

EXTENDED ABSTRACT SUBMISSION

The maximum page limit of extended abstract is one A-4 size page, including figures/ tables/ equations/ references typed in a double column preferably in MS Word with 1.5 spacing, 12 point font size and in TIMES NEW ROMAN font. The title of the paper should be bold and in all capital.

INSTRUCTIONS FOR AUTHORS FOR PREPARING ONE PAGE EXTENDED ABSTRACT

WAVELET ANALYSIS OF EARTHQUAKE PRECURSORY SIGNALS

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ABSTRACT

The maximum page limit of extended abstract is one A-4 size page, including figures/ tables/ equations/ references typed in a double column preferably in MS Word. The title of the paper should be bold and in all capital, 12 point font size and in NEW TIMES ROMAN font.

I. INTRODUCTION

Authors should submit the Extended Abstract prior to the deadline. Names of the authors to be in 12 point font size, their addresses and text have to be in 10 point font size and in NEW TIMES ROMAN font. Presenting author name should be underlined. Single inter-line spacing should be used for the text portion. The short abstract is limited to 50 words only. The name of the corresponding author should be marked with superscript (*). Please send the Extended ABSTRACT (doc files only, docx file is not acceptable and PDF file also) by e-mail attachment. The Extended Abstract must be written in English. Text should be left and right justified in the page with 1 inch margin to each edge of the paper. Neither text, nor figures or tables should be printed outside these margins. Extended Abstracts are necessary for competition since they may be used for screening purposes, depending on the number of papers received. Please see judging criteria section on Competition Rules. Extended Abstract should be written following the format of MSWord. All are required to write an extended abstract summarizing the results of his/her research.

All texts should be single spaced, in Times New Roman, 11pt font size consistently. The Extended Abstract begins with a short introduction and ends with a conclusion section. Do not use foot notes. References should be cited uniformly (1).

FULL PAPER SUBMISSION

The Full Paper should be restricted within four pages (A4 size) and the author should follow the instructions as mentioned above.

Last date of submission of full paper: **July 08, 2016 through email.**

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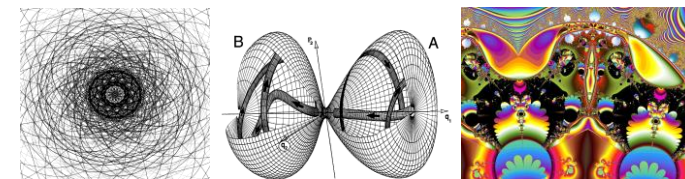
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Dr. Mrinal K Mandal

Deadline

Extended Abstract Submission: June 30, 2016

Abstract Acceptance : July 04, 2016

Registration : July 06, 2016

Full Paper Submission : July 08, 2016

Please send the scanned and completed application form together with the scanned copy of the DD/Cheque to the Course Coordinator on or before July 06, 2016 by e-mail to chaudhuri_hirok@yahoo.co.in

Opportunities for Oral Presentations by the participants and Publication of Article in Extended Abstract Book

Those who are not willing to present their paper they are also invited to attend the short term course.

About NIT Durgapur

National Institute of Technology Durgapur (NIT Durgapur) is an institute of national importance. NIT Durgapur is funded by the Govt. of India for imparting technical education and promoting research in engineering, science, humanities and management. NIT Durgapur was established as a Regional Engineering College (REC) in 1960 as a joint venture of the Government of India and Government of West Bengal. REC Durgapur was converted to NIT Durgapur under the full administrative and financial control of Government of India, Ministry of Human Resource Development with a Deemed University status in 2003. Subsequently, NIT Durgapur has been given the status of a University by the UGC Act. The Institute was declared an Institute of National Importance by the Government of India in 2007. The institute, situated in the midst of the industrial city Durgapur, surrounded by a large number of industries and technical colleges. The city of Durgapur is recognized as one of the fastest developing Tier-II cities in the national scenarios. Durgapur is situated at a distance of 158 km north-west of Kolkata on the Howrah-Delhi main railway route. The NH-2 (The Grand Trunk Road) connects it with various places of the country. 187 acre campus of NIT Durgapur is only 6 km away from the Durgapur Railway Station and 12 km away from Kazi Nazrul Islam Airport, Andal.

The institute offers B. Tech. courses in most of the classical and emerging fields of engineering. NIT Durgapur also offers MBA and MCA courses in addition to M. Tech. courses in different disciplines. Moreover, the institute offers M. Sc. courses in Physics, Chemistry and Mathematics. NIT Durgapur institute offers research facilities leading to Ph.D. degree in different disciplines of science, engineering & humanities. The annual undergraduate intake is about 967 along with a good number of students from abroad. The annual postgraduate intake is about 514 along with 120 Ph. D. students in average per year. The institute has 188 faculty members along with many technical, administrative and supportive staffs. The institute has entered into a student-faculty exchange program with the CERN, Geneva. Moreover the institute has many collaborations with universities, academic institutes and R & D Institutes of India and abroad.

