

2009/03/10

URSI Commission C in Japan

21th URSI-C-Japan Chairperson Kenji ITOH

1. Domestic Activities

1.1 Established 21st Commission C Japanese Committee Members

- Enhancement of members from solid-circuit/device area for future signal processing

Chair	Kenji Itoh	Mitsubishi Electric Corp.	
Vice-chair	Naoki Shinohara	Kyoto University	
Chief Secretary	Kazutomi Mori	Mitsubishi Electric Corp.	
Secretary(SSC/ED)	Nobuyuki Itoh	Toshiba Corp.	
Secretary(RCS)	Minoru Okada	Nara Institute of Science and Technology	
Secretary(MW)	Shoichi Narahashi	NTT docomo, Inc.	
Secretary(AP)	Yoshiyuki Fujino	NICT	
Advisory members	Masami Akaike	Tokyo University of Science	
	Kohji Mizuno	Tohoku University	
	Toshiyuki Yakabe	The University of Electro-Communications	
URSI Commission C vice-chair	Takashi Ohira	Toyohashi University of Technology	
Members	Hirotsugu Kubo	Mitsubishi Electric Corp.	
	Junichi Takada	Tokyo Institute of Technology	
	Kazuhiko Fukawa	Tokyo Institute of Technology	
	Kenjiro Nishikawa	Nippon Telegraph and Telephone Corp.(NTT)	
	Minoru Fujishima	The University of Tokyo	
	Mitoshi Fujimoto	University of Fukui	
	Ryo Yamaguchi	NTT docomo, Inc.	
	Satoshi Tsukamoto	ATR	
	(web-master)	Shinichi Ogushi	CQ Publishing Co., Ltd.
		Tadashi Kawai	University of Hyogo
		Tatsuya Ohguro	Toshiba Corp.
		Yasuo Ohno	The University of Tokushima
		Yohei Ishikawa	Murata Manufacturing Co., Ltd.

1.2 New web-site for 21st Commission C Japanese CommitteeJapanese <http://www.ursi-net.org/jp/Commission-C/index.html>English <http://www.ursi-net.org/jp/Commission-C/index-en.html>

1.3 workshops

1.3.1 The 1st scientific workshop presented by the 21st URSI-C in Japan

- i) Rapporteur: Dr. Naoki Shinohara (Kyoto University)
- ii) Session title: "Monolithic Integration of RF Devices and Circuits"
- iii) Convener: Dr. Naoki Shinohara, Kyoto University
- iv) Date/time: 13:00 - 17:00, 7-Nov.-2008
- v) Venue: Kyoto University, Kyoto, Japan
- vi) Registration fee: Free
- vii) Listed attendees: 31 persons
- viii) Local arrangement: Dr. Naoki Shinohara (Kyoto University)
- ix) Presentation: 50 min including Q&A for each speaker
 - * 1. Opening Talk, Dr. Kenji Itoh URSI-C-Japan, Chair
 - * 2. "Active Phased Array with MMIC Technologies," Prof. Shigeo Kawasaki, JAXA.
 - * 3. "CMOS Scaling and Analog/RF Characteristics," Dr. Tatsuya Ohguro, Toshiba.
 - * 4. "Re-configurable RF Circuits with MEMS Switches" Dr. Hiroshi Okazaki, NTT DoCoMo.
 - * 5. "Millimeter Wave CMOS Technologies" Prof. Minoru Fujishima, University of Tokyo.
- x) Reception and Lamp Session at Kurama, Kyoto, Japan.
- xi) The steering committee meeting took place from 08:30 to 10:00 on 8-Nov.-2008.
- xiii) Concluding Remarks

The workshop was held as the first workshop of 21st URSI-C committee. We will discuss semiconductor technologies with RF technologies in this committee period. We had interesting four talks about MMIC, analog/RF CMOS, RF circuits with MEMS, and Millimeter Wave CMOS. In the lamp session, we deeply discussed on a scheme for exchange of researchers between different technical areas.

1.3.2 The 2nd scientific workshop presented by the 21st URSI-C in Japan

- i) Rapporteur: Dr. Shoichi Narahashi, Dr. Ryo Yamaguchi (NTT DOCOMO)
- ii) session title; IMT Advanced
- iii) Date/time: 11:00 - 16:10, 9 January, 2009
- iv) Convener: Dr. Shoichi Narahashi, Dr. Ryo Yamaguchi (NTT DOCOMO)
- v) Venue: Tohoku University, Sendai, Japan
- vi) Registration fee: Free
- vii) Listed attendees: 23 persons
- viii) Local arrangement: Dr. Kenji Itoh, Dr. Kazutomi Mori, (Mitsubishi Electric)
Prof.Koji Mizuno (Tohoku Univ.)
Dr. Shoichi Narahashi, Dr. Ryo Yamaguchi (NTT DOCOMO)
- ix) Presentation: 50 min including Q&A for each speaker

* 1 Opening Talk, Dr. Kenji Itoh URSI-C-Japan, Chair

* 2 "Challenges of radio transmission technologies for IMT-Advanced",

Prof. Fumiyuki Adachi, Tohoku University

* 3 "Standardization process and future trends of radio interface for IMT-Advanced in ITU-R",

Dr. Hitoshi Yoshino, NTT DOCOMO

* 4 "Wireless broadband technologies by eXtended Global Platform",

Mr. Yoshioki Chika, WILLCOM

* 5 "Time-spatial propagation model for next generation mobile communication systems such as IMT-Advanced",

Dr. Teruya Fujii, Softbank Mobile

* 6 "Service requirements for IMT-Advanced",

Dr. Hajime Nakamura, KDDI

x) Reception and Lamp Session at Akiu, Miyagi, Japan.

xi) The steering committee meeting took place from 08:00 to 09:00 on 10 January, 2009.

xii) Concluding Remarks

In this workshop, we had discussed fundamental technologies, standardization process and requirements for IMT-Advanced, the next complete evolution in wireless communications. We had one keynote speech and four interesting talks. These talks include radio transmission technologies and propagation models for achieving high-speed data transmission in mobile environment, standardization strategies and business schemes for IMT-Advanced. In the lamp session, we deeply discussed on a definition and interpretation of "brain communication", and a comprehensive analysis for the oscillation frequency of RF oscillation circuits.

2. International Activities

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