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TOPIC:

Applications of coupled nonlinear micro-electro-mechanical resonators

ABSTRACT:

Micro-electro-mechanical systems (MEMS) has been interested in for the applications in wide area. MEMS resonators are most expected devices in sensors with their high-Q characteristics. On the other hand, nonlinear characteristics of MEMS are also valuable to achieve their multi-function by device operations. In this talk, the recently developed nonlinear resonators and the applications to MEMS logic devices are mainly discussed.

PROFILE:

Takashi Hikihara was born at Kyoto, Japan in 1958. He received PhD from Kyoto University. From 1987 to 1997 he was with Kansai University, Osaka, Japan and a visiting researcher at Cornell University, USA from 1993 to 1994. In 1997 he became an associate professor of Kyoto University in Department of Electrical Engineering. He is currently a full professor of the department and the Director General of Library Network in Kyoto University and the Dean of the main Library.

His research interests are including nonlinear science, analysis of nonlinear system, applications and control of nonlinear dynamics, nano-mechanical systems, and power electronics. He is currently a member of editorial board in Journal of Vibration and Control and NOLTA, IEICE. He is a regular member of the IEEE, APS, SIAM, IEICE, ISICE and IEE, Japan.