

平成 23 年 7 月 1 日

関係各位

システム制御研究会

主査 吉澤 誠

幹事 本間経康

下記のとおり、**第 89 回システム制御研究会**を開催しますので多数ご来聴くださいますよう、ご案内申し上げます。

記

- 日時：平成 23 年 7 月 15 日（金） 15：00～16：30
- 会場：東北大学サイバーサイエンスセンター5 階講義室
仙台市青葉区荒巻字青葉 6－3
<http://www.isc.tohoku.ac.jp/map.html>
- 講演者 1： Dr. Jan Hrdlička (Czech Technical University in Prague, Czech Republic)
- 演題：Renewable energy in Europe: Wind and solar energy, alternative fuels and future research in combustion technologies
- 講演要旨：The presentation describes current situation with the energy share for electricity generation in Europe and the present state of the art in utilization of the renewable energy sources, with focus on wind and solar energy. It also shows a trend during last years and current problems with wind power installation in Northern Germany (impact on transition network) and there is also shown Spain as the leading country in concentration solar power implementation. A fast renewable energy development in context of impact on local energy system and market is shown on example of the Czech Republic. In the second part of presentation, replacement of fossil fuels by alternative fuels as an important current trend is shown in order to demonstrate possible ways of research in this area, focused on combustion technologies.
- 講演者 2： Dr. Ivo Bukovsky (Czech Technical University in Prague, Czech Republic)
東北大学サイバーサイエンスセンター 客員研究員
- 演題：Nonconventional neural architectures, adaptive methodology, and multi-scale analysis: challenges for biomedical engineering applications
- 講演要旨：This talk will review the important aspects of higher order neural architectures that are promising for research and applications. Those reviewed aspects are the good quality of nonlinear approximation, simple mathematical architecture, linear nature of optimization problem avoiding local minima problem, and practical advantages for HW implementations such as for FPGA. In respect to that, the recently introduced adaptive

methodology for real time monitoring of complicated dynamic time series by low-dimensional neural architectures will be reviewed and recent results on monitoring of theoretical hyper-chaotic system, and real ECG, R-R, and lung motion time series will be discussed. In the end, the need for multi-scale analysis approaches will be concluded to answer the current issues of cognitive modeling approaches and the adaptive methodology.

- 共催：計測自動制御学会東北支部
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以上