

## WoSC 2012 PROGRAM SCHEDULE

DAY 1: October 5, 2012 at the Gargi Auditorium, Vikramshila Complex

**8:30 AM – 8:40 AM:** Inauguration by Prof. Partha Pratim Chakrabarti (Dean, Sponsored Research and Industrial Consultancy (SRIC), IIT Kharagpur)

**8:40 AM – 9:00 AM:** Opening Speech by the organizers (Niloy Ganguly and Krishna Gummadi)

**9:00 AM – 10:30 AM: Talk Session 1:** Social Web and Social Media (**Session Chair:** Pabitra Mitra)

- A Communication Network Perspective of Social Networks (Onkar Dabeer)
- Relational Non-parametric models for Analyzing Influences on Users in Social Media (Indrajit Bhattacharya)
- Privacy and Security in Online Social Media (PSOSM) (Ponnurangam Kumaraguru)
- Enabling the Social Web (Krishna Gummadi)
- Markov Logic Networks: Exploring their Application to Social Network Analysis (Parag Singla)

**10:30 AM – 11:00 PM:** Tea Break

**11:00 AM – 12:30 PM: Talk Session 2:** Business and the Crowd (**Session Chair:** Srikanta Bedathur)

- Computing Brand Reputation in Social Media (Vasudeva Varma)
- Click-Fraud in Advertising and its Impact on Online Social Networks (Saikat Guha)
- Utilizing Social Annotations for Topical Search in Twitter Online Social Network (Saptarshi Ghosh)
- Crowdsourcing for Business: An Emerging Paradigm (Shourya Roy)
- A Causal Analytics Framework to integrate Social Media Content and Business Data (Lipika Dey)
- SNAzzy: Social Network Analysis for Telecom Business Intelligence (Amit Nanavati)

**12:30 PM – 2:00 PM:** Lunch at the Technology Guest House (New Dining Room)

**2:00 PM – 3:30 PM: Talk Session 3:** Linguistic and Cognitive Aspects (**Session Char:** Lipika Dey)

- Opinion Formation through Language Games (Animesh Mukherjee)
- Taking a Deeper Look at the 'Social' in Social Network/Computing (Biswatosh Saha)
- Cognitive Models for Social Media Analytics (Srinath Srinivasa)
- Social Computing for Linguistics and Linguistics for Social Computing (Monojit Choudhury)
- Inferring from the Crowd (L V Subramaniam)

**3:30 PM – 4:00 PM:** Tea break

**4:00 PM – 5:30 PM: Talk Session 4:** Network Algorithms and Network Structure (**Session Chair:** Onkar Dabeer)

- Ranking in Graph Data Models (Soumen Chakraborti)
- Scalable "Network" Processing in Social Networks (Srikanta Bedathur)
- Understanding Structure and Function in Networks (Balaraman Ravindran)
- Finding Bias and Prestige of Nodes in Networks based on Trust Scores (Arnab Bhattacharya)
- Dynamics of Community Formation (Niloy Ganguly)

**5:30 PM – 5:45 PM:** Sum up the day's talks

**5:45 PM – 6:00 PM:** Break

**6:00 PM – 7:00 PM:** Open Discussion on "What can we do as a community to promote social computing research and teaching in India?" (**Moderator:** Monojit Choudhury)

**7:00 PM – 8:30 PM:** Break

**8:30 PM – 10:00 PM:** Workshop Banquet Dinner at the Technology Guest House (Old Dining Room)

### **DAY 2: October 6, 2012**

**8:30 AM – 10:00 AM:** Birds of a Feather (BoF) Session at the Gargi Auditorium, Vikramshila Complex and the G. S. Sanyal School of Telecommunications, Takshila Complex

We are suggesting this BoF session to self-organize participants around small topics. This will help in having intense discussion among small groups and in the process find potential collaborators. We are proposing four topics but we invite participants to suggest more which he/she would like to champion.

