

# Proceedings of NCN'09



## 2009 IEEE Workshop on Nonlinear Circuit Networks

**Shikoku University,  
Tokushima, Japan  
December 11-12, 2009**

**Organizer:  
IEEE Circuits and Systems Society, Shikoku Chapter**

# Greeting Message

Welcome to the 2009 IEEE Workshop on Nonlinear Circuit Networks (NCN'09), and welcome to Tokushima, a mecca for nonlinear science researchers in Japan. The NCN has been founded as a closed internal workshop to provide a forum for exchange of the latest results related to nonlinear circuit networks by Prof. Ushida and Prof. Tanaka in 1995. In 2006, NCN'06 was organized as the first open NCN workshop sponsored by the IEEE CAS Society Shikoku Chapter preceded by 17 closed NCN workshops held in Tokushima, Tokyo, Nobeyama and Karuizawa. In 2007 and 2008, a closed NCN workshop was held in Tokyo and the second and the third open NCN workshops (NCN'07 and NCN'08) were organized by the IEEE CAS Society Shikoku Chapter in Tokushima.

In this year, the NCN'09 technical program committee received 37 contributions (the largest number in the NCN history) for the regular sessions. All these papers were carefully evaluated by 3 different reviewers. Finally, 19 papers (only 51.35%) are accepted for oral presentation at the workshop. In order to provide a chance of presentation for more young researchers, the organizing committee selected 10 more papers for poster presentation. The total acceptance rate including poster papers becomes 78.38% (29 out of 37). We appreciate all of the contributions by many research groups. The technical program is highlighted by three invited talks. Dr. Arai of Aichi University of Technology, Prof. Endo of Meiji University, and Dr. Nakano of Tokyo City University give special talks on their recent research results. We wish to thank all of the reviewers for their devoted efforts to give many useful comments to the authors, particularly to the student authors, within very short time. We hope that all of you find this workshop interesting and fruitful. Enjoy NCN'09 and Tokushima.



Yoshifumi Nishio, General Chair  
Tetsushi Ueta, Technical Program Chair

# Workshop Information

## Organizer

IEEE CAS Society, Shikoku Chapter

## In Cooperation with

IEICE Shikoku Section  
Sophia University Open Research Center

## Workshop Committee

- General Chair: Yoshifumi Nishio (Tokushima University)
- Technical Program Chair: Tetsushi Ueta (Tokushima University)
- Secretary: Yasuteru Hosokawa (Shikoku University)

## Advisory Committee

- Akio Ushida (Tokushima Bunri University)
- Mamoru Tanaka (Sophia University)
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- Kenya Jinno (Nippon Institute of Technology)