

DSA 2021 Session Schedule

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

Link to join Zoom meeting on Day 1 (September 11, Saturday)

08:30 am – 12:10 pm (noon)

Zoom Link:

<https://us02web.zoom.us/j/81109890126?pwd=Rlh1cUZ4cVBBRE9OWk1hWFE5UityUT09>

Meeting ID: 811 0989 0126

Passcode: DSA2021

Link to join Zoom meeting on Day 2 (September 12, Sunday)

8:30 am - 11:30 am

Groups 2, 3, and 4

Zoom Link:

<https://us02web.zoom.us/j/84878360567?pwd=cXh3clhBN0lQMfJPYS96M1k4dGFGQT09>

Meeting ID: 848 7836 0567

Passcode: DSA2021

Groups 5, 6, and 7

Zoom Link:

<https://us02web.zoom.us/j/86204803147?pwd=Q216aGtEanVaR1A1K0p5RS9lZG4zQT09>

Meeting ID: 862 0480 3147

Passcode: DSA2021

Saturday, September 11, 2021		
08:30 – 09:00	Log in to Zoom	
09:00 – 09:20	<p>Opening Ceremony</p> <ul style="list-style-type: none"> • Steering Committee Chair <ul style="list-style-type: none"> – Professor W. Eric Wong (University of Texas at Dallas, USA) • Welcome Remarks <ul style="list-style-type: none"> – Professor Wenxing Bao (Vice President, North Minzu University, China) • IEEE Reliability <ul style="list-style-type: none"> – Professor Qiang Miao (Vice President of Membership) (Sichuan University, China) • Program Chairs <ul style="list-style-type: none"> – Professor Mohammad Zulkernine (Queen's University, Canada) – Professor Tao Zhang (Macau University of Science and Technology, China) • General Secretary <ul style="list-style-type: none"> – Professor Qiang Han (The Key Laboratory of Images & Graphics Intelligent Processing of State Ethnic Affairs Commission, North Minzu University) – Dr. Jinbo Wang (Key Laboratory of Space Utilization, Chinese Academy of Sciences, China) 	Zoom
09:20 – 10:10	<ul style="list-style-type: none"> • Keynote Speech I <p style="text-align: center;"><i>Dependable Compilers: Challenges, Solutions, and Tools</i></p> <p>Dr. He Jiang Professor, School of Software Dean, Artificial Intelligence Institute, Dalian</p>	Zoom

	Dalian University of Technology Awardee of the National Science Fund for Excellent Young Scholars Associate Editor of IEEE Transactions on Reliability	
10:10 – 11:00	<ul style="list-style-type: none"> • Keynote Speech II <p><i>Code Recommendation: A Systematic Perspective</i></p> <p>Dr. Zhiqiu Huang Professor, College of Computer Science and Technology Vice President, Nanjing University of Aeronautics and Astronautics</p> <p>Director of Key Laboratory of Safety-Critical Software Nanjing University of Aeronautics and Astronautics Ministry of Industry and Information Technology</p>	Zoom
11:00 – 11:40	<ul style="list-style-type: none"> • Live Q/A for papers in Group 1 	Zoom
11:00	Adjourn	

Sunday, September 12, 2021		
08:30 – 09:00	Log in to Zoom	
09:00 – 09:40	<ul style="list-style-type: none"> • Live Q/A for papers in Group 2 • Live Q/A for papers in Group 5 	Zoom
09:40 – 10:20	<ul style="list-style-type: none"> • Live Q/A for papers in Group 3 • Live Q/A for papers in Group 6 	zoom
10:20 – 11:00	<ul style="list-style-type: none"> • Live Q/A for papers in Group 4 • Live Q/A for papers in Group 7 	Zoom
11:00	Adjourn	

