

2010/2/26

URSI Commission C in Japan

21th URSI-C-Japan Chairperson Kenji ITOH

1. Domestic Activities

1.1 workshops

- i) Convener: Tatsuya Ohguro, Toshiba Device Process development center
- ii) Date/time: 11:00 - 17:10, 13-Nov.-2009
- iii) Venue: Izu-resort house of Nihon Dempa Kogyo Co., Shizuoka, Japan
- iv) Registration fee: Free
- v) Listed attendees: 27 persons
- vi) Local arrangement: Tatsuya Ohguro, Toshiba Device Process development center
- vii) Session title: "Near Field Communications;"
- viii) Presentation: 60 min including Q&A for each speaker
 - 1. Opening Talk, Dr. Kenji Itoh URSI-C-Japan, Chair
 - 2. "Inter-chip communication by Inductance coupling," Prof. Tadahiro Kuroda, Keio University
 - 3. "Inter-chip signal transfer by open-ring resonator," Prof. Yasuo Ohno, Tokushima University
 - 4. "Interface for near field communication by millimeter wave " Dr. Toshiro Hiratsuka, Murata Manufacturing Co
 - 5. "Trend of RF MEMS for small size, high accuracy oscillator and next generation mobile telecommunication" Dr. Takeo Oita, Nihon Dempa Kogyo Co.
 - 6. "Body near field communication and the application" Dr. Yuichi Kado, NTT
 - 7. Concluding Remarks

ix)

This workshop was entitled "Near Field Communications" and presented five talks. Not only application but also cost, performance and future trend were discussed. First presentation is inter-chip communication of high-speed digital signal which is attractive for high speed, low cost and low power consumption.

Second is Inter-chip signal transfer, which is useful for low cost assembly technique for especially millimeter wave application. Third is Interface for near field communications by millimeter wave, which is important item from point of view of the users. Fourth is topics and trend of RF MEMS. Presenter is sure that RF switch will be key technology because of low loss and high isolation. Final is body near field communication and the application. Security system will be simple because that can be recognized through just their body without any cards. Many attendances actively and deeply discussed their questions in order to clear those. In night session, future power amplifier device, especially Si MOS was discussed. Also education issues for high frequency circuit were discussed.

2. International Activities

(1) AP-RASC2010 activities

URSI-C chair is encouraging to submit papers to following sessions:

CBDEFK1: Radio technology for social safety and security (T. Ohira and S. Aikawa (Japan))
CBDEFK2: Standardization activities in radio science (Y. Takatori (Japan) and M. Cheong (South Korea))
CBDF: Green radio technologies (K. Okada and R.Fujimoto (Japan))
CBDFK: Novel radio communication systems (Y. Suzuki (Japan) and G. Dietl (Germany))
CBF1: Cognitive and software defined radio systems (S. Hara (Japan) and K. Lee (South Korea))
CBF2: Radio signal processing toward Shannon limits (K. Fukawa (Japan) and L. Chen (China (CIE)))
CBH: Wireless power transmission from space (N. Shinohara (Japan) and B. Shishkov (Bulgaria))
CD: Theoretical analysis and synthesis of analog RF circuits (T. Ohira (Japan) and T. Angkaew (Thailand))
U: Radio science activities in Asia-Pacific area(M. Krairiksh (Thailand) and K. Itoh (Japan))

(2) URSI-GA 2011 activities

Japanese URSI-C committee has started to propose sessions for the next URSI-GA in 2111.