

CALL FOR PARTICIPATION

The 4th CPSSI International Symposium on Real-Time and Embedded Systems and Technologies (RTEST) will be held on **May 30-31, 2022** at Iran University of Science and Technology (IUST), Tehran, Iran. **RTEST2022 will happen as a virtual conference and keynote speeches and technical sessions are open to public audiences.**

THEME AND TOPICS

- **Cyber-Physical Systems (CPS)**
- **Internet-of-Things (IoT)**
- **Embedded Software and Hardware**

KEYNOTE SPEAKERS:

- **Professor Maryline Chetto:** Real-time scheduling issues in sensors with energy neutral constraints
- **Professor Marjan Sirjani:** Title: Analysis of Timing Properties in Networked Systems
- **Professor Mohammad Reza Mousavi:** Formal Analysis of Dynamic Updates in Software Defined Networks

ACCEPTED PAPERS:

1. Reinder J. Bril. On system models and schedulability analysis for basic single-rate cyclic executives
2. Farimah Ramezan Poursafaei, Sepideh Safari, Mohsen Ansari, Amir Yeganeh-Khaksar, Mohammad Salehi and Alireza Ejlali. Energy- and Reliability-Aware Task Replication in Safety-Critical Embedded Systems
3. Farzam Tajdari, Hasan Ramezani, Shadi Paydarfar, Ali Lashgari and Shakib Maghrebi. Optimal flow metering and lane-changing control with ramp-metering saturation
4. Mohammad Amin Moloudi, Amin Foshati, Hossein Kalantari and Alireza Ejlali. A Combination of FMEA and Digital Twinning for Rapid, Accurate, and Online Diagnosis in Vehicles Using COTS Embedded Computing Devices
5. Mohammad Jalili and Fathiyeh Faghieh. Static/Dynamic Analysis of Android Applications to Improve Energy-Efficiency
6. Hussien Al-Haj Ahmad and Yasser Sedaghat. GCFI: A High Accurate Compiler-based Fault Injection for Transient Hardware Faults
7. Sahar Rezagholi Lalani, Bardia Safaei, Amir Mahdi Hosseini Monazzah and Alireza Ejlali. PEARL: Power and Delay-Aware Learning-based Routing Policy for IoT Applications
8. Amin Norollah, Zahra Kazemi, Danesh Derafshi, Hakem Beitollahi and Mahdi Fazeli. Protecting Security-Critical Real-Time Systems against Fault Attacks in Many-Core Platforms

9. Melika Dastranj, Mehran Alidoost Nia and Mehdi Kargahi. Deploying Reinforcement Learning for Efficient Runtime Decision-Making in Autonomous Systems
10. Rojin Naseri, Ali Naghash Asadi and Mohammad Abdollahi Azgomi. A Model for Power-Performance Optimization in Fog-Cloud Environment by Task Off-Loading of IoT Applications
11. Hassan Motallebi. Conflict Resolution and Fluidization in Cyber-Physical Systems
12. Ch. Naga Sai Kalyan, Manikyala Dilip Kumar, B. Srikanth Goud, Hossein Shahinzadeh, Ch. Rami Reddy and Malligunta Kiran Kumar. Frequency Regulation of Multi Area Hybrid Source Power System with Energy Storage Devices
13. Hamed Sepehrzadeh. Security Evaluation of Cyber-Physical Systems with Redundant Components
14. Ferdous Sharifi, Shaahin Hessabi and Ali Rasaii. The Effect of Fog Offloading on the Energy Consumption of Computational Nodes
15. Amirhosein Imani, Mohsen Eslami and Javad Haghghat. Coverage and Energy Efficiency Analysis of Wireless Sensor Networks for Internet of Things
16. Hussien Al-Haj Ahmad and Yasser Sedaghat. Software-based Control-Flow Error Detection with Hardware Performance Counters in ARM Processors
17. Cutifah Safitri. Threats, Challenges and Requirements for Security in Vehicular Ad Hoc Network

WORKSHOPS:

- **Dr. Amir Mahdi Hosseini Monazzah:** Embedded Systems: The Future Computation Systems
- **Dr. Hamed Sepehrzadeh:** Cyber-Physical Security versus Cyber Security

Please find attached the technical program of the symposium.

For more information, please visit <https://rtest2022.iust.ac.ir/>.

ORGANIZING COMMITTEE:

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