Raj Kamal

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IIT Delhi Campus, Hauz Khas, New Delhi - 110016. | *Voice:* (+91) 9971885337
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RESEARCH INTERESTS

Spectral Hypergraph Theory, Personalized PageRank, Machine Learning, Deep Learning, and Clustering Algorithms.

EDUCATION

Indian Institute of Technology (IIT) Delhi, India

Ph.D., Computer Science & Engineering.   December 2018 – Continuing
- Advisor: Dr. Amitabha Bagchi

Indian Institute of Technology (IIT) Delhi, India

M.Tech., Computer Applications.   July 2013 – June 2015
- Dissertation Topic: "Finite Fields and Their Applications"
- Advisor: Dr. R. K. Sharma

Indian Institute of Technology (IIT) Delhi, India

M.Sc., Mathematics.   July 2008 – June 2010
- Dissertation Topic: "Applications of Linear Algebra"
- Advisor: Dr. R. K. Sharma

EXPERIENCE

Indraprastha College For Women (University of Delhi)   July 2015 – Feb 2018
Assistant Professor of Mathematics

Miranda House (University of Delhi)   July 2011 – May 2013
Assistant Professor of Mathematics

Lovely Professional University, Jalandhar   July 2010 – Nov 2010
Assistant Professor of Mathematics

PUBLICATIONS

Raj Kamal, Amitabha Bagchi. A Lovasz-Simonovits Theorem for Hypergraphs with Application to Local Clustering. Accepted to ACM SIGMOD/PODS International Conference on Management of Data (SIGMOD 2025), June 2025. Published as Proc. ACM. Managment of Data, 2(4):1-27, Article No. 190, 30 September 2024. doi/10.1145/3677126

Mahdihusain Momin, Raj Kamal, Shantwana Dixit, Sayan Ranu, Amitabha Bagchi. KWIQ: Answering k-core Window Queries in Temporal Networks. To appear in 26th International Conference on Extending Database Technology (EDBT '23), March 2023. doi:10.48786/EDBT.2023.17

HONORS AND AWARDS

I am a Venkat Padmanabhan Doctoral Fellow.

Prof. M M Chawla Gold Medal for securing highest DGPA amongst all graduates of M.Tech. 2015.

All India Rank 19 in Gate - Mathematics.   2013.

COURSES
- **Teaching Assistant**: Discrete Mathematics, Numerical Methods, Data Structures.
- **PhD Course Work**: Data Mining, Advanced Data Structures and Algorithms, Digital Image Analysis, Software Engineering.

SKILLS
- **Proficient**: C, C++, Python, MATLAB, Mathematica.
- **Intermediate**: C#, Java.

REFERENCES

Dr. Amitabha Bagchi	**Dr. Sayan Ranu**
Department of Computer Science and Engineering	Department of Computer Science and Engineering
Indian Institute of Technology Delhi	Indian Institute of Technology Delhi
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