

**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

CIES Progress Report
March 25, 2019

Otemachi Sankei Plaza 4F
1-7-2 Otemachi, Chiyoda-ku, Tokyo 100-0004, Japan

Welcome address Hideo Ohno (Tohoku Univ.)

Address Akira Sudo (CAO)
Hiroki Matsuo (MEXT)
Shoji Watanabe (METI)
Takashi Yamashita (JPO)

CIES overview Tetsuo Endoh (Tohoku Univ.)

Progress report Tetsuo Endoh (Tohoku Univ.)
Masanori Hariyama (Tohoku Univ.)
Koichi Ito (Tohoku Univ.)
Yasuo Ando (Tohoku Univ.)
Masaaki Niwa (Tohoku Univ.)
Yasunobu Mizomoto (Tohoku Univ.)

Closing remarks Tetsuo Endoh (Tohoku Univ.)

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

March 24 - 26, 2019

DAY 2

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

468-1 Aramaki Aza Aoba, Aoba-ku,
Sendai, Miyagi, 980-8572, JAPAN
TEL +81-22-796-3410
FAX +81-22-796-3432
support-office@cies.tohoku.ac.jp

www.cies.tohoku.ac.jp

5th CIES Technology Forum

March 25, 2019

Otemachi Sankei Plaza 4F

Progress Report

**The Sustainable Growth in Physical Space
with Innovative Integrated Electronic Technologies**
*From ultra low power edge computing
and car electronics to AI systems*

DAY 2

<<<Registration desk open at 9:15am>>>

10:00-10:30	Welcome address	President, Tohoku Univ.	Hideo Ohno (Tohoku Univ.)
	Address	CAO	Akira Sudo (CAO)
	Address	Director-General, Science and Technology Policy Bureau, MEXT	Hiroki Matsuo (MEXT)
	Address	Deputy Director-General, Industrial Science and Technology Policy and Environment Bureau, METI	Shoji Watanabe (METI)
	Address	Director-General, 4th Patent Examination Department, JPO	Takashi Yamashita (JPO)
10:30-11:10	CIES Overview		Tetsuo Endoh (Tohoku Univ.)
11:10-11:50	<i>Industry-academic collaboration</i> STT-MRAM aimed at developing non-volatile working memory and its manufacturing technologies		Tetsuo Endoh (Tohoku Univ.)
11:50-13:20	Lunch		
13:20-13:50	<i>Industry-academic collaboration</i> Development of a Low-Power and High-Performance Edge AI Processor		Masanori Hariyama (Tohoku Univ.)
13:50-14:20	<i>Industry-academic collaboration</i> Embedded security technology		Koichi Ito (Tohoku Univ.)
14:20-14:50	<i>Industry-academic collaboration</i> Supersensitive magnetic sensors using ferromagnetic tunnel junctions		Yasuo Ando (Tohoku Univ.)
14:50-15:10	Break		
15:10-15:40	<i>JSPS Core-to-Core (Japan – UK – France)</i> Creation of international research hub for innovative semiconductor materials and devices		Masaaki Niwa (Tohoku Univ.)
15:40-16:00	<i>JST ACCEL</i> Three-dimensional integrated circuits technology based on vertical BC-MOSFET and its advanced application exploration		Tetsuo Endoh (Tohoku Univ.)
16:00-16:40	<i>CAO ImPACT</i> Ohno implementation branch: Spintronics integrated circuit project		Tetsuo Endoh (Tohoku Univ.)
16:40-17:00	<i>JST OPERA</i> World-leading open innovation platform of fusion technologies bridged IT and transportation system areas		Tetsuo Endoh (Tohoku Univ.)
17:00-17:20	<i>Community-based cooperation project</i> Progress and prospect of CIES's Community-based cooperation project		Yasunobu Mizomoto (Tohoku Univ.)
17:20-17:40	<i>CAO SIP</i> R&D of ultra low power IoT devices and its technology platform with MTJ/CMOS hybrid technology for Society 5.0		Tetsuo Endoh (Tohoku Univ.)
17:40-17:50	Closing remarks		Tetsuo Endoh (Tohoku Univ.)

Tohoku University Center for Innovative Integrated Electronic Systems

468-1 Aramaki Aza Aoba, Aoba-ku,
Sendai, Miyagi
980-8572, JAPAN
TEL +81-22-796-3410
FAX +81-22-796-3432
support-office@cies.tohoku.ac.jp

