
IEEE SSCS講師(IEEE SSCS Distinguished Lecturer)による回路セミナー

この度、IEEE SSCS Japan/Kansai Chapterでは下記の日程で、IEEE SSCS講師(IEEE SSCS Distinguished Lecturer)であるモントリオール理工科大学のMohamad Sawan教授による回路セミナーを東京と大阪において開催することとなりました。大変貴重な御講演ですので、どうぞ奮って御参加下さい。なお、御講演内容は東京、大阪開催で共通です。参加費は無料です。

(東京地区開催)

日時: 2012年5月24日(木) 10:30-12:00

場所: 東京工業大学 大岡山キャンパス
百年記念館3階 フェライト記念会議室
〒152-8550 東京都目黒区大岡山2-12-1 百年記念館
<http://www.cent.titech.ac.jp/Information/map.html>
百年記念館へのアクセス:
東急目黒線・大井町線大岡山駅下車徒歩1分
東京工業大学大岡山キャンパス・正門わき

主催: IEEE SSCS Japan Chapter
共催: IEEE SSCS Kansai Chapter
参加申込み: 不要
問合せ先: IEEE SSCS Japan Chapter Secretary 大島俊(日立)
takashi.oshima.yp@hitachi.com

プログラム

10:30-10:35 Opening:
川人 祥二(静岡大学) SSCS Japan Chapter Vice Chair

10:35-12:00 Prof. Mohamad Sawan 御講演:

Title: Brain-Machine-Brain Interfaces for Massively Parallel
Neurorecording and Microstimulation

講演概要:

Emerging Brain-Machine Interfaces for diagnostic and recovery of neural vital functions are promising alternative to allow studying the neural activity underlying cognitive functions and pathologies, detecting mind driven decisions, etc. This talk covers integrated circuits and systems techniques used for the design and integration of Microsystems intended for wireless neurorecording. Both conventional spike detection and new neurotransmission characteristics will be presented. In addition to data sampling, spike detection, data compression and wireless transmission will be reported. Also, harvesting energy to power up bioelectronic devices and to bidirectional exchange of data with external base stations will be explained. Inductive links are used to comply with required power budget, and data rates specific for up and down links, which are intended for recording and data transmission respectively. Global view of fully implantable CMOS-based devices will be given and case studies of continuous EcoG recording intended to onset detection of epileptic seizures, and for learning about the vision mechanism will be described.

Sawan教授の略歴:

Mohamad Sawan received the Ph.D. degree in 1990 in EE Dept., from Sherbrooke University, Canada. He joined Polytechnique Montreal in 1991, where he is currently a Professor of microelectronics and biomedical engineering. Dr. Sawan is a holder of a Canada Research Chair in Smart Medical Devices, he is leading the Microsystems Strategic Alliance of Quebec, and is founder of the Polystim Neurotechnologies Lab. Dr. Sawan is founder and cofounder of several international conferences such as the NEWCAS and BIOCAS. He is also cofounder and Associate Editor of the IEEE Trans. on BIOCAS, he is Deputy Editor-in Chief of the IEEE TCAS-II, and he is Editor and Associate Editor, and member of the board of several international Journals. Dr. Sawan published more than 500 peer reviewed papers, 2 books, 10 book chapters, and 10 patents. Dr. Sawan received several awards, and he is Fellow of the IEEE, Fellow of the Canadian Academy of Engineering, Fellow of the Engineering Institute of Canada, and Officer of the Quebec's National Order.

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