

Aritra Banik

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DATE OF April 28, 1984

BIRTH

CITIZENSHIP Indian

EDUCATION

I. **Senior Research Fellow, Indian Statistical Institute**, since August 2011.

II. **Junior Research Fellow, Indian Statistical Institute**, August 2009-August 2011.

III. **Master of Technology (M. Tech.), Indian Statistical Institute**, July 2007-May 2009.

IV. **Bachelor of Technology (B. Tech.), West Bengal University of Technology**, July 2003-May 2007.

RESEARCH

INTERESTS

I. **Computational Geometry:** Facility Location, Geometric Optimization, Motion Planning, Voronoi Diagrams.

II. **Combinatorial Geometry:** Epsilon-nets, Erdős-Szekeres Problems, Ramsey Theory, VC dimension.

III. **Information Retrieval:** Natural Language Processing in Information Retrieval, Semantic Web, Vector Space Classification.

JOURNAL

PUBLICATIONS

1. **A. Banik**, B. B. Bhattacharya, S. Das, Optimal Strategies for the One-Round Discrete Voronoi Game on a Line, *Journal of Combinatorial Optimization*, 1–15, 2012. ISSN 1382-6905. doi: 10.1007/s10878-011-9447-6.

CONFERENCE

PUBLICATIONS

1. **A. Banik**, S. Das, B. B. Bhattacharya, S. Das, S. Das, Two-round discrete Voronoi Game along a line, *Seventh International Frontiers of Algorithmics Workshop*, FAW 2013, to appear.
2. **A. Banik**, S. Das, A. Maheshwari, M. Smid, The Discrete Voronoi Game in a Simple Polygon, *Proc. 19th Annual International Computing and Combinatorics Conference*, COCOON 2013, to appear.

3. S. Bandyopadhyay, **A. Banik**, S. Das, H. Sarkar, Voronoi Game on Graphs, *Proc. Workshop on Algorithm and Computation*, WALCOM 2013, LNCS 7748, 77–88.
4. **A. Banik**, B. B. Bhattacharya, S. Das, Optimal Strategies for the One-Round Discrete Voronoi Game on a Line, *Proc. 17th Annual International Computing and Combinatorics Conference*, COCOON 2011, LNCS 6842, 213–224.
5. **A. Banik**, B. B. Bhattacharya, S. Das, The Minimum Enclosing Circle of a Set of Fixed Points and a Mobile Point, *Proc. Workshop on Algorithm and Computation*, WALCOM 2011, LNCS 6522, 98–109.
6. P. K. Bhowmick, A. Mukherjee, **A. Banik**, P. Mitra, A. Basu, A Comparative Study of Emotional and Non-Emotional Lexicons in the Wordnet: A Complex Network Approach, *6th International Conference on Natural Language Processing*, ICON 2008, Macmillan Publishers, India.
7. D. Mukhopadhyay, **A. Banik**, S. Mukherjee, A Technique for Automatic Construction of Ontology from Existing Database to Facilitate Semantic Web, *Proc. 10th International Conference on Information Technology*, ICIT 2007, IEEE CS Press, 246–251.

THESIS

1. *Using Negative Information for Text Retrieval*, Masters Thesis (M. Tech.), Indian Statistical Institute, Kolkata, India.

ACADEMIC VISITS

1. Invited to attend the Fields Workshop on Discrete and Computational Geometry held at the *Carleton University*, Ottawa, Canada from August 13-17, 2012.
2. Awarded Canadian Commonwealth Scholarship to visit *Carleton University* during April 2012- August 2012 and worked under the guidance of Prof. Anil Maheshwari and Prof. Michiel Smid.
3. Presented a paper in the *19th Annual International Computing and Combinatorics Conference*, COCOON 2011.
4. Presented a paper in the *Workshop on Algorithm and Computation*, WALCOM 2011, held at the *Indian Institute of Technology (IIT)*, Delhi, from February 18-20, 2011.
5. Invited to attend the school on *Geometric Computing* held at the *Indian Institute of Technology (IIT)*, Delhi from October 1-4, 2010.
6. Attended the *Workshop on Algorithm and Computation*, WALCOM 2010, held at the *Bangladesh University of Engineering and Technology (BUET)*, from February 10-12, 2010.
7. Invited to attend the workshop on *Introduction to Graph and Geometric Algorithms* held at the *Banaras Hindu University (BHU)* from 27-29 January, 2010.
8. Presented a paper in the *10th International Conference on Information Technology*, ICIT 2007, held at the *National Institute of Technology (NIT)*, Rourkela, from Decemeber 17-20, 2007.

REFERENCES

1. Dr. Arijit Bishnu
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