

ANIMESH MUKHERJEE

CURRENT POSITIONS

02/2016–present: Associate Professor, Dept. of Comp. Sc. and Engg., IIT Kharagpur.
08/2011–02/2016: Assistant Professor, Dept. of Comp. Sc. and Engg., IIT Kharagpur.
01/2014–12/2019: Simons Associate, ICTP, Trieste, Italy.

EDUCATIONAL QUALIFICATIONS

BTech; Haldia Institute of Technology, Haldia, West Bengal, India; % Marks: 89; Ranked: 1st.
Mtech; Indian Institute of Technology, Kharagpur, West Bengal, India; CGPA: 9.43; Ranked: 4th.
PhD; Indian Institute of Technology, Kharagpur, West Bengal, India.

ACADEMIC ACHIEVEMENTS

07/17: *Humboldt Fellowship for Experienced Researchers*.
03/17: *Gandhian Young Technological Innovation (GYTI) Award*.
03/16: *CSCW Honorable Mention Award*.
09/15: *IBM Faculty Award* from IBM.
04/14: *Young Scientist Award* from Indian National Science Academy (INSA).
09/13: *DAAD IIT Faculty Exchange*.
08/13: *Simons Associate*, ICTP, Trieste, Italy.
07/13: *NSF/TCPP CDER Center Early Adopter Award for Fall-13*, NSF, USA (2013).
06/12: *Young Engineer Award* from Indian National Academy of Engineering (INAE).
01/06: *Young Scientist Award* from Indian Science Congress Association (ISCA).

TEN MOST SIGNIFICANT PUBLICATIONS

1. Chakraborty, T., Srinivasan, S., Ganguly, N., **Mukherjee, A.** and Bhowmick, S. (2016). Permanence and Community Structure in Complex Networks. *ACM TKDD*, **11**(2): 14:1–14:34. *ACM's 21st Annual Best of Computing*.
2. Chakraborty, T., Kumar, S., Goyal, P., Ganguly, N. and **Mukherjee, A.** (2015). On the categorization of scientific citation profiles in computer sciences. *Communications of the ACM*, **58**(9), 82–90.
3. Chakraborty, T., Srinivasan, S., Ganguly, N., Bhowmick, S. and **Mukherjee, A.** (2013). Constant communities in complex networks. *Nature Scientific Reports*, **3**, 1825.
4. Ghosh, S., Saha, S., Srivastava, A., Kuerger, T., Ganguly, N. and **Mukherjee, A.** (2013). Understanding Evolution of Inter-Group Relationships using Bipartite Networks. *IEEE JSAC*, special issue on *Emerging Technologies in Communications* **31**(8), 1–11.
5. Loreto, V., **Mukherjee, A.** and Tria, F. (2012). On the origin of the hierarchy of color names. *Proceedings of the National Academy of Sciences (PNAS)*, **109**(18), 6819–6824.
6. Choudhury, M., Ganguly, N., Maiti, A., **Mukherjee, A.**, Bruschi, L., Deutsch, A. and Peruani, F. (2010). Modeling Discrete Combinatorial Systems as Alphabetic Bipartite Networks: Theory and Applications. *Phys. Rev. E* **81**, 036103.
7. Maity, S. K., Saraf, R. and **Mukherjee, A.** (2016). #Bieber + #Blast = #BieberBlast: Early prediction of popular hashtag compounds. In *CSCW (16)*, San Francisco, CA.
8. Chakraborty, T., Patranabis, S., Goyal, P. and **Mukherjee, A.** (2015). On the formation of circles in co-authorship networks. In *KDD(15)*, Sydney, Australia.
9. Chakraborty, T., Srinivasan, S., Ganguly, N., **Mukherjee, A.** and Bhowmick, S. (2014). On the permanence of vertices in network communities. In *KDD(14)*, New York, USA.
10. Mitra, S., Mitra, R., Riedl, M., Biemann, C., **Mukherjee, A.** and Goyal, P. (2014). That's sick dude!: Automatic identification of word sense change across different timescales. In *ACL(14)*, Baltimore, USA.

