

ORGANIZING COMMITTEE

Convener: Professor U. C. Mohanty, FASc, FNA, FNASc, FNAE Visiting Professor IIT, Bhubaneswar

Coordinator: Professor T. C. Panda, FRAS Visiting Faculty, Ravenshaw University, Cuttack

PARTICIPATION

Young faculty (below the age of 40 years), M. Phil. & Ph. D. Scholars, Students of B. Sc. (final year Hons) and M. Sc. / M.Tech. in the disciplines of Mathematics, Physics, Chemistry, Statistics, Computer Science, Atmospheric & Oceanic Sciences; and having interest in Real-World Problems are eligible to participate in the Workshop. The Scanned filled-in Application Format forwarded by their respective Head/Principal be sent through e-mail latest by **17th February 2019**. Selected candidates shall be intimated through e-mail by **19th February 2019** and are to come with the Identity Card of their Institutions.

VENUE

Seven Pillars of Wisdom (Annex-I)
Ravenshaw University, Cuttack

ADDRESS FOR COMMUNICATION

• Professor T. C. Panda
Coordinator of the Workshop
Department of Mathematics
Ravenshaw University, Cuttack-753003
e-mail: tc_panda@yahoo.com
dwti78@gmail.com

Mobile: 9437261364, 9439065825

ORGANIZING INSTITUTE

Ravenshaw University came into existence on 15th November 2006 and is an upgradation of Ravenshaw College established in 1868, one of the oldest and reputed Govt. Colleges in India. It has stood the test of time with rich heritage and culture. The department of Mathematics strives for achieving world class excellence in teaching, research and knowledge transfer with valuable contributions for overall development of the region and country. The department with a vision and a single minded mission tries to earn a name to reckon with.

SCIENTIFIC IMPORTANCE

The state of Odisha is rich in natural resources like forests, rivers and sea. About 70% of its people depend on agriculture and which in turn depends on timely rain. Monsoon rainfall over Odisha is crucial for its agricultural productivity. The scientific activities in the state against natural calamities are not adequate for understanding and prediction and therefore, its people suffer from cyclones, floods and droughts.

The Odisha coast has the highest vulnerability to cyclones and depressions originating in the Bay of Bengal experiences severe adverse weather during the period May-November each year. The coast is also prone to high storms surges (ranging from 2 to 8 meters) associated with cyclonic storms which are responsible for about 90% of deaths caused by the storms besides destroying a large number of houses and other coastal installations. As the cyclones and depressions create extreme adverse weather, it is necessary to make risk and vulnerability analysis of the natural disasters, and resort to mathematical modeling to understand the dynamics of these weather systems.

Application of the laws of physics and numerical techniques of mathematics and analysis of atmospheric and oceanic observations provide an insight into the physical processes involved.

TOPICS TO BE COVERED

A time-bound real-world problems in the most emerging thrust areas of Science and Technology has been designed for presentation before the participants in a tangible, palatable and lucid form for stimulating cross-disciplinary discussions on:

- Fundamentals of Weather & Climate and their Modeling (FWCM)
- Extreme Weather and Climate Systems (EWCS)
- Tropical Cyclones and Associated Storm Surges (TCASS)
- Monsoonal Heavy Rainfall, Thunderstorm & Lightning (MHRTL)
- Global Warming and Frequency & Intensity of Extreme Events (GWFIEE)
- Heat and Cold Waves (HCW)

RESOURCE PERSONS (TENTATIVE)

- Professor U. C. Mohanty, IIT, Bhubaneswar
- Professor P. C. Pandey, IIT, Kharagpur
- Professor D. V. Bhaskar Rao, Andhra University, Visakhapatnam
- Professor K. P. R. Vittal Murthy, Andhra University, Visakhapatnam
- Dr. S. C. Sahoo, SoA University, Bhubaneswar
- Dr. N. D. Mohanty, OSAC, Bhubaneswar
- Dr. Sujata Pattanayak, NCMRWF, Noida
- Professor T. C. Panda, Ravenshaw University, Cuttack

SPONSOR

- Indian Academy of Sciences, Bengaluru
- Indian National Science Academy, New Delhi
- The National Academy of Sciences, India Allahabad



SCIENCE ACADEMIES' EDUCATION PROGRAMME

LECTURE WORKSHOP
ON
MATHEMATICAL MODELING OF
EXTREME WEATHER EVENTS OVER INDIA
FEBRUARY 22-24, 2019



ORGANISED BY
DEPARTMENT OF MATHEMATICS
RAVENSHAW UNIVERSITY
CUTTACK-753003
ODISHA



LECTURE WORKSHOP
ON
MATHEMATICAL MODELING OF EXTREME WEATHER EVENTS OVER INDIA
FEBRUARY 22-24, 2019

APPLICATION FORM

1. Name of the Applicant:
2. Date of Birth:
3. Name of the College/Institution:
4. Present Academic Status:
5. Discipline:
6. Gender(M/F):
7. Address:
8. E-mail:
9. Mobile No.:

Signature of the Applicant

Forwarding Authority
(Head/ Principal with Seal)