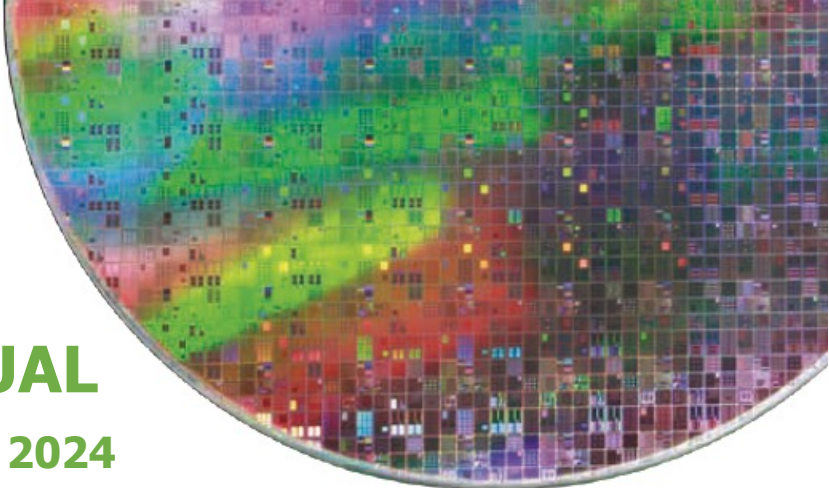


9th CIES Technology Forum VIRTUAL



March 21 (Thu) – 22 (Fri), 2024

International Symposium

March 21 (Thu) | **DAY 1**

Part 1 [Live] 9:00-12:05 (JST)

JST	PDT	CET		
9:00-9:05	March 20 17:00-17:05	1:00-1:05	Opening remarks	Tetsuo Endoh (Tohoku Univ.)
9:05-9:30	17:05-17:30	1:05-1:30	Invited talk 1 Breakthrough innovation: IOWN - For value creation and sustainability -	Katsuhiko Kawazoe (NTT)
9:30-9:55	17:30-17:55	1:30-1:55	Invited talk 2 Semiconductor industry expected to grow at a different level	Akira Minamikawa (OMDIA)
9:55-10:20	17:55-18:20	1:55-2:20	Invited talk 3 Advanced semiconductor technologies that shape the future of our society	Terry Higashi (Rapidus / LSTC)
10:20-10:45	18:20-18:45	2:20-2:45	Invited talk 4 3D memory stacking for AI/LLM	Joe Wu (JSMC / PSMC Japan)
10:45-11:10	18:45-19:10	2:45-3:10	Invited talk 5 High energy efficiency technology for power electronics systems	Ikuya Sato (Fuji Electric)
11:10-11:35	19:10-19:35	3:10-3:35	Invited talk 6 5,000Watts/in ³ power density in a 48-12V di-directional DC-DC converter for AI servers	Michael de Rooij (Efficient Power Conversion)
11:35-12:00	19:35-20:00	3:35-4:00	Invited talk 7 Integrated power module and control unit technology using WBG devices	Yoshikazu Takahashi (Tohoku Univ.)
12:00-12:05	20:00-20:05	4:00-4:05	Closing remarks	Tetsuo Endoh (Tohoku Univ.)

Part 2 [Streaming] 17:00-20:05 (JST)

JST	PDT	CET		
17:00-17:05	1:00-1:05	9:00-9:05	Opening remarks	Tetsuo Endoh (Tohoku Univ.)
17:05-17:30	1:05-1:30	9:05-9:30	Invited talk 1 Breakthrough innovation: IOWN - For value creation and sustainability -	Katsuhiko Kawazoe (NTT)
17:30-17:55	1:30-1:55	9:30-9:55	Invited talk 2 Semiconductor industry expected to grow at a different level	Akira Minamikawa (OMDIA)
17:55-18:20	1:55-2:20	9:55-10:20	Invited talk 3 Advanced semiconductor technologies that shape the future of our society	Terry Higashi (Rapidus / LSTC)
18:20-18:45	2:20-2:45	10:20-10:45	Invited talk 4 3D memory stacking for AI/LLM	Joe Wu (JSMC / PSMC Japan)
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20:00-20:05	4:00-4:05	12:00-12:05	Closing remarks	Tetsuo Endoh (Tohoku Univ.)

Organizer: Center for Innovative Integrated Electronic Systems (CIES), Tohoku University

Co-sponsored: Research Institute of Electrical Communication (RIEC), Tohoku University

Sponsors: CAO, MEXT, METI, JPO, JSPS, JST, NEDO, INPIT

9th CIES Technology Forum VIRTUAL

March 21 (Thu) – 22 (Fri), 2024

Progress Report

March
22 (Fri) | DAY2

Part 1 [Live] 9:00-12:10 (JST)

9:00-9:05	Welcome address President, Tohoku Univ.	Hideo Ohno (Tohoku Univ.)
	Address President, SEMI Japan	Masahiko (Jim) Hamajima (SEMI Japan)
	Address Director-General, Research and Development Bureau, MEXT	Yoshiyuki Chihara (MEXT)
9:05-9:35	Address Deputy Director-General, Industrial Science and Technology Policy and Environment Bureau, METI	Tetsuya Tanaka (METI)
	Address Director-General, Patent Examination Department (Electronic Technology), JPO	Soichi Yushina (JPO)
9:35-10:05	CIES Overview	Tetsuo Endoh (Tohoku Univ.)
10:05-10:25	Industry-academic collaboration STT-MRAM Aimed at Developing Non-Volatile Working Memory and its Manufacturing Technologies	Shoji Ikeda (Tohoku Univ.)
10:25-10:45	Industry-academic collaboration Embedded Security Technology	Naofumi Homma (Tohoku Univ.)
10:45-11:05	Industry-academic collaboration Development of high-speed non-contact AI thermal camera for multi-personnel detection	Tetsuo Endoh (Tohoku Univ.)
11:05-11:20	MEXT X-nics Innovative Spintronics X Semiconductor Research Hub	Tetsuo Endoh (Tohoku Univ.)
11:20-11:35	NEDO AIC Design efficiency of AI processing semiconductors by CMOS/spintronics-hybrid technology and its applications	Takahiro Hanyu (Tohoku Univ.)
11:35-11:50	JSPS Core-to-Core Spintronics/Vertical elements of two-dimensional materials	Hiroshi Naganuma (Tohoku Univ.)
11:50-12:05	MEXT INNOPEL (Innovative Power Electronics Technologies) Integrated Power Electronics for the Realization of a Decarbonized Society	Yoshikazu Takahashi (Tohoku Univ.)
12:05-12:10	Closing Remarks	Tetsuo Endoh (Tohoku Univ.)

Part 2 [Streaming] 17:00-19:35 (JST)

17:00-17:30	CIES Overview	Tetsuo Endoh (Tohoku Univ.)
17:30-17:50	Industry-academic collaboration STT-MRAM Aimed at Developing Non-Volatile Working Memory and its Manufacturing Technologies	Shoji Ikeda (Tohoku Univ.)
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19:30-19:35	Closing Remarks	Tetsuo Endoh (Tohoku Univ.)

Organizer: Center for Innovative Integrated Electronic Systems (CIES), Tohoku Univ.

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