>11:20 – 11:55 (35 minutes/ 4 papers)</p>	<ul style="list-style-type: none"> ● Section IX-A: Wireless Sensor Networks and Communications <ul style="list-style-type: none"> ○ <i>R26- LSTM Network-based SNR Estimator for DS-UWB Wireless Sensor Network</i> Qingzhi Liu, Zhendong Yin, Mingyang Wu, Zhilu Wu, and Zhijiang Xu 	<p>Zoom</p>

	<ul style="list-style-type: none"> ○ <i>S46- A Privacy-preserving Approach to Distributed Set-membership Estimation over Wireless Sensor Networks</i> Xuefeng Yang, Li Liu, Yinggang Zhang, Yihao Li, Pan Liu, and Shili Ai ○ <i>R19- Prototypical Network for Few-shot Signal Recognition</i> Wang Hanhong, Qi Lin, Han Yu, and Lin Yun ○ <i>R16- Spectrum Completion based on HaLRTC</i> Sun Lu and Lin Yun 	
11:20 – 11:55 (35 minutes/ 6 papers)	<ul style="list-style-type: none"> ● Section IX-B: Fast Abstract I ○ <i>R33- A Framework for Formal Transformation and Analysis of Smart Contract Code</i> Hanjie Dong, Yaqiong He, Hongwei Tao, and Qianheng Duan ○ <i>R40- Software Vulnerability Mining Technology of Shipbuilding Industry based on Dynamic Binary Code Analysis</i> Bojiang Liu, Lijin Wu, Xiaomei Shen, Wei He, and Xinyu Han ○ <i>R52- Evaluation Method of Intelligent Manufacturing Capability Maturity</i> Ruizhi Qiu, Chuan Lv, and Yuxue Jin ○ <i>S11- Spectrum Allocation Algorithm based on Improved Wolf Swarm Algorithm</i> Chenggang Cao and Kuixian Li ○ <i>S21- Cognitive Radio Spectrum Sensing Technology</i> Yandie Yang ○ <i>FA1- Online Learning based Self-updating Incremental Malware Detection Model</i> Donghui Zhao, Liang Kou, and Jilin Zhang 	Zoom
11:20 – 11:55 (35 minutes/ 6 papers)	<ul style="list-style-type: none"> ● Section IX-C: Fast Abstract III ○ <i>FA10- A High Safety Spherical Flying Robot based on Gimbal Mechanism</i> Itsuki Miura, Bin Zhang, and Hun-ok Lim ○ <i>FA11- Development of an Octocopter Drone for Accompanying and Carrying Objects</i> Shunsuke Wakamatsu, Bin Zhang, and Hun-ok Lim ○ <i>FA12- Improved Convolutional Neural Network based Feature Extraction Method</i> Yuanyuan Han, Jingchao Li, Jialan Shen, and Bin Zhang ○ <i>FA14- Software Defect Prediction based on Bayesian Optimization Random Forest</i> Yingyan Shen, Shaojie Hu, Siqi Cai, and Mincheng Chen ○ <i>FA16- Unsupervised Domain Adaptation based Modulation Classification for Overlapped Signals</i> Rui Zhang, Zhendong Yin, Zhutian Yang, Zhilu Wu, and Yanlong Zhao ○ <i>FA17- Mars Exploration Aided by Intelligent Reflecting Surface</i> Hongjun Zhang, Zhendong Yin, Yanlong Zhao, and Zhilu Wu 	Zoom
11:55 – 12:30 (35 minutes/ 5 papers)	<ul style="list-style-type: none"> ● Section X-A: System Quality, Semantics, and Environments ○ <i>SSRS01- An Improved Visual Recognition Model of Interference Noise Image</i> Tse-Chuan Hsu, William Cheng-Chung Chu, and Dong-Meau Chang ○ <i>H03- An Improved Dissimilarity based Approach to Semantic Similarity Calculation</i> Hui Guan, Tianyu Ma, and Guangwei Wang ○ <i>RT01- Chaos Driven Development for Software Robustness Enhancement</i> Ning Luo and Linlin Zhang ○ <i>RT02- Personalized Learning Task Assignment</i> Wei Zhu and Rongling Zhou ○ <i>RT03- Precise Epidemic Control based on GeoHash</i> Youwei Huang, Feng Lu, Xiaolong Sang, Bin Hu, and Jiachun Tao 	Zoom

<p>11:55 – 12:30 (35 minutes/ 6 papers)</p>	<ul style="list-style-type: none"> ● Section X-B: Fast Abstract II ○ <i>FA02- A Model for Malware Detection Method based on API call Sequence Clustering</i> Zhijie Wu, Jilin Zhang, and Liang Kou ○ <i>FA03- Parasitic Covert Adversarial Attack on Deep Learning based Modulation Recognition</i> Mingqian Liu and Hongyi Zhang ○ <i>FA04- Adversarial Attacks on Deep Neural Network based Modulation Recognition</i> Mingqian Liu and Zhenju Zhang ○ <i>FA06- Four Rules for Converting Complex Loops to Regular Expressions</i> Pan Liu, Yihao Li, Shili Ai, and Wenjie Zhang ○ <i>FA08- Transform Domain End-to-end Learning Communication System</i> Cheng Chang, Hui Zhou, Chao He, Zilong Zhao, and Wulong Li ○ <i>FA09- Malware API Sequence Detection Model based on Pre-trained BERT in Professional Domain</i> Rongheng Xu, Jilin Zhang, and Li Zhou 	<p>Zoom</p>
<p>11:55 – 12:30 (35 minutes/ 6 papers)</p>	<ul style="list-style-type: none"> ● Section X-C: Fast Abstract IV ○ <i>FA18- Adversarial Attacks in DNN-based Modulation Recognition: A Preliminary Study</i> Yi Zhao, Wenjing Yuan, Yinghua Huang, and Zhenyu Chen ○ <i>FA19- Machine Learning Algorithms for New Energy Vehicles: A Brief Survey</i> Yinghua Huang, Wenjing Yuan, Yi Zhao, and Huan Huang ○ <i>FA20- A LDPC Decoding Algorithm based on Convolutional Neural Network</i> Jiamei Gao, Bo Zhang, Bin Wang, and Yang Liu ○ <i>FA21- Vehicular High-definition Maps Cache based on Dew Computing</i> Hongxuan Li, Jiaxin Zhang, and Liang Zhao ○ <i>FA22- Multi Feature Modulation Signal Recognition based on Deep Learning</i> Zhuo Zheng ○ <i>FA23- A Categorical Modelling Framework for Multi-robot Systems in Manufacturing</i> Huihui Zhou, Wang Lin, and Zuohua Ding 	<p>Zoom</p>