

# Sujogya Banerjee

A graduate student of Department of Computer Science  
Arizona State University

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## Research Interests

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Network designing algorithms, network robustness, network resource optimization in wireless networks, data storage networks and Cloud Computing in presence of correlated faults.

## Education

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2007-present	PhD in Computer Science, Arizona State University, AZ Dissertation: "Design and Analysis of Networks in presence of Region Based Faults" Advisor: Prof. Arunabha Sen	GPA: 4.0/4.0
2003-2007	B.E in Computer Science and Engineering Jadavpur University, India. Project: "Generalized Approach of Validating User Input"	CGPA: 9.1/10

## Projects and Experience

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- ❖ Research Associate, Arizona State University Fall 2007 – present  
Project: "Robust Network Design - Connectivity and Beyond" with Prof. Arunabha Sen
  - Developed and implemented algorithms and optimizing techniques for Network designs and resource allocations in presence of Region-Based Faults
- ❖ Research Associate, Arizona State University Fall 2009 – present  
Project: DOD Minerva with Prof. Arunabha Sen and Dr. Hassan Davulcu
  - ❖ Developed a system for ranking organizations using social scale analysis.
  - ❖ Developed algorithms for partitioning social graphs based on radical/counter-radical discourse
- ❖ Teaching Associate, Arizona State University Spring 2011  
Course: Game Theory with Application to Networks
- ❖ Implemented "Universal One Way Hash Family", with Dr. Bimal Roy Spring 2006  
Cryptographic Department, Indian Statistical Institute, India.

## Publications

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1. “Beyond Connectivity - New Metrics to Evaluate Robustness of Networks”,  
**Sujogya Banerjee**, Shahrzad Shirazipourazad, Pavel Ghosh, Arunabha Sen, in IEEE HPSR, 2011
2. “Design and Analysis of Networks with Large Components in Presence of Region-Based Faults”,  
**Sujogya Banerjee**, Shahrzad Shirazipourazad, Arunabha Sen, in IEEE ICC, 2011
3. “Impact of Region-Based Faults on the Connectivity of Wireless Networks in Log-normal Shadow Fading Model”, **Sujogya Banerjee**, Arunabha Sen, in IEEE ICC, 2011
4. “On a Fault-tolerant Resource Allocation Scheme for Revenue Maximization in Data Centers”,  
**Sujogya Banerjee**, Sudheendra Murthy and Arunabha Sen, in IEEE ANTS, 2011
5. “On Region-based Fault Tolerant Design of Distributed File Storage in Networks”,  
**Sujogya Banerjee**, Shahrzad Shirazipourazad, Arunabha Sen, accepted in IEEE INFOCOM 2012 (Mini-Conference)
6. “Impact of Region-based Faults on the Connectivity of Wireless Networks” ,  
Arunabha Sen, **Sujogya Banerjee**, Pavel Ghosh, Shahrzad Shirazipourazad, in Allerton Conference on Communication, Control, and Computing, 2009
7. “Region-Based Connectivity - A New Paradigm for Design of Fault-tolerant Networks”  
Arunabha Sen, Sudheendra Murthy, **Sujogya Banerjee**, in IEEE HPSR, 2009
8. “A System for Ranking Organizations Using Social Scale Analysis”  
Sukru Tikves, **Sujogya Banerjee** , Hamy Temkit, Sedat Gokalp, Hasan Davulcu, Arunaba Sen, Steven Corman, Mark Woodward, Inayah Rochmaniyah, and Ali Amin, in International Symposium on Open Source Intelligence & Web Mining (OSINT-WM), 2011
9. “Dynamic Lightpath Allocation in Translucent WDM Optical Networks”  
Subir Bandyopadhyay, Quazi Rahman, **Sujogya Banerjee**, Sudheendra Murthy, Arunabha Sen in IEEE ICC, 2009
10. “Brief announcement: On Regenerator Placement Problems in Optical Networks”  
Arunabha Sen, **Sujogya Banerjee**, Pavel Ghosh, Sudheendra Murthy and Hung Ngo  
in ACM Symposium on Parallelism in Algorithms and Architectures (SPAA), June 2010
11. “Partitioning Signed Bipartite Graphs for Classification of Individuals and Organizations”  
**Sujogya Banerjee**, Kaushik Sarkar, Sedat Gokalp, Arunabha Sen and Hasan Davulcu, in SBP, 2012

## Talks and Presentations

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- ❖ *A Graph Partitioning Problem with Application to Radical/Counter-radical Discourse*  
INFORMS Computing Society Conference, January 2011, Monterey, CA.
- ❖ *Impact of Region-Based Faults on the Connectivity of Wireless Networks in Log-normal Shadow Fading Model*  
IEEE International Conference on Communication (ICC), Kyoto, Japan, June 2011
- ❖ *Design and Analysis of Networks with Large Components in Presence of Region-Based Faults*, in  
IEEE International Conference on Communication (ICC), Kyoto, Japan, June 2011

## Honors

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- Recipient of Science Foundation of Arizona (SFAZ) Fellowship for two consecutive years. (Fall 2007-Spring 2009)

## Professional Services

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- Helped organizing IEEE workshop on Network Science for Communication Networks (NetSciCom), 2011
- Reviewed several journals and conference papers for IEEE Transactions on Mobile Computing, IEEE Transactions on Networking, IEEE INFOCOM, HPSR, ICC, GLOBECOM, MILCOM, NetSciCom
- IEEE Student Member science 2007

## References

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Available on request