

NATIONAL WORKSHOP ON SCALE - FREE NETWORKS (NWSN)

FEBRUARY 12-15, 2015

Organized by

Department of Mathematics

Cochin University of Science and
Technology, Kochi

IN COLLABORATION WITH



Department of Computational Biology and
Bio Informatics

University of Kerala, Thiruvananthapuram.

VENUE

Department of Mathematics

Cochin University of Science and
Technology, Kochi



Department of Mathematics, CUSAT

The erstwhile university of Cochin founded in 1971 was re organized as Cochin University of Science and Technology (CUSAT) in 1986 for the promotion of graduate and post graduate studies and advanced research in Applied Sciences, Technology, Commerce, Management and Social sciences.

The combined Department of Mathematics and Statistics came in to existence in November 1976, which was bifurcated to form an independent Department of Mathematics in 1996. Apart from offering M.Sc & M.Phil.degree courses in Mathematics, it has active research programmes in Graph Theory, Algebra, Fuzzy Mathematics, Wavelet Analysis and Operator Theory .It has been coordinating the Mathematical Olympiads and related training programmes for school children with the assistance of NBHM since 1990 and also coordinates the national level tests of NBHM for M.Sc. and Ph.D. scholarships. The department has been receiving a library grant from NBHM since 1991 and also sponsored under DST-FIST Scheme.

Department of Computational Biology and Bioinformatics

The Centre for Bioinformatics was established by the University of Kerala in 2005 and upgraded as the Department of Computational Biology and Bioinformatics in 2011. It is a new generation inter-disciplinary as well as multidisciplinary teaching & research Department of University of Kerala, India. Research is the top priority activity of the Department and the PhD programme of the Department focuses on both computational and life science projects. The Department has its

own premises with state of the art informatics laboratory and also a molecular biology and bio-electronics laboratory and digital library with in-house made software-book face. The department has made modest but steady progress in research, scholarly publishing and contribution to international bio-databases including GenBank and PDB.

The Department is supported by a variety of funding from Information Technology Department of Govt. of Kerala; Higher Education Dept, Govt. of Kerala; Dept. of IT, Govt. of India; Dept. of Biotechnology, Govt. of India. The status of State Inter-university Centre of Excellence in Bioinformatics was conferred by the Government of Kerala.

SCOPE OF THE WORKSHOP

A scale-free network is a network whose degree distribution follows a Power law, at least asymptotically and such networks have been used to explain the behavior as diverse as those of power grids, the stock market and cancerous cells. Numerous challenging problems in this area have attracted the attention of researchers from Physics, Computer science, Engineering, Biology, Social science, and Mathematics. Many networks are conjectured to be scale-free, including World Wide Web links, biological networks, and social networks. Study of such complex networks through different angles have



turned out to be highly inter disciplinary. This workshop aims to bring together the eminent personalities from this recently emerging topic and the young researchers interested to work in this direction.

WORKSHOP CONTENTS

Spectral Graph theory, Fractals, Power Law, RandomGraph, Diffusion, Community Detection, Applications in Physics and Social Media etc.

ELIGIBILITY: The workshop is open to PG students, researchers, teachers and other professionals in Mathematics/ Physics/ Statistics/ Computer Science/ Engineering/ Computational Biology, who have research interests in scale free networks.

REGISTRATION*:

Registration fee	
With accommodation (Double occupancy)**	Rs 2500
Without accommodation	Rs 1500

*Only selected candidates need send the Registration Fee.

**Accommodation will be arranged in a private hostel near the CUSAT campus.

IMPORTANT DATES:

Last date for registration: 25th December, 2014.

Announcement of the list of selected participants: 1st January 2015.

Last date for the payment of registration fee: 10th January 2015.

RESOURCE PERSONS

- Achuthsankar.S.Nair
Computational Biology & Bioinformatics, University of Kerala, Thiruvananthapuram.
- Ambat Vijayakumar, Mathematics, CUSAT
- Balaraman Ravindran, Computer Science & Engineering, IITM, Chennai.
- Neelima.M. Gupte, Physics, IITM, Chennai
- Ramasuri Narayanam, IBM Research India, Bangalore.
- Sitabhra Sinha, Physics group, IMSc., Chennai.
- Umesh P
Computational Biology & Bioinformatics, University of Kerala, Thiruvananthapuram.
- Vinodkumar P.B , Mathematics, RSET, Cochin.

ORGANIZING COMMITTEE:

Patron: Dr. J. Letha,
Vice Chancellor, CUSAT.

Chairman: Prof. P.G Romeo, Head,
Department of Mathematics,
CUSAT.

Members:

Dr. Achuthsankar .S. Nair, University of Kerala.
Dr. B. Lakshmi, CUSAT.
Ms. K.Meena, CUSAT.
Mr. Shyam Sunder Iyer, CUSAT.
Research scholars & M.Phil students,
Dept of Mathematics, CUSAT.

Convener:

Prof. A. Vijayakumar , CUSAT

Joint Conveners:

Dr. Umesh P(toumesh@gmail.com)
Ms. Savitha K.S, CUSAT

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REGISTRATION FORM:

1. Name :
2. Designation :
3. Official Address:
4. E-mail:
5. Contact No:
5. Educational Qualifications:
6. Research/Teaching experience in detail :
7. Accommodation required: Yes/No
8. Reasons for attending this workshop:

Place:

Date:

Signature

The participants should send the registration form to savithaks2009@gmail.com and the signed hardcopy to:

Ms.Savitha K.S
Research Scholar
Department of Mathematics
CUSAT, Cochin-682 022.