

# The 6th IEEE International Conference on Dependability in Sensor, Cloud, and Big Data Systems and Applications (DependSys 2020)

14-16 December 2020, Fiji

## Important Dates

<b>Special Session:</b>	<b>Jun. 30, 2020</b>
<b>Paper Submission Deadline:</b>	<b>Sept. 25, 2020</b>
<b>Authors Notification:</b>	<b>Oct. 25, 2020</b>
<b>Final Manuscript Due:</b>	<b>Nov. 15, 2020</b>
<b>Conference Date:</b>	<b>Dec. 14-16, 2020</b>

## DependSys

IEEE DependSys 2020 conference is the 6th event in the series of conferences which offers a timely venue for bringing together new ideas, techniques, and solutions for dependability and its issues in sensor, cloud, and big data systems and applications. As we are deep into the Information Age, huge amounts of data are generated every day from sensors, individual archives, social networks, Internet of Things, enterprises and Internet in various scales and format which will pose a major challenge to the dependability of our designed systems. As these systems often tend to become inert, fragile, and vulnerable after a period of running. Effectively improving the dependability of sensor, cloud, big data systems and applications has become increasingly critical.

This conference provides a forum for individuals, academics, practitioners, and organizations who are developing or procuring sophisticated computer systems on whose dependability of services they need to place great confidence. Future systems need to close the dependability gap in face of challenges in different circumstances. The emphasis will be on differing properties of such services, e.g., continuity, effective performance, real-time responsiveness, ability to overcome data fault, corruption, anomaly, ability to avoid catastrophic failures, prevention of deliberate privacy intrusions, reliability, availability, sustainability, adaptability, heterogeneity, security, safety, and so on.

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## Tracks and Topics

### Track 1: Dependability and Security Fundamentals and Technologies

- ✧ Concepts, theory, principles, standardization and modelling, and methodologies
- ✧ Dependability of sensor, wireless, and Ad-hoc networks, software defined networks
- ✧ Dependability issues in cloud/fog/edge
- ✧ Security and privacy
- ✧ Security/privacy in cloud/fog/edge
- ✧ Blockchain security
- ✧ Artificial intelligence
- ✧ Big data foundation and management
- ✧ Dependable IoT supporting technologies

### Track 2: Dependable and Secure Systems

- ✧ Dependable sensor systems
- ✧ Dependability and availability issues in distributed systems
- ✧ Cyber-physical systems (e.g. automotive, aerospace, healthcare, smart grid systems)
- ✧ Database and transaction processing systems
- ✧ Safety and security in distributed computing systems
- ✧ Self-healing, self-protecting, and fault-tolerant systems
- ✧ Dependability in automotive systems
- ✧ Dependable integration
- ✧ Dependability in big data systems
- ✧ Software system security

### Track 3: Dependable and Secure Applications

- ✧ Sensor and robot applications
- ✧ Big data applications
- ✧ Cloud/fog/edge applications
- ✧ Datacenter monitoring
- ✧ Safety care, medical care and services
- ✧ Aerospace, transportation applications
- ✧ Energy, smart city, smart grid, and utility applications
- ✧ IoT, CPS and industrial application
- ✧ Activity monitoring
- ✧ Mobile sensing applications, detection and tracking

### Track 4: Dependability and Security Measures and Assessments

- ✧ Dependability metrics and measures for safety, trust, faith, amenity, easiness, comfort, and worry
- ✧ Levels and relations, assessment criteria and authority
- ✧ Dependability measurement, modeling, evaluation, and tools
- ✧ Dependability evaluation
- ✧ Software and hardware reliability, verification and validation
- ✧ Evaluations and tools of anomaly detection and protection in sensor, cloud, big data systems

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## Special Issues

1. Information Fusion SI on Fusion from Big Data to Smart Data
2. Information Fusion SI on Data Fusion for Trust Evaluation
3. IEEE Transactions on Industrial Informatics SI on Digital Twinning: Integration AI-ML and Big Data Analytics for Virtual Representation
4. Future Generation Computer Systems SI on Artificial Intelligence for Cyber Defence and Smart Policing
5. Digital Communications and Networks SI on Blockchain-enabled Technologies for Cyber-Physical Systems and Big Data Applications
6. IEEE Transactions on Network Science and Engineering SI on Computing and Networking for Cyber-Physical-Social Systems
7. IEEE/CAA Journal of Automatic Sinica SI on Blockchain for IoTs and Cyber-Physical Systems: Emerging Trends, Issues and Challenges
8. Neurocomputing SI on Edge Intelligence: Neurocomputing Meets Edge Computing
9. IEEE Access SI on Reliability in Sensor-Cloud Systems and Applications (SCSA)
10. Journal of Cloud Computing SI on Security and Privacy Issues for AI in Edge-Cloud Computing
11. Journal of Systems Architecture SI on Ubiquitous Edge Computing for Next Generation IoT and 6G: Architecture, Modelling and Systems
12. Journal of Systems Architecture SI on High-Performance-Computing-Communications for Cyber-Physical-Social Systems
13. MDPI Electronics SI on Blockchain-based Technology for Mobile Applications
14. Software: Practice and Experience SI on Software and Hardware Co-Design for Sustainable Cyber-Physical Systems

### PAPER SUBMISSION

All papers need to be submitted electronically through the conference submission website (<https://edas.info/N27703>) with PDF format. Each paper is limited to 8 pages (or 10 pages with over length charge).