HOST 2023 Call for Hardware Demonstrations

IEEE International Symposium on Hardware Oriented Security and Trust (HOST) will include a special session that allows students and faculty 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 on-site.

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.

Guidelines

- ***Proposal Deadline:*** The submission deadline for hardware demonstration proposals is **March 24, 2023**. Acceptance of proposals into the HOST program will be announced on **March 31, 2023**. 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=host2023 (please make a new submission and choose the "HOST Hardware Demo" track). Hardware demonstration chairs **Wenjie Che** (wche at nmsu dot edu) and **Calvin Chan** (calvin dot chan at colorado dot edu) should be contacted for questions.
    - 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 research and demonstration, as well as the clarity and completeness of the description, such as figures that depict the hardware prototype and other design representations appropriate to the core contribution. Selected proposals will be invited to give live hardware demonstrations and display a poster at the Hardware Demonstration Sessions at HOST 2023.
- ***Judging & Awards:*** A set of judges will evaluate the hardware demonstrations in-person at the HOST 2023 event. The judging criteria is provided below, and details regarding the judging

process (date, time, venue, format) will be sent out before the conference to hardware demo participants. *The top three hardware demonstrations will be selected for awards and announced at HOST 2023.*

Scholarship Opportunity

Students associated with hardware demonstrations that are selected for presentation at HOST 2023 will have the opportunity to apply for a travel scholarship to reimburse hotel costs.

Student Hardware Demonstration Contest

A committee of judges will evaluate each hardware demonstration at HOST. The top three student demonstrations will be given an award. 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 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 on-site?)
6. Overall score: What was the overall impression?

Important Dates

March 24, 2023: Deadline for hardware demonstration proposals

March 31, 2023: Notification of acceptance

Submission Site: https://easychair.org/conferences/?conf=host2023 (Please make a new submission and choose the "HOST Hardware Demo" track)

Contact Information

HOST Hardware Demo Co-Chairs: Wenjie Che and **Calvin Chan**

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