THE DEPARTMENT

Department of Physics of NIT Durgapur is one of the oldest and leading Departments in terms of research activities and sponsored projects. The Department, over the years, has successfully completed a number of MHRD, AICTE, CSIR, DAE and DST funded Research and Development projects as well as a number of sponsored projects. A good number of Ph.D. degrees have been awarded under the supervision of the faculty members of the Department and almost 40 students are working at present for their Ph.D. degrees. Theoretical and experimental investigations are being carried out in the frontier areas such as Nanoscience, Carbon Nanotubes and Graphene, CNT Hybrids and Composites, MD Simulation of Nanomaterials, Nonlinear Optics, Conducting Polymers, Nanocomposites and Thin Films, Magnetic Ferrite Materials, Liquid Crystals, High Energy Physics, Nonlinear Dynamics, Study on Helium and Geothermal Exploration and

Earthquake Precursors etc. The Department currently offers two independent postgraduate programmes: M. Tech. in Advanced Materials Science & Technology and M. Sc. in Physics and also provides useful support in teaching physics to all engineering undergraduate students of this institute.

ABOUT THE SHORT TERM COURSE: NDCA-2016

Nonlinear and chaotic phenomena are very common in different dynamical systems related to many disciplines such as astrophysical, biological, physiological, atmospheric, oceanography, deep earth systems, environmental, fluid dynamics, mechanical, electrical, electronics and financial and many more. Time series data sets recorded for different physico-chemical entities of any complex system are processed through various nonlinear techniques such as Fast Fourier Transform, Principal Component Analysis, Multi-fractal Analysis, Wavelet Transform, empirical mode decomposition techniques etc. These approaches undoubtedly assist to extract the hidden information that reside within the time series data. The techniques of nonlinear dynamical systems provide important tools to model and study many complex phenomena in almost every disciplines of science and engineering. In the field of security and secure communication chaotic systems have tremendous applications. This field has now emerged as one of the major interdisciplinary subject. The course will provide adequate background in continuous dynamical systems, chaos and time series analysis. The lectures are supplemented with a number of problem solving sessions and take-home assignments to enable enhanced learning. Moreover, there will be computation laboratory sessions related with application of Fast Fourier Transform, Multi-fractal Analysis in earth system data.

One of the important objectives of this short term course is to bring Researchers and Technocrats and students from different discipline to a common platform to share and disseminate the fundamental knowledge and information about the recent developments Nonlinear Dynamics and its Applications. Besides the invited talks by the resource persons, there will be oral presentations by the participants covering the theme of the course. Best paper award will be given in this course.

TOPICS TO BE COVERED

- Fundamentals of Nonlinear Dynamics and Chaos
- Theoretical aspect and case study: application of nonlinear dynamics and chaos in - Electronics, Geo Sciences, Plasma Physics, Econo-Physics, Complex dynamics, Mathematical Modelling & Biological system.
- Interactive Laboratory with assignment: programming etc.

WHO CAN ATTEND?

Faculty Members, Scientists and Engineers, Research Scholars, PG /UG Student, Technicians, Technical Staff Members, Those who

working in the field of Nonlinear dynamics and Chaos or wish to start research work in the area of complex dynamics.

RESOURCE PERSONS

- Prof. A.N. Sekar Iyengar, Plasma Physics Division, Saha Institute of Nuclear Physics, Kolkata
- Prof. Prasanta K. Panigrahi, Dept. of Physical Sciences, IISER Kolkata, Kalyani
- Dr. Syamal Kumar Dana, Indian Institute of Chemical Biology, Kolkata
- Dr. Paresh Nath Singha Roy, Department of Applied Geophysics, Indian School of Mines, Dhanbad
- Dr. Md. Nurujjaman, Dept. of Physics, NIT Sikkim
- Dr. Tanmoy Banerjee, Dept. of Physics, University of Burdwan, Burdwan
- Dr. Pinaki Pal, Dept. of Mathematics, NIT Durgapur
- Dr. Mrinal K. Mandal, Dept. of Physics, NIT Durgapur
- Dr. Hirok Chaudhuri, Dept. of Physics, NIT Durgapur

BOARDING & LODGING

Boarding, lodging and travel expenses shall be borne by the participants. Limited shared accommodations are available in the Institute Guest House of NIT Durgapur on first come first served basis. Several good hotels are available around NIT Durgapur. Participants may contact directly or through the coordinator(s) for accommodation in Hotels. No TA/DA will be paid to the participants by NIT Durgapur.

REGISTRATION FEES

Faculty / Staff Member of Academic Institutes: INR 2,500
Scientists / Engineers / Staff Members
of Research Institutes / Industries : INR 5,000
Research Scholars/ PG or UG Students : INR 1,500
PG or UG Students of NIT Durgapur : INR 1,000

Registration fee includes study/lecture materials, refreshment and lunch for 5 days during the course.