



17TH INTERNATIONAL CONFERENCE ON OPEN SOURCE SYSTEMS & TECHNOLOGIES

(ICOSST-2023)

20 - 21 DECEMBER, 2023

HYBRID (VIRTUAL + IN-PERSON) CONFERENCE

IMPORTANT DATES

CONFERENCE DATES

20th To 21st December 2023
(Wednesday, Thursday)

SUBMISSION DEADLINE

Wednesday, 20th September 2023

ACCEPTANCE/ NON ACCEPTANCE NOTIFICATION:

Wednesday, 1st November 2023

CAMERA READY SUBMISSION

Wednesday, 15th November 2023



CALL FOR PAPERS

ICOSST 2023 is a renowned international conference focusing on Open Source Systems and Technologies. It serves as a cross-disciplinary platform for distributed enterprise computing and e-Government. This conference enables both public and private organizations to maintain control over development and deployment costs, transforming the way software applications are designed, implemented, and utilized. Open-source software (OSS) not only offers innovative architectural approaches but also provides robust cross-platforms and frameworks for large-scale distributed systems.

This year, ICOSST 2023 will be conducted in a hybrid mode, allowing presenters to choose between virtual or in-person presentations. We are proud to announce that the event is organized by the Al-Khwarizmi Institute of Computer Science, UET Lahore, in Technical Co-sponsorship and in joint Collaboration with IEEE Computer & Communication Societies, Lahore Section, (R10), Pakistan. This two-day event aims to gather researchers and practitioners from around the globe, offering them an opportunity to exchange ideas and share their experiences concerning the state-of-the-art and future advancements in Open Source systems and technologies.

We welcome contributions in various areas related to Open Source systems, including but not limited to:

- ✧ Generative AI and LLMs
- ✧ Software and Systems Engineering
- ✧ Smart Cities & E-Governance
- ✧ Open Metaverse and Virtual Reality
- ✧ Data Science and Artificial Intelligence
- ✧ Cloud Computing and Big data
- ✧ Network, Communications, and Cyber Security
- ✧ Internet of Things (IoT)
- ✧ Autonomous Systems and Robotics



CONFERENCE
SECRETARIAT

Al-Khwarizmi Institute of Computer
Science (KICS), University of Engineering
& Technology, G.T. Road,
Lahore, Pakistan

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Sponsors:



<https://icosst.kics.edu.pk/2023/>

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WE WELCOME CONTRIBUTIONS IN VARIOUS AREAS RELATED TO OPEN SOURCE SYSTEMS, INCLUDING BUT NOT LIMITED TO:

* Generative AI and LLMs

- Architectures, Designing, Training, Evaluation, Benchmarking of Large Language Models
- Optimization and Scalability of LLMs
- Explainability and Interpretability of Open Large Language Models
- Applications of LLMs i.e., Transfer learning, Translations, etc.
- Applications of Generative AI like Chatbots
- Legal and Ethical Considerations of Generative AI/LLMs
- Testing Biases of Open LLMs and Generative AI
- Generative AI and LLM driven Decision Support Systems
- Synthesis and Detection of Deep Fakes

* Software and Systems Engineering

- Open Softwares for Emerging Systems
- Open Software for Education, Healthcare, Finance, etc.
- Blockchain based Software/System Applications
- Business Intelligence Applications, Tools, Data warehousing, and Platforms.
- Human-Computer interaction
- Open Software Development, Debugging, Testing, Verification, and Benchmarking
- Open Source Data, Tools, Software, Applications, and Analytics

* Smart Cities & E-Governance

- Smart Decision Support Systems for Different Domains like Healthcare, Education, Transportation
- Disaster Surveillance and Management for Smart Cities
- Framework, Models, Tools, Platforms, Strategies, and Data for E-Governance:
- Capacity Building and Skills Development for E-Governance: Strategies, Tools, Data, Software
- OpenData, Transparency, and Collaboration in E-Governance
- Smart City Infrastructure: Protocols (LoraWAN) and Technologies (FiWARE)
- IoT and Sensor Networks for Smart Cities
- Energy Management, Smart Grids, and Sustainability in Smart Cities

* Open Metaverse and Virtual Reality

- Virtual Humans and Digital Twins
- Augmented Reality (AR)/Virtual Reality (VR)/Mixed Reality (MR) / Extended Reality (XR) Tools, Architectures, Applications, Modeling, Simulation, and Visualization
- AI for AR/VR/MR/XR
- User Behavior, User Interaction/Connectivity with Virtual Environment, 3D Object Rendering
- Gamification, Game Design, Development, Game-Based Learning/Training
- Application of virtual Reality and Virtual Humans in Various Domains like Military, Healthcare, Education, Cyber Frauds, Entertainment, etc.

* Data Science and Artificial Intelligence

- Data Science Algorithms, Application, Models, Analytics
- Use Cases for Socio-Economic Development
- Machine/Deep/Reinforcement Learning
- Distributed, Centralized, Federated Learning
- Natural Language Processing (NLP)/Understanding (NLU), Reasoning, Inference.
- Speech Recognition and Processing
- Computer Vision, Pattern Recognition and Applications
- Ethics in Data Science/AI
- Explainable AI (XAI)

* Cloud Computing and Big data

- Big data Models, Theories, Algorithms, Approaches, Solutions, Applications, Analytics
- Cloud Computing Maintenance, Security, Management, Optimization, Automation, and Operations
- Big data Processing for Fog/Edge Computing
- Big Data Storage, Management, Retrieval etc.
- Cloud Computing Architecture, Optimization, Protocols, Performance Modeling, Services, and Use Cases

* Network, Communications, and Cyber Security

- Wireless Communication Systems and Technologies
- Drone Networking
- Advances, Application, Architecture, Evaluation of P2P Communication
- Vehicular Networking (IoV/V2V/V2I/V2X)
- Traffic Measurement, Analysis, Modeling, Visualization, and Engineering
- Data privacy, Cryptography, and Anonymity on the Network
- Network Forensics and Security
- Malware, Intrusion, Ransomware, and Virus Detection and Prevention
- Green Communications Systems and Networks
- Ad-hoc and Sensor Networks
- 5G Networks: Resource Allocation, Service Monitoring, Security, Debugging, and Management

* Internet of Things (IoT)

- Fog/Edge Computing : Applications, Models, Mobility Management, Security, Privacy, Storage, Trust
- Big Data/AI/Blockchain/ Cloud computing (AWS/Azure/GCP) for IOT Devices
- Next Generation Infrastructure and Communication Protocols for IoT
- Case Studies and Real Worlds Applications of IoT in Healthcare, Energy, Agriculture

* Autonomous Systems and Robotics

- AI for Robotics and Automation: Real World Applications
- Intelligent and Autonomous Systems
- Ethics and social implications of autonomous systems
- Autonomous mobile robots and drones

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