

Interdisciplinary Conference on the Science and Applications of Networks



Shiv Nadar University's Center for Informatics organized a three-day Interdisciplinary Conference on the Science and Applications of Networks from March 20-22, 2015. The Conference Chairperson Dr. Rupamanjari Ghosh, Director, School of Natural Sciences and Dean, Research and Graduate Studies inaugurated the conference. The three day conference brought together researchers from the diverse areas of Graph Theory, Structural Biology, Genomics, Bioinformatics and Systems Biology, Physics, Chemistry, Ecology and Forestry, as well as Anthropology, Archaeology and Social Sciences, from across the country.

The keynote address at the Technical Sessions was delivered by Dr. Somdatta Sinha IISER Mohali. Dr. Sinha also chaired the first session on Biological and Chemical Networks on the first day. The opening session saw Dr. Sonika Bhatnagar from Netaji Subhash Institute of Technology, New Delhi, who spoke on Network Based Insights into Biological Systems. This was followed by an intellectual tour of Chemical Space Networks by Dr. N. Sukumar from Shiv Nadar University (SNU). Dr. Shree Prakash Pandey from IISER Kolkata concluded the session with his talk on Plant Stress Adaptation, Signaling and the Regulatory Small RNA Pathways: Evolution and Functional Specialization.

The other sessions related to the Biological and Chemical Networks witnessed eminent personalities from various participating institutes present their thoughts and work on varied

aspects within the Biological and Chemical Network space. One of the most engrossing sessions of the day was delivered by Dr. Ganesh Bagler from IIT Jodhpur with a session on Deciphering Network Structures in Search of the Molecular Essence of Indian Cuisine. The post lunch session included a talk on Examining the Emergence of Large-scale Structures in Social Networks by Dr. Jaideep Ghosh of SNU, and contributed oral presentations from various research scholars from CCMB Hyderabad, IISER Mohali, IIT Jodhpur and IISER Kolkata.

The first day of the conference was closed with a cultural extravaganza presented by the students of SNU, followed by a networking dinner.

The second day of the Conference commenced with a talk by Dr. N. Latha from Sri Venkateswara College, New Delhi, on Molecular Network and Dynamics of Human Dopamine Receptors. Dr. Latha was also the chair for the session on Ecological Networks and Network Dynamics. Dr. Ashutosh Singh from SNU spoke on miRNA-miRNA Synergistic Network in Colorectal Cancer. The session on Ecological Networks and Network Dynamics saw interesting presentations by Dr. Awadesh Prasad on The Effect of Time-Delay in Coupled Systems followed by the session on A Network Approach for Modeling Tiger Corridor in the Central India-Eastern Ghats Landscape Complex by Dr. Sudepto Bhattacharya.

The post lunch session on the second day included contributed oral presentations of research scholars from Indian Institute Remote Sensing, Dehradun, Delhi University and SNU. The highlight of the afternoon was the Panel Discussion moderated by Dr. N. Sukumar which addressed questions such as the current status and future opportunities for network science in India, the complementary dynamical information provided by a network of systems, and hitherto unexplored mathematical measures of networks and graphs.

The second day of the conference concluded with a Poster session with presentations by research scholars from participating institutions and a Workshop on Network Visualization conducted by Dr. A. Satyanarayana Reddy and Mr. Ganesh Prabhu, both from SNU.

The third day of the conference began with a presentation by Dr. Sitabhra Sinha from Institute of Mathematical Sciences, Chennai on Complexity of Social and Economic Networks: The Importance of Community Organization. The session was chaired by Dr. Ganesh Bagler. The second session was chaired by Dr. Sitabhra Sinha and Dr. Arijit Roy from Indian Institute of Remote Sensing, Dehradun delivered his talk on Remote Sensing and GIS Inputs in Network Analysis of Landscape Elements. The final talk was delivered by Dr. Pawan Dhar, JNU on Finding New Laws in Biology.

Dr. N. Sukumar delivered the Vote of Thanks at the Valedictory function. Prizes were distributed to the winners of poster presentations followed by a networking lunch.