#### **Current Topics (Elaborated below)**

- Network Science and Social Networks (**Champion:** Niloy Ganguly)
- Learning in networks (**Champion:** Balaraman Ravindran)
- Social Computing in Indian Context (**Champion:** Monojit Choudhury)
- Identity, Anonymity, Privacy, Trust and Reputation in Online Social Networks (**Champion:** Krishna Gummadi)

**10:00 AM – 10:30 AM:** Reporting of Birds of a Feather back at the Gargi Auditorium, Vikramshila Complex

**10:30 AM – 11:00 AM:** Tea Break

**11:00 AM – 1:00 PM:** Panel Discussion on "Towards Community Efforts to Improve National Publishing Record: Roadblocks and Solutions" (**Moderator:** Balaraman Ravindran, **Panelists:** Vasudeva Varma, Saikat Guha, Soumen Chakraborti, Animesh Mukherjee, Amit Nanavati)

**Sub-topics for discussion**

- **Roadblocks:** Funding, student scarcity and other non-academic workload
- **Solutions:** Popular science campaign to attract students, providing Ph.D. Students more industry exposure, building up international and national collaborations, getting connected with user groups for data and problem identification

**1:00 PM – 2:00 PM:** Lunch at the Vikramshila Foyer

**2:00 PM – 4:00 PM:** Open Discussion on "Creating a Society for Social Computing in India" (**Moderator:** Niloy Ganguly)

**Sub-topics for discussion**

- Can we organize an annual conference on OSN?
- What can be the nature of the conference?
- How is OSN research similar to and different from KDD?
- Should the society align its activities with other research communities like iKDD and COMSNETS?
- How to develop better ties and collaborations between industry and academia? Data sharing, Student internships, Faculty visits and Industry expert talks at universities
- Can we have more grants for activities like increasing computing power, conference travel and faculty research?

**4:00 PM – 4:15 PM:** Closing Remarks

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**Current Topics for BoF Session**

**Network Science and Social Networks (Champion: Niloy Ganguly)**

In the last decade a series of mathematical techniques have been formalized to analyze large dynamic graphs. Some of the techniques are rate equations (employed to understand growth of such graphs), percolation theory (employed to understand resilience of such graphs), centrality measurement of each individual nodes to understand the flow of information over such graphs

etc. Social networks typically fall under the purview of large graphs, hence the network science techniques can be used to understand several properties of the network. Side by side the richness of human interaction can also help enrich and develop the existing mathematical techniques. In this forum we would like to have short discussions about its potential and exchange our experiences in using such techniques.

### **Learning in networks (Champion: Balaraman Ravindran)**

Networked data has spawned many sub-areas of machine learning, starting from collective learning to applications of Bayesian networks and statistical relational learning (SRL). There are various application domains, like structured output prediction, sequence learning, etc. which also benefit from a network treatment. While there are many interesting questions to answer this setting itself, the question of how to scale these learning algorithms to large networks (telecom, web, etc.) has not been explored much. This group can talk about collective learning/inference applications in large networks, as well as tools and techniques of promise in this direction.

### **Social Computing in Indian Context (Champion: Monojit Choudhury)**

Being one of the most economically and socio-culturally heterogeneous nation and fastest growing democracy in the world, India and her problems have always been a fascinating area of research amongst social scientists. Nevertheless, there is no strong tradition of statistical, let alone computational, analysis in social science research in India. On the other hand, advent of mobile and information technology, which has percolated well through the layers of Indian socio-economic strata, has led to several new phenomena unique to India, which provide excellent opportunities for research in social computing. To mention just but a few diverse set of examples: innovative use of mobile phones in small and medium size businesses & microfinance, use of online social networks by semi-literate slum kids to connect to their South American counterparts, linguistic change driven by computer mediated communication (especially, code mixing and spelling change) and crowdsourcing as a source of economic subsistence. Add to it the intriguing “totally Indian” phenomena such as self-organization of Indian traffic, dynamics of Bollywood or extreme multi-linguality of our cities – very little computational studies, if any, has been conducted in these areas. Being in India, it is a great opportunity (and perhaps, also a responsibility) for us to identify and study such problems unique to India. Under this theme, we will discuss and enumerate (a) the broad social-computing research questions in the context of India, (b) identify what features make them unique, if any, (c) what might be the hurdles at research (e.g., data, political sensitivity, less opportunities for publication in top-tier conferences, etc.) and organizational (too few researchers, no culture of inter-disciplinary research etc.) levels, and (d) what is the way forward.

### **Identity, Anonymity, Privacy, Trust and Reputation in Online Social Networks (Champion: Krishna Gummadi)**

In this session, we propose to discuss and explore the fundamental notion of identity and its closely associated notions of anonymity, privacy, trust, and reputation in online social networking sites today. The current lack of clarity about these notions has led to system designs where people do not know who to trust or why a certain information is being recommended to them, and feel that their privacy is under constant threat.