SUMMARY OF RESEARCH OUTPUT

High Impact Journals¹

1. Chakraborty, T., Dalmia, A., Mukherjee, A. and Ganguly, N. (20XX). Metrics for community analysis: A survey. *ACM Computing Surveys*, (in press).
2. Bodych, M., Ganguly, N., Krueger, T., Mukherjee, A., Siegmund-Schultze, R. and Sikdar S. (2017). Threshold-based epidemic dynamics in systems with memory. *Europhysics*

¹See <http://cse.iitkgp.ac.in/~animeshm> for the full list of publications

- Letters*, **116**(4), 48004(1–5).
3. Sur, S., Ganguly, N. and Mukherjee, A. (2016). Brokerage based attack on real world temporal networks. *Journal of Network Science*, **4**(4), 446–459.
 4. Chakraborty, T., Srinivasan, S., Ganguly, N., Mukherjee, A. and Bhowmick, S. (2016). Permanence and Community Structure in Complex Networks. *ACM TKDD*, **11**(2): 14:1–14:34.
 5. Singh, M., Chakraborty, T., Mukherjee, A. and Goyal, P. (2016). Is this conference a top-tier? ConfAssist: An assistive conflict resolution framework for conference categorization. *Journal of Informetrics*, **10**(4), 1005–1022.
 6. Chakraborty, T., Kumar, S., Ganguly, N., Mukherjee, A. and Bhowmick, S. (2016). GenPerm: A Unified Method for Detecting Non-overlapping and Overlapping Communities. *IEEE TKDE*, **28**(8): 2101–2114.
 7. Sikdar, S., Ganguly, N., Mukherjee, A. (2016) Time series analysis of temporal networks. *EPJB Topical Issue on Temporal Network Theory and Applications*, **89**(1), 1–11.
 8. Mitra, S., Mitra, R., Maity, S. K., Riedl, M., Biemann, C., Goyal, P. and Mukherjee, A. (2015). An automatic approach to identify word sense changes in text media across timescales. *JNLE*, special issue on *Graphs for NLP*, **21**(5), 773 – 798.
 9. Chakraborty, T., Kumar, S., Goyal, P., Ganguly, N. and Mukherjee, A. (2015). On the categorization of scientific citation profiles in computer sciences. *Communications of the ACM*, **58**(9), 82–90.
 10. Chakraborty, T., Tammana, V., Ganguly, N. and Mukherjee, A. (2015). Understanding and Modeling Diverse Scientific Careers of Researchers. *Journal of Informetrics*, **9**(1), 69–78.
 11. Ganguly, N., Krueger, T., Mukherjee, A. and Saha, S. (2014). Epidemic spreading through direct and indirect interactions. *Phys. Rev. E*, **90**, 032808.
 12. Saha, S., Ganguly, N., Mukherjee, A. and Krueger, T. (2014). Intergroup networks as random threshold graphs. *Phys. Rev. E*, **89**, 042812.
 13. Bhattacharjee, B., Manna, S. S. and Mukherjee, A. (2013). Information sharing and sorting in a community. *Phys. Rev. E*, **87**, 062808.
 14. Chakraborty, T., Srinivasan, S., Ganguly, N., Bhowmick, S. and Mukherjee, A. (2013). Constant communities in complex networks. *Nature Scientific Reports*, **3**, 1825.
 15. Maity, S. K., Mukherjee, A., Tria, F. and Loreto, V. (2013). Emergence of fast agreement in an overhearing population: The case of the naming game. *Euro. Phys. Lett*, **101**, 68004.
 16. Ghosh, S., Saha, S., Srivastava, A., Kuerger, T., Ganguly, N. and Mukherjee, A. (2013). Understanding Evolution of Inter-Group Relationships using Bipartite Networks. *IEEE JSAC*, special issue on *Emerging Technologies in Communications* **31**(8), 1–11.
 17. Maity, S. K., Venkat, M. T. and Mukherjee, A. (2012). Opinion formation in time-varying social networks: The case of the naming game. *Phys. Rev. E*, **86**, 036110.
 18. Loreto, V., Mukherjee, A. and Tria, F. (2012). On the origin of the hierarchy of color names. *Proceedings of the National Academy of Sciences (PNAS)*, **109**(18), 6819–6824. **Media Coverage:** PNAS Press Highlights, Scientific American, Live Science, MedicalXpress, The Hindu, Business Line, Times of News, BBC Future, Prospect Magazine (UK), Yahoo! News, Deccan Herald, MSN, Homunculus, Doctordisruption, Galileo Net, Scienza e Tecnica, Chinese EurekAlert, De Standaard, Design by Coffee, Blitz quotidiano, Wired (Italian). Wikipedia entry: Color term.
 19. Mukherjee, A., Tria, F., Baronchelli, A., Puglisi, A. and Loreto, V. (2011). Aging in language dynamics. *PLoS ONE*, **6**(2): e16677.
 20. Choudhury, M., Ganguly, N., Maiti, A., Mukherjee, A., Bruschi, L., Deutsch, A. and Peruani, F. (2010). Modeling Discrete Combinatorial Systems as Alphabetic Bipartite Networks: Theory and Applications. *Phys. Rev. E* **81**, 036103.
 21. Choudhury, M., Saraf, R., Jain, V., Mukherjee, A., Sarkar, S. and Basu, A. (2007). Investigation and Modeling of the Structure of Texting Language. *IJDAR* special issue on *Noisy Text Analytics*, Springer, **10**(3-4), 157–174.

