DIRECTOR

SAURABH BAGCHI
Professor of Electrical and Computer Engineering
Director, Army A2I2 Institute
sbagchi@purdue.edu

THRUST LEADS

MUHAMMAD SHAHBAZ
Lead, Cyber Resilience
Assistant Professor of Computer Science
mshahbaz@purdue.edu

VISHAL SHRIVASTAV
Lead, Cyber Resilience
Assistant Professor of Electrical and Computer Engineering
vshriva@purdue.edu

SOMALI CHATERJI
Lead, Cyber-Physical Resilience
Assistant Professor of Agricultural and Biological Engineering and Electrical and Computer Engineering
schaterji@purdue.edu

SPECIAL THANKS

2023 GRAND CHALLENGES WORKSHOP ORGANIZING COMMITTEE

Saurabh Bagchi • Somali Chaterji • Jing Gao
Zahra Ghodsi • Aravind Machiry
Muhammad Shahbaz • Vishal Shrivastav
Santiago Torres-Arias

SPONSORS

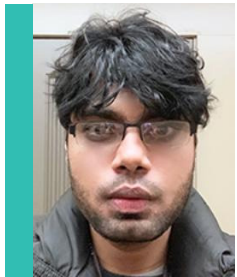National Science Foundation
Office of Research • College of Engineering
College of Agriculture • Elmore Family School
of Electrical and Computer Engineering •
Computer Science

SPEAKERS

RAMESH GOVINDAN
Northrop-Grumman Chair in Engineering
Professor of Computer Science and Electrical Engineering
University of Southern California

CHRISTIAN MACIOCCO
Principal Engineer and Director of Telecom Systems Research
Intel Labs

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CRISP

2023 GRAND CHALLENGES WORKSHOP

The Center for Resilient Infrastructures, Systems, and Processes (CRISP) is a multi-disciplinary center focusing on three aspects of resilience: resilience in cyber, cyber-physical, and socio-technical systems. It was started in October 2017 and is currently supported by grants from federal agencies (NSF, Department of Energy, NIH, DoD), private corporations, and seed funding from Purdue.

THRUST LEADS

ARAVIND MACHIRY
Lead, Cyber-Physical Resilience
Assistant Professor of Electrical
and Computer Engineering
amachiry@purdue.edu

JING GAO
Lead, Socio-Technical Resilience
Associate Professor of Electrical
& Computer Engineering
jinggao@purdue.edu

SANTIAGO TORRES-ARIAS
Lead, Socio-Technical Resilience
Assistant Professor of Electrical
and Computer Engineering
santiagotorres@purdue.edu

ZAHRA GHODSI
Lead, Cross Cutting
Assistant Professor of Electrical
and Computer Engineering
zghodsi@purdue.edu

There are 23 affiliate faculty members from various
schools within the College of Engineering and
Computer Science.

WORKSHOP PROGRAM

MONDAY, NOVEMBER 13
7:00 - 9:00 PM — Welcome reception with poster session
Wright Forestry Center

TUESDAY, NOVEMBER 14
9:00 - 9:10 AM — Inauguration of the workshop: Saurabh Bagchi
9:10 - 9:15 AM — ECE Welcome: Milind Kulkarni
9:15 - 10:15 AM — Keynote A: Ramesh Govindan (USC)
10:15 - 10:35 AM — Invited Talk 1: Alex Gantman (Qualcomm)
10:35 - 11:00 AM — Break
11:00 AM - 12:00 PM — Panel 1: AI: Where the Virtual and the Physical Converge
Somali Chaterji (M); Eugenio Culurciello, Ramesh Govindan, Yin Li, Greg Shaver, Christian Maciocco; Andrew Perrault (R)
12:00 - 12:20 PM — Invited Talk 2: Tim Weninger (Notre Dame)
12:20 - 12:30 PM — CoE Welcome: Arvind Raman
12:30 - 1:45 PM — Lunch
1:45 - 2:45 PM — Breakout Sessions (in parallel)
Topic 1: Post-Moore and emerging computing platforms: Vishal Shrivastav (L), Hank Hoffmann (R) [Large Conference Room]
Topic 2: Next big research challenges in resilient cyber systems: Jing Gao (L), Lu Su (R) [Howard Taylor Conference Room]
2:45 - 3:05 PM — Invited Talk 3: Yin Li (Wisconsin)
3:05 - 3:30 PM — Break
3:30 - 4:30 PM — Panel 2: Role of Resilience in Cyber-Physical Systems
Saurabh Bagchi (M); Saman Zonouz, Nalini Venkatasubramanian, Dongyan Xu, Kang Shin; Mahsa Ghasemi (R)
4:30 - 4:50 PM — Invited Talk 4: Anirudh Sivaraman (New York University)
4:50 - 5:10 PM — Invited Talk 5: Kang Shin (Michigan)
5:10 - 5:20 PM — Federal Program Announcement: Priya Narayanan (Army Research Lab)
5:20 - 5:30 PM — Federal Program Announcement: David Corman (NSF)

WEDNESDAY, NOVEMBER 15
9:00 - 9:10 AM — VPR Welcome: Karen Plaut
9:10 - 9:20 AM — Federal Program Announcement: Enrique Matheu (Army)
9:20 - 10:20 AM — Keynote B: Christian Maciocco (Intel)
10:20 - 10:40 AM — Invited Talk 6: Fish Wang (Arizona State)
10:40 - 11:10 AM — Break
11:10 AM - 12:00 PM — Breakout Sessions (in parallel)
Topic 3: Applications that demand new security and reliability techniques: Aravind Machiry (L); Reyhaneh Jabbarvand (R) [Large Conference Room]
Topic 4: Are there CPS challenges for autonomous systems and smart communities: Somali Chaterji (L); Enrico Bonello (R) [Howard Taylor Conference Room]
12:00 - 1:00 PM — Lunch
1:00 - 2:00 PM — Panel 3: Bridging the Gap between Academic and Industrial Research
Muhammad Shahbaz (M); Rama Govindaraju, Tianyin Xu, Vinu Joseph, Matthew Tancreti, Daniel Kang; Xun Jiao (R)
2:00 - 2:50 PM — Report outs from the 4 breakout sessions:
10 minutes each plus 10 minutes transition time
2:50 - 3:00 PM — Takeaways and invitation for vision papers: Saurabh Bagchi

*All plenary sessions are located in the Feature Gym.