The 27th IEEE Pacific Rim International Symposium on Dependable Computing (PRDC 2022)

Tsinghua University, Beijing, China + (Virtual options)

November 28-December 1, 2022

http://prdc.dependability.org/PRDC2022/

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Call for papers

IEEE PRDC 2022 is the twenty-seventh event in a series of symposia started in 1989 devoted to dependable and fault-tolerant computing. PRDC is recognized as the main event in the Pacific area that covers many dimensions of dependability and fault tolerance, encompassing fundamental theoretical approaches, practical experimental projects, and commercial components and systems. Nowadays the dependability of computing systems has become increasingly critical. This symposium provides a forum for countries around the Pacific Rim and other areas of the world to exchange ideas for improving the dependability of computing systems.

Topics of interest include (but are not limited to):

- Software and hardware reliability, resilience, safety, security, testing, verification, and validation
- Dependability measurement, modeling, evaluation, and tools
- Self-healing, self-protecting, and fault-tolerant systems
- Architecture and system design for dependability
- Prognostics in Complex Systems
- Reliability analysis of Complex Systems
- Fault-tolerant algorithms and protocols
- Cloud computing resiliency, security and privacy
- Software defined networks architectures and protocols
- Dependability issues in computing systems (e.g. computer networks and communications, high performance computing, real-time systems, storage and databases systems, cyber-physical systems, socio-technical systems, and blockchain and smart contracts).
- Emerging technologies (autonomous systems including autonomous vehicles, human machine teaming, smart devices/Internet of Things)

Submission and Publication Information

Manuscripts may be submitted in IEEE double-column format (https://www.ieee.org/conferences/publishing/templates.html) to one of the following two categories:

Regular Papers (10 pages, excluding references and appendices) should describe original research (not submitted or published elsewhere). Submissions not accepted as regular papers may be considered for acceptance as practical experience reports. In such circumstance authors will be given, in acceptance notifications, option to publish the full-length (10 pages+references) or a reduced (6 pages+references) manuscript.

Practical Experience Reports (6 pages, excluding references and appendices) should describe an experience or a case study, such as the design and deployment of a system or actual failure and recovery field data.

All submissions must be made electronically (in PDF format) through the submission website (https://easychair.org/conferences/?conf=prdc2022). Please note that all submissions will undergo a **double-blind** review. Please ensure that you have removed any references that could lead to the disclosure of the authors' identities. Failing to do so may result in rejection of the paper regardless of the paper contributions. Papers will be reviewed and selected based on their originality, significance, relevance, and clarity of presentation. All accepted papers will be published by the IEEE Computer Society Press (EI Indexed). Submission of a contribution indicates agreement to have one author present the work, if accepted, at the conference. In light of ongoing COVID-19, **virtual presentation and attendance options will be available** for participants.

One outstanding paper will be selected to receive the Best Paper Award, and one outstanding paper first-authored by a student will receive the Best Student Paper Award. A few excellent papers will be recommended to have their extended versions submitted to IEEE Transactions on Dependable and Secure Computing (TDSC) or a Special Issue of the Software Testing, Verification and Reliability (STVR) journal.

Important Dates

Submission for Full Paper: 18 July 2022 (Anywhere on Earth, AoE time)

Notification of Acceptance: 22 August 2022

Keynote Speakers:

Kishor S. Trivedi, Hudson Chair Professor in the Department of Electrical and Computer Engineering at Duke University. He is IEEE Fellow, IEEE Life Fellow, and Golden Core Member of the IEEE Computer Society. He is the author of the well-known textbook entitled, *Probability and Statistics with Reliability, Queuing and Computer Science Applications*. His software tools SHARPE (Symbolic Hierarchical Automated Reliability and Performance Evaluator), SPNP (Stochastic Petri Net Package), and SREPT (Software Reliability Estimation and Prediction Tool) have been used in 500+ academic/industrial laboratories.

Paulo E. Verissimo, a Professor at KAUST and Director of the Resilient Computing and Cybersecurity Center (RC3) at KAUST. Previously, he was a professor and FNR PEARL Chair at the University of Luxembourg FSTM, and Head of the CritiX Research Lab at SnT center at the same University. He is both IEEE Fellow and ACM Fellow. He was the representative of UNILU-SnT in European Cyber Security Organization, Chair of the IFIP WG 10.4 on Dependable Computing and Fault-Tolerance, vice-Chair of the Steering Committee of DSN, and associate editor of IEEE TETC.

Zhendong Su, a Professor in the Department of Computer Science at ETH Zurich. He had been a full professor in Computer Science and a Chancellor's Fellow at UC Davis until June 2019. He is an elected member of the Academia Europaea (the Academy of Europe). He served on the steering committees of ISSTA and ESEC/FSE, served as an Associate Editor for ACM TOSEM, co-chaired SAS 2009, program chaired ISSTA 2012, and program co-chaired SIGSOFT FSE 2016. His research spans programming languages and compilers, software engineering, computer security, deep learning and education technologies.

Tao Xie, a Peking University Chair Professor. He is a Deputy Director of the Key Lab of High Confidence Software Technologies (PKU), Ministry of Education, and the Deputy Secretary General of the Emerging Engineering Development Committee of Peking University. He was a Full Professor at the Department of Computer Science, University of Illinois at Urbana-Champaign (UIUC), USA. He is a Fellow of ACM, IEEE, AAAS, and CCF. He also serves as a Deputy Director of CCF TCSE. His main research interests include software engineering, system software, software security, and trustworthy AI.

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