Group 1

- A Comprehensive Evaluation for Burr-Type NHPP-based Software Reliability Models
- An Adaptive Large Neighborhood Search for Two-Dimensional Packing with Conflict Penalty
- An Empirical Study on Spectral Clustering-based Software Defect Detection
- ComFormer: Code Comment Generation via Transformer and Fusion Method-based Hybrid Code Representation
- EKD-BSP: Bug Report Severity Prediction by Extracting Keywords from Description
- Fault Localization-Guided Test Data Generation Approach for Novice Programs
- HMBFL: Higher-Order Mutation-based Fault Localization
- Just-in-Time Defect Prediction Technology based on Interpretability Technology
- MFRL-CA: Microservice Fault Root Cause Location based on Correlation Analysis
- Multi-Objective Evolutionary Algorithm for String SMT Solver Testing
- Multiscale Dense Convolutional Networks for Intelligent Fault Diagnosis of Rolling Bearing
- Optimal Gateway Station Placement for Transmission Delay Minimization in Broadband LEO Satellite Communication System
- Orchid: Building Dynamic Test Oracles with Training Bias for Improving Deep Neural Network Models
- Plum: Exploration and Prioritization of Model Repair Strategies for Fixing Deep Learning Models
- Querent-Centric Domain Name System Modeling and Its Application in Passive Software Discovery

- Use of Deep Learning Model with Attention Mechanism for Software Fault Prediction

Group 2

- A Link Flooding Attack Detection Method based on Non-Cooperative Active Measurement
- A Method of Random Forest Classification based on Fuzzy Comprehensive Evaluation
- A Novel Trust-based Model for Collaborative Filtering Recommendation Systems using Entropy
- A Pruning Neural Network for Automatic Modulation Classification
- A Recommendation Method for Process Modeling based on Clustering and Graph Neural Network
- A Trusted Solution to Hyperledger Fabric Reordering Problem
- An Efficient Batch Verification Scheme for SM2 Signatures
- Analyzing Experimental Results Obtained when Applying Search-based Testing to Verify Automated Driving Functions
- Architecture-Level Schedulability Analysis with IO Constraint using AADL
- Behavior-Driven Development of Software Product Lines
- Development of System Life Cycle Processes Standardization and Future Evolution Analysis
- Distributed Countermeasure Algorithm based on Deep Reinforcement Learning
- Effectively and Efficiently Defending Shadowsocks against Website Fingerprinting Attacks
- Generating Test Scenarios using SysML Activity Diagram

Group 3

- Interval Estimation for Non-Parametric NHPP-based Software Reliability Model via Simulation-based Bootstrap
- Measuring Trust and Automatic Verification in Multi-Agent Systems
- MPSK Signal Modulation Recognition based on Decision Fusion
- On the Performance Evaluation of Congestion Control Algorithms against DDoS Attacks
- Ontology Dependence Closure based on Privacy Association
- Performance Comparison of Three Parameter Estimation Methods on Heavily Censored Data
- Radar Signal Separation Recognition Method based on Semantic Segmentation
- Radar System Testability Design and Demonstration based on Fault Modes and Software Control
- Random Forest Classification based on Fuzzy Comprehensive Evaluation
- SAR and Optical Image Matching based on Phase Congruency and Template Matching
- Small Sample Electromagnetic Signal Recognition based on Time Series Data Augmentation
- Target Tracking Algorithm based on Electromagnetic and Image Trajectory Matching
- Transient Fault Tolerance on Multicore Processor in AMP mode
- UAV Test Data Generation Method based on CycleGAN

Group 4

- A Combination of Fourier Transform and Machine Learning for Fault Detection and Diagnosis of Induction Motors
- A Coverage-Guided Fuzzing Framework based on Genetic Algorithm for Neural Networks
- A Domain Knowledge-Guided Lightweight Approach for Security Bug Reports Prediction
- A Model for Ship-Helicopter Cooperative Anti-Submarine Tracking based on Favorable Situation
- A Model-based Test Cases Generation Method for Spacecraft Software
- A Practical Method based on MSVL for Verification of Social Network
- A Survey of Story-Generation Apps and Online Systems between 2017 and 2020
- A Survey on Autonomous Driving Datasets
- An Airborne Requirements Verification Method based on Requirement Elements using CRF

