HOST 2025 Call for Hardware Demonstrations

The IEEE International Symposium on Hardware Oriented Security and Trust (HOST) will include a special session that allows students from academic institutions to present tech-transfer based research through hands-on hardware demonstrations. Booths with tables and easels will be provided to allow students to set up laptops and hardware configurations, such as microcontrollers, FPGAs, RFID readers, DUTs, power supplies, etc. In addition to the demonstration, participants are required to assemble and display a poster that summarizes and illustrates concepts and provides extensive results beyond what is possible to reproduce onsite.

Demonstration Areas

Hardware demonstrations must be related to hardware-level security and trust, which includes a broad range of topics, such as those listed in the HOST call-for-papers: http://www.hostsymposium.org/call-for-paper.php.

Guidelines

- Proposal Deadline: The submission deadline for hardware demonstration proposals is February 14,
 2025. Acceptance of proposals into the HOST program will be announced on February 28, 2025.
 The HOST website should be consulted for any changes in the proposal deadline.
- Proposals are limited to two pages in length and must be submitted through EasyChair at https://easychair.org/conferences/?conf=host2025. Please make a new submission and choose the HOST 2025 "Hardware Demo" track.
 - Proposals should include a 1/2 to 1 page description of the research, with references provided to previously published papers (if available).
 - The remainder of the proposal should describe the nature of the demonstration and present content such as, but not limited to: graphics showing the experimental setup and required equipment, specific features of the research that will be targeted in the hardware demo, a description of the observables, and what the audience should expect to see.
- Review & Selection: Proposals will be evaluated based on the novelty of the proposed hardware demonstration and the clarity and completeness of the written narrative, which should include figures that depict the hardware prototype and other design representations appropriate to the core contribution. Selected proposals will be invited to present their live demonstration and a poster at the HOST 2025 Hardware Demonstration Sessions.
- Judging & Awards: A set of judges will evaluate the hardware demonstrations in-person at HOST 2025. The judging criteria is provided below, and details regarding the judging process (date, time, venue, format) will be sent out to hardware demonstration participants before the conference. The top three hardware demonstrations will be selected for awards, which will be announced at the HOST 2025 Awards Banquet.
- **Questions:** Questions may be directed at the Hardware Demonstration Chair, **Hadi Kamali** (kamali at ucf dot edu).

Evaluation Criteria for the Student Hardware Demonstration Contest

A committee of judges will evaluate each hardware demonstration at HOST. The top three student demonstrations will be given **HOST 2025 BEST Hardware Demo Awards**. The criteria used by the judges to evaluate the demonstrations will be based on the following:

- 1. How effective was the observable? (e.g., was there a graphical user interface that reflected aspects of the actual hardware working? Were there indicators that clearly reflected operations being performed in the hardware?)
- 2. Was the hardware demo well organized and the concepts presented clearly? (e.g., was there background information being properly provided/introduced? Were the uniqueness/contributions of the

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- demo well-articulated?)
- 3. How well did the students answer questions? (e.g., did the student appear to be knowledgeable about the hardware security area that the demo was tied to? Were the students aware of the limits and were able to reasonably justify?)
- 4. Complexity/difficulty of the demo: How challenging is the demo being set up and performed?
- 5. Was there a quality conference-style poster displayed (e.g., did it summarize and illustrate the problem, goals, and concepts, and provide extensive results beyond what is possible to reproduce onsite?)
- 6. Overall score: What was the overall impression?

Important Dates

February 14, 2025: Deadline for hardware demonstration proposals

February 25, 2025: Notification of acceptance

Submission Site: https://easychair.org/conferences/?conf=host2025

Please make a new submission and choose the HOST 2025 "Hardware Demo" track.

Scholarship Opportunity - Stay Tuned

As always, HOST strives to support student attendees showcasing their work. For HOST 2025, we are exploring the possibility of offering the opportunity for students presenting HW demonstrations to apply for a travel scholarship to reimburse some travel expenses. Stay tuned for more information in future announcements regarding the travel grant application and selection process.

Contact Information

HOST Hardware Demo Chair:

Hadi Kamali (E-mail: kamali at ucf dot edu)