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The 18th IEEE Int'l Conference on Dependable, Autonomic and Secure Computing (DASC 2020)

June 22-26, 2020, Calgary, Canada

As computer and communication systems as well as other systems such as Cyber-Physical Systems (CPS), Internet of Things (IoT), Autonomous Robotic Systems become increasingly large and complex, their Dependability and Security play critical role at supporting next-generation science, engineering, and commercial applications. It remains a challenge to design, analyze, evaluate, and improve the dependability and security for a trusted computing environment. Trusted computing targets computing systems as well as services that are dependable, secure, protectable, predictable, traceable, controllable, autonomous, and sustainable.

At the same time, the increasing scale and complexity of systems call for the autonomic computing paradigm, which meets the requirements of self-management, and autonomous systems. Trusted and autonomic computing/autonomous systems need synergistic research efforts covering many disciplines, ranging from natural sciences to social sciences. It requires scientific and technological advances in a wide variety of fields, as well as new software, architectures, and communication technology that support the integration of the constituent technologies.

IEEE DASC 2020 will be held in June 22-26, 2020 in Calgary, Canada, co-located with IEEE **CyberSciTech 2020**, IEEE **PICom 2020**, and IEEE **CBDCom 2020**. It aims to bring together computer scientists, industrial engineers, and researchers to discuss and exchange theoretical and implementation results, novel designs, work-in-progress, experience, case studies, and trend-setting ideas in the areas of dependability, security, trust and/or autonomic computing, and autonomous systems. Topics of interests include the following tracks, but are not limited to:

Track 1. Dependable and Fault-tolerant Computing

- Fundamentals, including Dependability Evaluation, Dependable Sensors, QoS, SOA, etc.
- Dependable & Fault-tolerant Computing in Big Data, CPS, IoT, SDN, and Real-time System
- Dependability & Fault-tolerance in Cloud/Fog/Edge Computing, and Pervasive Computing
- Human Aspects, and Education
- Software Engineering in Dependable and Fault-tolerant Computing
- Artificial Intelligence Techniques in Dependable and Fault-tolerant Computing
- Hardware and Software Reliability, Verification and Testing
- Safety-critical Systems, Mission-critical Systems

Track 2. Network and System Security and Privacy

- Fundamentals, including Intrusion-Detection, Digital Forensics, (Counter-)Surveillance, etc.
- Security and Privacy in Big Data, CPS, IoT, SDN, and Real-time Systems
- Security and Privacy in Cloud/Fog/Edge Computing, Mobile and Pervasive Computing
- Artificial Intelligence Techniques in Network and System Security and Privacy
- Human Aspects, and Education
- Cyber Attack, Crime and Cyber War
- Biometric Issues in Security and Privacy

Track 3. Autonomic Computing and Autonomous Systems

- Fundamentals, including Agents, Real-Time Perception, Decision, Control, Self-healing, etc.
- Autonomic and Autonomous Issues in Big Data, CPS, IoT, SDN, and Real-time Systems
- Autonomic and Autonomous Issues in Cloud/Fog/Edge Computing, Pervasive Computing
- Self-Organization and Organic Computing
- Cognitive Computing and Self-Aware Computing
- Energy Management in Autonomic Computing and Autonomous Systems
- Artificial Intelligence Techniques in Autonomic Computing and Autonomous Systems
- Human Aspects, and Education

Track 4. Industrial Applications and Emerging Techniques

- Software/Apps/Tools Development for Dependable and Secure Applications
- Autonomous Robotics, Vehicles, Machines, and Various Systems
- IoT and Sensor Network, Big Data, Smart Grid, Aerospace, Transportation Applications
- Safety Care, Medical Care and Services, IoT-based Healthcare
- Social Aspects of Applying Systems
- Other Applications and Emerging Techniques

IMPORTANT DATES

Workshop/SS Proposal Due:	**Nov. 30, 2019**
Regular Paper Submission Due:	**Feb. 15, 2020**
Demo/Poster/WiP Paper Due:	**Mar 10, 2020**
Authors Notification:	**April 01, 2020**
Camera-ready Submission:	**May 10, 2020**

SUBMISSION & PUBLICATION

Authors are invited to submit their original research work using IEEE CS Proceedings format via DASC 2020 website: http://cyber-science.org/2020/dasc/.

Regular paper (8 pages), Work-in Progress (WiP) paper (4~6 pages), Demo/Poster paper (2~4 pages), Workshop & Special Session paper (6 pages) are solicited. Detailed instructions are on the website.

- Accepted papers will be included into the proceedings published by IEEE CPS (EI indexed).
- At least one author of any accepted paper is required to register and present the paper at the conference.
- Extended versions of selected papers will be considered for fast-track publication in some prestige journals (SCI/EI indexed).

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