IEEE SMC-IT / SCC 2024
10th International Conference on Space Mission Challenges for Information Technology
15th International Conference on Space Computing

Computer History Museum
Mountain View, CA, USA
July 15-19, 2024

CALL FOR PARTICIPATION
REGISTRATION IS NOW OPEN
EARLY BIRD REDUCED RATE EXTENDED THROUGH **FRIDAY JUNE 7th**!
(Regular registration begins on June 8th and continues throughout the conference.)

Sponsored by: IEEE Computer Society, IEEE's Technical Committee on Software Engineering (TCSE) and IEEE's Technical Community on Computer Architecture (TCCA)

General Information: http://smcit-scc.space
Email Inquiries: smcit-scc_chairs@list.jpl.nasa.gov
Registration: http://smcit-scc.space/registration

The International Conference on Space Mission Challenges for Information Technology (SMC-IT) and the Space Computing Conference (SCC) gather system designers, engineers, computer architects, scientists, practitioners, and space explorers with the objective of advancing information technology, and the computational capability and reliability of space missions. The forums will provide an excellent opportunity for fostering technical interchange on all hardware and software aspects of space missions. The joint conferences will focus on current systems practice and challenges as well as emerging hardware and software technologies with applicability for future space missions.

Systems in all aspects of the space mission will be explored, including flight systems, ground systems, science and flight data processing, engineering and development tools, operations, telecommunications, high-performance space computing, radiation-tolerant computing devices, reliable electronics, robotics, intelligent systems and machine learning, distributed autonomy, networking and communications, and space-qualifiable packaging technologies. The entire information systems lifecycle of mission development will also be covered, such as conceptual design, engineering tools development, integration and test, operations, science analysis, and quality control.

Confirmed Keynote Speakers include:

- Eugene Tu (Center Director, NASA Ames Research Center)
- Jason Aspiotis (Director, In-Space Infrastructure and Logistics, Axiom Space)

- Elizabeth Turtle (Planetary Scientist, Johns Hopkins Applied Physics Laboratory)
- Jesse Mee (Senior Scientist for Radiation Hardening Technologies, Air Force Research Laboratory)
- Prasun Desai (Deputy Associate Administrator, Space Technology Mission Directorate, NASA HQ)
- Damon Bradley (Founder and President, DeepSpace Technologies)

WORKSHOPS:

In addition to the keynotes and main SMC-IT and SCC technical tracks, the conference will feature the following workshops:

- 1st Distributed Autonomy for Space Systems (DASS) Workshop
- 3rd Open Source for Space Workshop
- 5th Augmented, Virtual, and Mixed Realities Workshop: xR Technologies in Digital Engineering Environments
- Balancing Performance, Fault-tolerance, and Security for Future Space Systems: What are the trends? What are our challenges?
- HPSC – Redefine What's Possible for the Future of Space Computing
- New Ideas and Emerging Results
- Space Cybersecurity Technical Standards
- Space Robotics Workshop: Emerging Challenges and Needs for Autonomy in the New Era of Space Exploration
- Space Terrestrial Internetworking (STINT) Workshop
- Trustworthiness of Foundation Models and What They Generate
- Verification and Validation of Multi-Core System Architectures
- What is Resilience? A Workshop on Resilience, Adaptation, and Robustness to Design Resilient Space System Architectures

Some of the workshops are still accepting submissions. If you have content that you would like to present at the workshop, please contact the workshop organizers directly.

EXHIBITS:
Interested in exhibiting or providing sponsorship through a corporation grant? If so, please contact us at smcit-scc_chairs@list.jpl.nasa.gov

CALL FOR STUDENT VOLUNTEERS:
If you are a full-time student and have an interest in volunteering to help with conference operations, please drop us an email at smcit-scc_chairs@list.jpl.nasa.gov.

TOUR OF NASA AMES:

Please indicate interest in joining a tour of NASA Ames Research Center when you register. *Limited spaces are available. Other limitations apply.* Please be aware that those expressing interest will receive a separate email to register specifically for the tour.

We look forward to seeing you in person in July 2024!

ORGANIZING COMMITEE:

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- General Co-chair (SMC-IT/SCC): Rory Lipkis (NASA ARC)
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    - Jim Butler (NASA JPL)
    - Michael Campbell (The Aerospace Corporation, Ret.)
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