

## ASPICC

Dpt. of Instrumentation and Control Eng.  
Faculty of Mechanical Engineering  
Czech Technical University in Prague

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## DSP

Digital Signal and Image Processing  
Dpt. of Computing and Control Eng.  
Institute of Chemical Technology

invite you for 6<sup>th</sup> seminar

### DSP 6/2015 - Seminar Series on Digital Signal Processing

on Monday November 2 at 10:30-12:00 am

in room A17 (Faculty of Mechanical Engineering)

#### Program:

**10:30-11:30: A Challenge: Development of Real-time Image Guided Radiotherapy - Tumor Tracking and Conformable Irradiation**

Speaker:

**Prof. Noriyasu Homma**



**Tohoku University Graduate School of Medicine**

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**Graduate School of Biomedical Engineering, Tohoku University, Japan**



**Noriyasu Homma** received a BA, MA, and PhD in electrical and communication engineering from Tohoku University, Japan, in 1990, 1992, and 1995, respectively. He is currently a professor of the Department of Radiological Imaging and Informatics at the Tohoku University Graduate School of Medicine and the Intelligent Biomedical System Engineering Lab at the Graduate School of Biomedical Engineering, Tohoku University. From 2000 to 2001, he was a visiting professor at the Intelligent Systems Research Laboratory, University of Saskatchewan, Canada. His current research interests include neural networks, complex and chaotic systems, soft-computing, cognitive sciences, medical systems and brain sciences.

**11:30-12:00: Prediction and Control of Respiration-Induced Lung Tumor Motion for Accurate Radiotherapy**

Speaker:

**Dr. Kei Ichiji**



**Research fellow of Japan Society for the Promotion of Science, Department of Therapeutic Radiology, Tohoku University Graduate School of Medicine, Japan**



**Kei Ichiji** graduated from Tokyo Metropolitan College of Industrial Technology, Japan, and received the B.Eng. degree from National Institution for Academic Degrees, Japan in 2009. He received the M.Eng. and PhD degrees in engineering from Tohoku University, Japan, in 2011 and 2014 respectively. He was a postdoctoral fellow at Research Institute of Electrical Communication, Tohoku University from 2014 to 2015. He is currently a research fellow of Japan Society for the Promotion of Science in Tohoku University Graduate School of Medicine. He has engaged in application of signal processing for intelligent control of radiation therapy machine. He is a member of the Society of Instrument and Control Engineers, the American Association of Physicists in Medicine, the IEEE CIS and the IEEE EMBS.