Tier-I Conferences

1. Patro, J., Samanta, B., Singh, S., Basu, A., Mukherjee, P., Choudhury, M., Mukherjee, A. (2017). All that is English may be Hindi: Enhancing language identification through automatic ranking of the likeliness of word borrowing in social media. In *EMNLP (17)*, Copenhagen, Denmark.
2. Singh, M., Sarkar, R., Goyal, P., Mukherjee, A. and Chakraborty, S. (2017). Relay-Linking Models for Prominence and Obsolescence in Evolving Networks. In *ACM SIGKDD (17)*, Halifax, Canada.
3. Maity, S. K., Panigrahi, A., and Mukherjee, A. (2017). Book Reading Behavior on Goodreads Can Predict the Amazon Best Sellers. In *ACM/IEEE ASONAM (17)*, (short paper), Sydney, Australia.
4. Sikdar, S., Marsili, M., Ganguly, N., Mukherjee, A. (2017) Influence of Reviewer Interaction Network on Long-term Citations: A Case Study of the Scientific Peer-Review System of the Journal of High Energy Physics. In *ACM/IEEE JCDL (17)*, Toronto, Canada.
5. Jana, A., Mooriyath, S., Mukherjee, A., and Goyal, P. (2017) WikiM: Metapaths based Wikification of Scientific Abstracts. In *ACM/IEEE JCDL (17)*, Toronto, Canada.
6. Singh, M., Niranjan A., Gupta, D., Bakshi, N. A., Mukherjee, A., and Goyal, P. (2017) Citation sentence reuse behavior of scientists: A case study on massive bibliographic text