- An Automatic Approach to Extracting Requirement Dependencies based on Semantic Web
- An Energy-Efficient Strategy based on Q-Learning for Energy Harvesting-based Wireless Sensor Network
- An Indoor Positioning System based on Intelligent Terminal
- An Intellectual Property Data Access Control Method for Crowdsourced Testing System
- An Interactive Computer Assisted Design System: Architecture and Design
- An Optimal Resource Scheduling of Debris Monitoring using Particle Swarm Algorithm with Constriction Factor
- Analytical Investigation of Anomaly Detection Methods based on Time-Domain Features and Autoencoders in Satellite Power Subsystem
- Applying Animation for the Interpretation of Beijing Symbols in the Second Dimensional Space

Group 5

- Applying Microservice Refactoring to Object-Oriented Legacy System
- ARB-BERT: An Automatic Aging-Related Bug Report Classification Method based on BERT
- Automatic Test Path Generation and Prioritization using UML Activity Diagram
- Code Comprehensibility Evaluation for Java Class based on LDA Topic Model
- Constructing A Creative Service Software with Semantic Web
- Construction of GUI Elements Recognition Model for AI Testing based on Deep Learning
- Decision-Making Method of UAV Maneuvering in Close-Range Confrontation based on Deep Reinforcement Learning
- Deep Reinforcement Learning based Adaptive Real-Time Path Planning for UAV
- Design and Implementation of Serial Rabbit Ear Removal Architecture based on FPGA in Passive Detection
- Design of A Reliable Algorithmic with Deep Learning and Transfer Learning for Load Combination Recognition
- Detection and Mitigation of Label-Flipping Attacks in Federated Learning Systems with KPCA and K-Means
- Dictionary Learning Algorithm based on Restricted Boltzmann Machine
- Emotions Behind Divergent Thinking
- Event Graph based Warship Formation Air Defense Scheduling Model and Algorithm
- Fault Diagnosis of the Four-Rotor Unmanned Aerial Vehicle using the Optimized Deep Forest Algorithm based on the Wavelet Packet Translation
- KD-RRT: Restricted Random Testing based on K-Dimensional Tree
- Malware Detection using CNN via Word Embedding

Group 6

- Multi-Agent Trust Evaluation Model based on Reinforcement Learning
- Multi-Granularity Information Expression Application on Patent Text Clustering
- Multi-UAV Reconnaissance Task Assignment based on Wide-Area Search Scenario
- Operational Task Decomposition Method based on Extended HTN Planning
- Privacy Protocol Analysis based on Android Application
- Quality Evaluation of Image Dataset based on Label File
- Satellite On-Orbit Anomaly Detection and Adaptive Model Updating Method
- Scenario-based Reliability Testing Methods for Smart Grid Dispatching and Control System
- Signal Modulation Recognition based on Convolutional Autoencoder and Time-Frequency Analysis
- Software Defect Prediction for Specific Defect Types based on Augmented Code Graph Representation
- Software Selection Test of Enterprise-Level Big Data Analysis Platform
- Survey on Autonomous Vehicle Simulation Platforms
- Test Case Reuse based on ESIM Model
- Test Method of Flight Control Software based on Input Field Model
- The Evaluation of Teaching Effect based on Interpretable Machine Learning
- Timing Attacks in Single-Chip Microcomputer through Workflow Verification
- Verification of CTCS-3 using TMSVL

Group 7

- A Mutation-based Approach to Repair Deep Neural Network Models
- A Novel Building Worker Detection based on Cross Feature Pyramid Network
- A Reliable and Low-Cost Flip-Flop Hardened against Double-Node-Upsets
- An Improved Simhash Algorithm for Academic Paper Checking System
- Capability Analysis Method for Electromagnetic Spectrum
- Exploiting Bitcoin Mining Pool for Stealthy and Flexible Botnet Channels
- Heterogeneous Graph Modeling and Visualization for Cyber Asset Management
- Impact of Mechanism and Influencing Factors of Radio Frequency Fingerprint on Wireless Devices
- Modulation Recognition Algorithm based on Digital Communication Signal Time-Frequency Image
- Proof of Greatest Number Program and Find
- Three Classifications of Big Data-based Software Testing
- Underwater Unmanned Vehicle Search Path Optimization Arithmetic