International Symposium on Roadmapping Devices and Systems

ISRDS

International Symposium on Roadmapping Devices and System

MAY 11 & 12, 2022

DAY 1 Read-outs that present the 2022 International Roadmap for Devices and Systems (IRDS): "2022 IRDS Roadmap Summaries"

The IRDS™ topics are a forecast of technology and systems characteristics, needed technologies, and capabilities of the microelectronics and systems industries. The intent is to focus on academic, manufacturing, supply, and research coordination regarding the development of microelectronic devices and systems.

DAY 2 Highlights from the 2021 IEEE International Conference on Rebooting Computing (ICRC 2021): "New Directions for Computing"

The IEEE International Conference on Rebooting Computing is the premier venue for novel computing approaches, including algorithms and languages, system software, system and network architectures, new devices and circuits, and applications of new materials and physics. This is an interdisciplinary conference that has participation from a broad technical community, with emphasis on all aspects of the computing stack.

REGISTRATION LINK

LIVE VIRTUAL SESSIONS IN MAY

OVER 20 VIDEOS ON DEMAND AVAILABLE TO REGISTRANTS

	REGISTRATION PRICE	
MEMBER TYPE	Single Day	Both Days
IEEE Member	$25.00	$40.00
IEEE Life Member	$10.00	$20.00
Non-Member	$49.00	$80.00
IEEE Student Member	$15.00	$20.00
Student Non-Member	$20.00	$30.00

Need assistance or have questions? Contact irds_info@ieee.org

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DAY 1 IRDS 2022 SUMMARIES

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MAY 11, 2022: DAY 1 - IRDS 2022 Roadmap Readouts			
Provisional Program			
TIMEZONE IS USA EASTERN			
Start time	End time	Topics	Speaker
11:00 AM	11:15 AM	Regional Opening Greetings	Francis Balestra, Tom Conte, Yoshihiro Hayashi
11:15 AM	11:30 AM	IRDS Introduction	Paolo Gargini
NEW INTERNATIONAL FOCUS TEAMS			
11:30 AM	11:40 AM	Mass Data Storage Introduction	Tom Coughlin
11:40 AM	11:50 AM	Autonomous Machine Computing Introduction	Shaoshan Liu
SYSTEMS AND DEVICE DRIVERS			
11:50 AM	12:10 PM	Application Benchmarking	Tom Conte
12:10 PM	12:30 PM	Systems and Architectures	Kirk Bresniker
12:30 PM	12:50 PM	More Moore	Mustafa Badaroglu
12:50 PM	1:05 PM	Q&A	

MAY 11, 2022: DAY 1 - IRDS 2022 Roadmap Readouts			
Start time	End time	Topics	Speaker
FUTURE DEVICES			
1:05 PM	1:25 PM	Beyond CMOS and ERM	Shamik Das
1:25 PM	1:45 PM	Cryogenic Electronics and Quantum Information Processing	Scott Holmes
1:45 PM	1:55 PM	Q&A	
1:55 PM	2:15 PM	Break	
HETEROGENEOUS INTEGRATION			
2:15 PM	2:35 PM	Outside System Connectivity	Michael Garner
2:35 PM	2:55 PM	Packaging Integration	Dev Gupta
2:55 PM	3:10 PM	ESH/S	Leo Kenny
3:10 PM	3:25 PM	Q&A	
MANUFACTURING PILLARS			
3:25 PM	3:45 PM	Factory Integration	Supika Mashiro
3:45 PM	4:05 PM	Lithography	Harry Levinson
4:05 PM	4:25 PM	Yield	Dan Wilcox
4:25 PM	4:45 PM	Metrology	Ben Bunday
4:45 PM	5:00 PM	Q&A	
5:00 PM	5:15 PM	Next Steps and Closing Remarks	Paolo Gargini

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DAY 2 NEW DIRECTIONS IN COMPUTING

MAY 12, 2022: DAY 2 - New Directions in Computing

Provisional Program

TIMEZONE IS USA EASTERN

Start time	End time	Topics	Speaker
12:00 PM	12:10 PM	Opening Greetings	Elie Track and Tom Conte
12:10 PM	1:10 PM	Keynote	
1:10 PM	1:20 PM	Q&A	
1:20 PM	1:35 PM	Overcoming Integration Challenges in Adiabatic Superconductor Electronics for Energy-Efficient	Christopher Ayala
1:35 PM	1:40 PM	Q&A	
1:40 PM	1:55 PM	Hopfield algorithm for constrained optimization of the Knapsack problem	Suhas Kumar
1:55 PM	2:00 PM	Q&A	
2:00 PM	2:30 PM	Assessing a Neuromorphic Platform for use in Scientific Stochastic Sampling	Darby Smith
2:30 PM	2:35 PM	Q&A	
2:35 PM	3:05 PM	Cryogenic CMOS Design for Adiabatic Reversible Computing	Rene Celis-Cordova
3:05 PM	3:10 PM	Q&A	
3:10 PM	3:40 PM	Optimized Quantum Program Execution Ordering to Mitigate Errors in Simulations of quantum systems	Teague Tomesh
3:40 PM	3:45 PM	Q&A	
3:45 PM	4:00 PM	Closing Remarks	Elie Track/Tom Conte

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