

# Parthajit Roy

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Dept. of Computer Science  
The University of Burdwan*

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## Education

- 2003 **Masters**, *The University of Burdwan, India, 1st Class* .  
Master of Computer Applications
- 1998 **Graduate**, *The University of Burdwan, India, 1st Class* .  
Mathematics (Hons)
- 1994 **Higher Secondary**, *Council:WBCHSE, West Bengal, Science Stream, 1st Div.* .  
Burdwan Town School
- 1992 **Secondary**, *Board:WBBSE, West Bengal, 1st Div.* .  
Burdwan Town School

## Experience

### Academic

- 2007-Now **Assistant Professor in Computer Science**, *The University of Burdwan.*  
Burdwan, West Bengal, India
- 2006-2007 **Assistant Professor in Computer Science**, *Maharani Kasiswari College.*  
Kolkata, West Bengal, India
- 2005-2006 **Lecturer in Computer Science**, *Maharani Kasiswari College.*  
Kolkata, West Bengal, India

### Industrial

- 2004-2005 **Trainee Developer**, *CMC Ltd.*  
Kolkata, West Bengal, India

## Research Interests

- Pattern Recognition, Clustering
- Graph based Computing, GIS

## Teaching Interests

- Data Structures
- Algorithms
- Automata Theory

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## Programming Languages

Skilled C, C++, Java, Python, Awk, R programming, PL/SQL, Visual Basic  
Moderate LISP, Prolog

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## List of Publications

### Year 2016

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- Parthajit Roy, Swati Adhikari, J. K. Mandal, "A Shortest Path Similarity Matrix based Spectral Clustering", International Journal of Computer Sciences and Engineering, Volume-04, Issue-01, Page No (9-15), Feb -2016, E-ISSN: 2347-2693
- Parthajit Roy, Swati Adhikari, J. K. Mandal, A Self-Organizing Map based Spectral Clustering on Shortest Path of a Graph, Book Chapter, in Hybrid Intelligence for Image Analysis and Understanding, John Wiley Publication, ISBN: 978-1-119-24292-5 (Accepted for Publication)
- Parthajit Roy, J.K. Mandal, An SVD based Real Coded Genetic Algorithm for Graph Clustering, IAES International Journal of Artificial Intelligence (IJAI) (Communicated)
- Parthajit Roy, J.K. Mandal, A Matching based Clustering Algorithm on Bipartite Graph, International Journal of Electrical and Computer Engineering (IJECE) (Communicated).

### Year 2015

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- Parthajit Roy, J.K. Mandal, "A Novel Spectral Clustering based on Local Distribution", International Journal of Electrical and Computer Engineering (IJECE), Vol. 5, No. 2, April 2015, pp. 361-370, ISSN: 2088-8708.
- Parthajit Roy, J.K. Mandal, "Performance Evaluation of Some Clustering Indices", presented in the conference Computational Intelligence in Data Mining - 2014, Volume 3, published in the Springer online in "Smart Innovation, Systems and Technologies" Volume 33, issn:2190-3018, isbn(print): 978-81-322-2201-9, isbn(online):978-81-322-2202-6 , pp:509-517, 2015.
- Parthajit Roy, Swati Adhikari, J.K. Mandal, "A Novel Similarity Matrix based Spectral Clustering for Two Class Problems", Proceedings of the National Conference on Computing, Communication and Information Processing (NCCCIP-2015), ISBN: 978-93-84935-27-6, pp:149-157, May 2015.

### Year 2014

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- Parthajit Roy, J. K. Mandal, Performance Evaluation of Some Clustering Indices, Computational Intelligence in Data Mining - Volume 3: Proceedings of the International Conference on CIDM, 20-21 December 2014, ISBN: 978-81-322-2202-6, Publisher: Springer, pp:509-517, 2015

### Year 2013

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- Swati Adhikari, J. K. Mandal and Parthajit Roy, "On The Strength of Self Organizing Feature Map for Clustering Non-Categorical Data" Proceedings of Second Internal Conference on Computing and Systems-2013, pp. 89-93, September, 2013.
- Parthajit Roy And J. K. Mandal, "A Novel Selective Scale Space based Fuzzy C-means Model for Spatial Clustering" Proceedings of First International Conference on Computational Intelligence: Modeling Techniques and Applications (CIMTA) 2013, (Published in: Procedia Technology of Elsevier, DOI:10.1016/j.protcy. 2013.12.400), vol. 10 pp.596-603, September, 2013.

### Year 2012

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- Parthajit Roy, J.K. Mandal, "A Delaunay Triangulation Preprocessing based Fuzzy-Encroachment Graph Clustering for Large Scale GIS Data" in International Symposium on Electronic System Design (ISED), 2012, pp. 300-305, doi. 10.1109/ISED.2012.54
- Parthajit Roy and J. K. Mandal, "A Relaxed Parzen Window Based Multifeatured Fuzzy-GIS Model to Forecast Facility Locations (RPWMFGISFFL)" Proceedings of the International Conference on Information Systems Design and Intelligent Applications 2012 (INDIA 2012), (Published in Advances in Intelligent and Soft Computing, 2012 of Springer, DOI: 10.1007/978-3-642- 27443-5), vol. 132/2012, pp. 623-630, 2012.
- Parthajit Roy and J. K. Mandal, "A Novel Spatial Fuzzy Clustering using Delaunay Triangulation for Large Scale GIS Data (NSFCDT)" Proceedings of the 2nd International Conference on Communication, Computing & Security [ICCCS-2012], (Published in: Procedia Technology of Elsevier, DOI:10.1016/j.protcy.2012.10.054, vol. 6, pp.452-459, 2012.

### Year 2011

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- Parthajit Roy and J. K. Mandal, "A Novel Fuzzy-GIS Model Based on Delaunay Triangulation to Forecast Facility Locations (FGISFFL)" International Symposium on Electronic System Design (ISED), 2011, Index at IEEE Xplore, DOI:10.1109/ISED.2011.48, pp. 341-346, 2011.
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