- dataset of computer science. In ACM/IEEE JCDL (17), Toronto, Canada (short paper).
7. Singh, M., Jaiswal, A., Priya Shree, Pal, A., **Mukherjee, A.**, and Goyal, P. (2017) Understanding the Impact of Early Citers on Long-Term Scientific Impact. In ACM/IEEE JCDL (17), Toronto, Canada.
 8. Maity, S. K., Kharb, A. and **Mukherjee, A.** (2017). Language Use Matters: Analysis of the Linguistic Structure of Question Texts can Characterize Answerability in Quora. In *ICWSM (17)*, (poster) Montreal, Canada. (to appear).
 9. Singh, M., Barua, B., Palod, P., Garg, M., Satapathy, S., Bushi, S., Ayush, K., Rohith, K. S., Gamidi, T., Goyal, P. and **Mukherjee, A.** (2016) OCR++: A Robust Framework For Information Extraction from Scholarly Articles. In *COLING (16)*, Osaka, Japan.
 10. Ufimtsev, V., Sarkar, S., **Mukherjee, A.** and Bhowmick, S. (2016). Understanding Stability of Noisy Networks through Centrality Measures and Local Connections, In *CIKM (16)*, (extended short paper), Indianapolis, IN.
 11. Sikdar, S., Marsili, M, Ganguly, N. and **Mukherjee, A.** (2016). Anomalies in the peer-review system: A case study of the journal of High Energy Physics, In *CIKM (16)*, (extended short paper), Indianapolis, IN.
 12. Maity, S. K., Saraf, R. and **Mukherjee, A.** (2016). #Bieber + #Blast = #BieberBlast: Early prediction of popular hashtag compounds. In *CSCW (16)*, San Francisco, CA. **This paper (i) featured as MIT Tech Review best of the rest of arXiv; (ii) received an honorable mention award.**
 13. Singh, M., Patidar, V., Kumar, S., Chakraborty, T., **Mukherjee, A.** and Goyal, P. (2015). The role of citation context in predicting long-term citation profiles: an experimental study based on a massive bibliographic text dataset. In *CIKM (15)*, Melbourne, Australia.
 14. Chakraborty, T., Patranabis, S., Goyal, P. and **Mukherjee, A.** (2015). On the formation of circles in co-authorship networks. In *ACM SIGKDD(15)*, Sydney, Australia.
 15. Maity, S. K., Singh, J. S. and **Mukherjee, A.** (2015). Analysis and prediction of question topic popularity in community QA sites: A case study of Quora. In *ICWSM(15)*, Oxford, UK.
 16. Chakraborty, T., Kumar, S., Goyal, P., Ganguly, N. and **Mukherjee, A.** (2014). Towards a Stratified Learning Approach to Predict Future Citation Counts. In *JCDL(14)*, UK.
 17. Chakraborty, T., Srinivasan, S., Ganguly, N., **Mukherjee, A.** and Bhowmick, S. (2014). On the permanence of vertices in network communities. In *ACM SIGKDD(14)*, New York, USA.
 18. Mitra, S., Mitra, R., Riedl, M., Biemann, C., **Mukherjee, A.** and Goyal, P. (2014). That's sick dude!: Automatic identification of word sense change across different timescales. In *ACL(14)*, Baltimore, USA.
 19. Choudhury, M., Chatterjee, D., and **Mukherjee, A.** (2010). Global topology of word co-occurrence networks: Beyond the two-regime power-law, In *COLING(10)*, Beijing, China.
 20. Biemann, C., Choudhury, M., and **Mukherjee, A.** (2009). Syntax is from Mars while Semantics from Venus! Insights from Spectral Analysis of Distributional Similarity Networks, In *ACL(09)*, (short paper), Suntec, Singapore.
 21. **Mukherjee, A.**, Choudhury, M., Basu, A., and Ganguly, N. (2008). Modeling the Structure and Dynamics of the Consonant Inventories: A Complex Network Approach , In *COLING(08)*, Manchester, UK.
 22. **Mukherjee, A.**, Choudhury, M., Basu, A., and Ganguly, N. (2007). Redundancy Ratio: An Invariant Property of the Consonant Inventories of the World's Languages, In *ACL(07)*, Prague, Czech Republic.
 23. Choudhury, M., **Mukherjee, A.**, Basu, A., and Ganguly, N. (2006). Analysis and Synthesis of the Distribution of Consonants over Languages: A Complex Network Approach, In *COLING-ACL(06)*, Sydney, Australia.
- Technology Developed**
24. OCR++: A Robust Framework For Information Extraction from Scholarly Articles. <http://www.cnergres.iitkgp.ac.in/OCR++/home/>
 25. FeRoSA: A faceted recommendation system for scientific articles. <http://ferosa.org>
 26. SweepSticks: A virtual mouse for people with neuro-motor disorders.

SPONSORED PROJECTS

DAAD-DST PPP Grant
 Imprint Challenge Grant, Govt. of India.
 Unrestricted grant from Flipkart India Pvt. Ltd.
 Unrestricted grant from Yahoo! Research India.
 Unrestricted grant from Microsoft Research India.
 Post-disaster situation analysis, ITRA, DIT.
 Samsung GRO: Online social systems as bipartite networks.
 New Perspectives for computational social science, Indo-Italian DST.
 ICT for computational social science, Fast Track, DST.
 Data-driven approaches to opinion dynamics, Indo-Polish, DST.