

# DSA 2021: The 8th International Conference on Dependable Systems and Their Applications

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Due to the ongoing COVID-19 pandemic, DSA was held virtually with all presentations online via Zoom on September 11 and 12. The focus of the conference is innovative methodologies, techniques, tools, and management to produce dependable and trustworthy systems and their applications in a more cost-effective way. More details can be found on the conference website <http://dsa.techconf.org>



Opening Ceremony of DSA 2021 on September 11, 2021.

From top left to right: Professor W. Eric Wong (Steering Committee Chair), Professor Tao Zhang (Program Chair), Professor He Jiang (Keynote Speaker), and Professor Qiang Han (General Secretary). From bottom left to right: Professor Qiang Miao (Vice President of IEEE Reliability Society for Membership), Professor Zhiqiu Huang (Keynote Speaker), and Professor Wenxing Bao (General Chair)

DSA 2021 received 135 submissions with 76 regular papers and 59 short papers. Some papers were desk rejected for various reasons such as incomplete, out of scope, incorrect format, high overlap percentage, or too long. Of the regular submissions, 16 are accepted. The acceptance rate is 21.05%. Of all the short submissions and regular submissions that are not accepted as regular papers, 28 are accepted as short papers. In addition, DSA 2021 also received a good number of submissions to co-located workshops and the Fast Abstract track.

The program committee has 57 members from 12 geographic regions including two co-chairs who helped the conference review and select papers based on their originality, contribution, soundness, presentation, and relatedness. Authors of top quality papers are recommended to submit their extended version to a special DSA 2021 issue with Elsevier *Journal of Systems and Software*.

After reviewing the written comments submitted by PC members and listening to the video presentations of each accepted paper, the Program Committee Chairs selected the following two papers for the DSA 2021 Best Paper Awards:

- *A Comprehensive Evaluation for Burr-type NHPP-based Software Reliability Models*  
Siqiao Li, Tadashi Dohi and Hiroyuki Okamura

- *Plum: Exploration and Prioritization of Model Repair Strategies for Fixing Deep Learning Models*  
Hao Zhang and W.K. Chan

In addition to the paper presentations, the conference also has two keynote speeches:

- *Dependable Compilers: Challenges, Solutions, and Tools* by Dr. He Jiang, Professor of School of Software and Dean of Artificial Intelligence Institute, Dalian University of Technology, China
- *Code Recommendation: A Systematic Perspective* by Dr. Zhiqiu Huang, Vice President and Professor of College of Computer Science and Technology, Nanjing University of Aeronautics and Astronautics, China

The conference is sponsored by the IEEE Reliability Society and organized by North Minzu University. In addition, the conference receives support from the Key Laboratory of Space Utilization/Chinese Academy of Sciences and Beijing Watertek Information Technology Co. Ltd.

We very much appreciate the organizing, program, and local committee members for all their support. Special acknowledgment goes to General Chairs: Professor Wenxing Bao and Professor Fevzi Belli; Program Chairs: Professor Mohammad Zulkernine and Professor Tao Zhang; General Secretaries: Professor Qiang Han and Dr. Jinbo Wang; Publicity Chairs: Professor Nasseh Tabrizi, Professor Fabricio Góes, and Professor Qiang Miao; Local Committee Chair: Professor Xiaofeng Wang; Local Committee Members: Professor Yanbo Jia, Professor Jianping Liu, Professor Zhanyou Ma, and Professor Qiancheng Yu. In addition, we thank all the student volunteers at the University of Texas at Dallas including Dongcheng Li, Shou-Yu Lee, Linghuan Hu, Zizhao Chen, as well as Siwei Zhou from Wuhan University of Technology.

Last but not least, we especially thank authors and conference attendees for their participation during this difficult time.