

The Sustainable Growth in Physical Space with Innovative Integrated Electronic Technologies

*From ultra low power edge computing
and car electronics to AI systems*



TOHOKU
UNIVERSITY



5th CIES Technology Forum

March 24 - 26, 2019

DAY 3

March 26, 2019

Otemachi Sankei Plaza 3F (1-7-2 Otemachi, Chiyoda-ku, Tokyo)

JST OPERA Symposium

Welcome address	Yoshinori Yajima (Tohoku Univ.)
Address	Masaaki Nishijo (MEXT) Yoshihiro Noguchi (JST)
Keynote	Akihiko Kanouda (HITACHI)
Overview	Tetsuo Endoh (Tohoku Univ.)
Progress report	Shunsuke Fukami (Tohoku Univ.) Hideo Sato (Tohoku Univ.) Yoshikazu Takahashi (Tohoku Univ.) Masanori Natsui (Tohoku Univ.) Ryo Tamura, Naoyoshi Watanabe (ADVANTEST) Shigeyuki Sato, Ryoichi Utsumi, Naoya Koiso (Toei Scientific Industrial) Masatomo Takahashi (TOKYO SEIMITSU) Hidehiro Kiyofuji (MICRONICS JAPAN) Kenichi Nonaka (KEIHIN) Yoshinari Ikeda (FUJI ELECTRIC)
Closing remarks	Tetsuo Endoh (Tohoku Univ.)

JST ACCEL Symposium

Welcome address	Yoshinori Yajima (Tohoku Univ.)
Address	Tadatoshi Kaneko (MEXT) Yoshimasa Goto (JST)
Keynote	Nobuhiro Misawa (MIFS)
Overview	Tetsuo Endoh (Tohoku Univ.)
Progress report	Tetsuo Endoh (Tohoku Univ.) Kenji Shiraishi (Nagoya Univ.) Hiroyuki Kageshima (Shimane Univ.) Kohei Itoh (Keio Univ.) Koji Izunome (GWJ)
Closing remarks	Toru Masaoka (JST)

Sponsors MEXT, JST

Registration

[www.cies.tohoku.ac.jp/
5th_forum/entry.html](http://www.cies.tohoku.ac.jp/5th_forum/entry.html)

Registration fee: Free
Pre-registration deadline:
March 20, 2019

Tohoku University Center for Innovative Integrated Electronic Systems

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5th CIES Technology Forum

March 26, 2019
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**JST-OPERA
JST-ACCEL
Symposium**

**The Sustainable Growth in Physical Space
with Innovative Integrated Electronic Technologies**
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DAY 3

JST OPERA Symposium

<<<Registration desk open at 8:15am>>>

9:00-9:20	Welcome Address	Executive Vice President, Tohoku Univ.	Yoshinori Yajima (Tohoku Univ.)
	Address	Director, University-Industry Collaboration and Regional R&D Division, Science and Technology Policy Bureau, MEXT	Masaaki Nishijo (MEXT)
	Address	Director, Department of Innovation Platform, JST	Noguchi Yoshihiro (JST)
9:20-9:50	Keynote	Approach on Cascaded SST Technology of HITACHI aiming for innovation in power conversion	Akihiko Kanouda (HITACHI)
9:50-10:05	OPERA	Overview	Tetsuo Endoh (Tohoku Univ.)
10:05-10:25		Shape-anisotropy magnetic tunnel junction for large-capacity STT-MRAM	Shunsuke Fukami (Tohoku Univ.)
10:25-10:45		Basic technology for Intelligent transport system	Masanori Natsui (Tohoku Univ.)
			Hideo Sato (Tohoku Univ.) Ryo Tamura, Naoyoshi Watanabe (ADVANTEST) Shigeyuki Sato, Ryoichi Utsumi, Naoya Koiso (Toei Scientific Industrial) Masatomo Takahashi (TOKYO SEIMITSU) Hidehiro Kiyofuji (MICRONICS JAPAN)
10:45-11:05	R&D for testing of spintronics-based LSI		
11:05-11:25		Power electronics technology with GaN on Si device	Yoshikazu Takahashi (Tohoku Univ.)
11:25-11:45		The present and future of automotive electrification	Kenichi Nonaka (KEIHIN)
11:45-12:05		Current status and future of power module technology	Yoshinari Ikeda(FUJI ELECTRIC)
12:05-12:15		Closing remarks	Tetsuo Endoh (Tohoku Univ.)

JST ACCEL Symposium

13:30-13:50	Welcome Address	Executive Vice President, Tohoku Univ.	Yoshinori Yajima (Tohoku Univ.)
	Address	Director, Basic Research Promotion Division, Research Promotion Bureau, MEXT	Tadatoshi Kaneko (MEXT)
	Address	Executive Director, JST	Yoshimasa Goto (JST)
13:50-14:30	Keynote	A Constant Challenge to Low Power Consumption Device for IoE Society	Nobuhiro Misawa (MIFS)
14:30-14:40	ACCEL	Overview	Tetsuo Endoh (Tohoku Univ.)
14:40-15:20		Development of vertical BC-MOSFET and development to high density working memory and logic	Tetsuo Endoh (Tohoku Univ.)
15:20-15:50		Control of interfacial atoms to support 3D structure MOSFET ① Approach from computational science	Kenji Shiraishi (Nagoya Univ.) Hiroyuki Kageshima (Shimane Univ.)
15:50-16:20		Control of interfacial atoms to support 3D structure MOSFET ② Approach from nano measurement	Kohei Itoh (Keio Univ.) Tetsuo Endoh (Tohoku Univ.) Koji Izunome (GWJ)
16:20-16:50		Wafer technology for 3D Devices	Koji Izunome (GWJ)
16:50-17:00		Closing remarks	Toru Masaoka (JST)

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