

# NATIONAL CONFERENCE ON APPLIED NONLINEAR DYNAMICS

(NCAND-2016)

21-22, December 2016

Organised by

Department of Mathematics, National Institute of Technology Warangal  
and

Indian Institute of Geomagnetism, Navi Mumbai



## CALL FOR PAPERS - FIRST ANNOUNCEMENT

**Overview:** Virtually every concept in nature is illustrated by some application to science or engineering. The systems that can be modelled by nonlinear algebraic and/or nonlinear differential equations are known as nonlinear systems. This is the subject that deals with change and with the systems that evolve in time. Whether the system in question settles down to equilibrium, keeps repeating in cycles, or does something more complicated, it is the principles of dynamics that is used to analyse the behaviour of the system. The dynamical systems are an interdisciplinary subject today, which has vast applications in science and engineering.

**Aim:** The main focus of the conference is to bring together leading academicians, scientists and researchers working on different aspects of **nonlinear dynamics** on a common platform to exchange and share their vast experiences. It also provides an interdisciplinary forum for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns, practical challenges encountered and the solutions adopted in the field of **nonlinear dynamics**.

**Scope:** All nonlinear dynamics phenomena associated with mechanical, structural, civil, aeronautical, oceanography, electrical and control systems etc. will be deliberated. Highlighted areas include, but not limited to, the dynamics of biological, chemical, physical, water resources, social, and financial systems etc., using numerical, applied and computational analysis.

### Conference Committee

PATRONS: Prof. G.R.C. Reddy, Director I/C, NITW & Prof. D S Ramesh, Director, IIG.

#### Scientific Committee

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Prof. I.A.K. Reddy, Professor in-charge, CEP

#### Conveners

##### Dept. of Mathematics, NITW

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#### Organising Committee:

Department of Mathematics, NITW  
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Prof. JVR Murthy Prof. D. Dutta  
Dr. D. Srinivasacharya Dr. P. Muthu  
Dr. J. Pranitha Dr. R.S. Selvaraj  
Dr. A. Benerji Babu Dr. T. Kurmaya  
Dr. D. Bhargavi Dr. Ch. Ram Reddy  
from Indian Institute of Geomagnetism  
Dr. S. Sripathi

#### Co-conveners

Indian Institute of Geomagnetism  
Prof. A. Kumar Sinha & Dr. Geeta Vichare  
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[vicharegeeta@gmail.com](mailto:vicharegeeta@gmail.com)

**Structure:** Plenary talks, Invited talks, Oral and poster presentations and Mini-symposia.

Abstracts not exceeding 200 words with the names, affiliations, email-ids should be submitted in MS-Word format to [ncand2016@gmail.com](mailto:ncand2016@gmail.com). The proposals for **Mini-Symposium** should consist of presentation of minimum four papers focused on one of the conference themes. A symposium proposal, as a single MS-Word doc, should contain title, short write up (not exceeding 300 words) and list of proposed speakers, followed by a series of paper abstracts. All submitted and accepted full length papers, in the prescribed format, will be blind peer reviewed by two competent reviewers.

Selected papers presented in the conference will be published in Springer proceedings or in a referred Journal of Applied Fluid Mechanics on payment of nominal charges besides registration fee.

### Important Dates

Submission of Abstracts / Mini-symposium proposals to <a href="mailto:ncand2016@gmail.com">ncand2016@gmail.com</a>	Oct 21, 2016
Notification of Acceptance	Oct. 31, 2016
Submission of Full length Papers (if required to be included in proceedings)	Nov. 21 2016

### Registration Fee

Category	Early Registration (up to Nov. 21, 2016)	Late Registration
Students and Research Scholars	Rs. 1,500/-	Rs. 2,000/-
Faculty & Scientists from R&D	Rs. 2,000/-	Rs. 2,500/-
Participants from Industry	Rs. 4,000/-	Rs. 4,500/-
Accompanying person	Rs. 800/-	

The registration form and mode of payment details are available in [www.nitw.ac.in/ncand-2016/index.php](http://www.nitw.ac.in/ncand-2016/index.php)

The registration fee includes Conference kit, Breakfast, Lunch, Dinner, mid-session tea and snacks only. Conference kit is not included for the accompanying person. \* Only limited accommodation is available in the institute premises on nominal charges and will be provided on first come first serve basis.

#### About NITW and Department of Mathematics:

National Institute of Technology (formerly Regional Engineering College), Warangal (NITW) was established in the year 1989. There are 14 academic Departments offering 8 undergraduate and 29 post-graduate programs besides doctoral programs. About 5,000 students across the country and 800 international students pursue their education in the campus. It is a fully residential campus sprawling over 250 acres with excellent infrastructure in the form of state of art library, seminar halls, guest houses and laboratories. The Department of Mathematics was established in 1989 and has always shared the vision of the institute in striving for excellence in teaching and research activities and it is recognized as the only QIP centre for PhD programmes among all NITs. The department runs two M.Sc programs, one is a convectional M.Sc program and the other one is specializing in Mathematics with Scientific Computing keeping in tone with the software

industry. Recently the department has signed a MoU with Indian Institute of Geomagnetism for scientific and academic cooperation.

#### About Indian Institute of Geomagnetism (IIG):

The IIG is a leading national institute, actively engaged in basic and applied research in Geomagnetism and allied areas of Geophysics, Atmospheric & Space Physics and Plasma Physics. Scientists are involved in theoretical analysis, numerical simulations, analysis of observational data and their interpretations. This institute started as a successor to the Colaba Magnetic Observatory, where the first regular magnetic observatory in the country was established in 1841. In 1971, IIG became an autonomous institution under DST. In addition, IIG also provides infrastructural support, using state-of-the-art technology, for acquisition of high quality scientific data at three of its regional centers and twelve magnetic observatories

spread all over the country, leading to frontline research in Geosciences.

#### Venue:

NITW, Warangal, Telangana, 506 004, India

#### Contact Details:

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The Conference offers the opportunity to become a sponsor or exhibitor in the Conference. For further details the conveners can be approached.

<http://cms.nitw.ac.in/ncand2016/index.php>