PONDICHERRYUNIVERSITY

School of Physical, Chemical & Applied Sciences

Department of Physics

Invited Lecture

On

NONLINEAR DYNAMICS OF ELECTRONIC SYSTEMS

By

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Date: 5th March 2014.
Time: 3.30 PM
Venue: Raman seminar Hall, Dept. of Physics.

All are invited

Head of the Department of Physics

NONLINEAR DYNAMICS OF ELECTRONIC SYSTEMS

In this talk, based on the terminal characteristics of electronic elements, classification of linear and nonlinear devices will be discussed. By grouping linear and nonlinear devices, the dynamical phenomena of the circuits will be analyzed. Even if these circuits exhibit some bizarre phenomena, utilizing them for useful applications will be considered. Further, answers to inevitable problems in certain nano-electronic devices and circuits will addressed by exploiting nonlinearity.

References:

1. Reliable Logic Circuit Elements that Exploit Nonlinearity in the Presence of a Noise Floor
Phys. Rev. Lett. **102**, 104101 (2009)
K. Murali, Sudeshna Sinha, William L. Ditto, and Adi R. Bulsara

2. Logic from nonlinear dynamical evolution
Phys.Lett A **373**, 1436-1351 (2009).
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