RESUME

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Date of birth : 1st January, 1966

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Areas of Interest :

i) Cryptography & Security.
ii) Optimization.
iii) Computational Geometry.
iv) Parallel Algorithms.
v) Randomized Algorithms.

Qualifications :

i) Madhyamik Examination, *Hindu School, 1981, (746/900), 82.89%, 1st division.*
ii) Higher Secondary Examination, *St. Xavier's College, 1983, (846/1000), 84.6%, 1st division.*

iii) B.E, Computer Science, *Jadavpur University, Calcutta, 1987, 86.14%, 1st class with honours.*

iv) M.E, Computer Science, *Indian Institute of Science, Bangalore, 1989, 6.7/8.0, 1st class.*

v) Ph.D, Computer Science, *Simon Fraser University, Canada, 1994, 3.56/4.0.*

Present Occupation :

Associate Professor, Department of Computer Science and Engineering, Indian Institute of Technology, Guwahati. (October 2008 onwards)

Current Annual Salary: Rs. 7,56, 000/- (Approx.)

Work Experience :

i) Taught Database Systems, Grande Prairie Regional College, Alberta, Canada. (Sept. 1994 -- Feb. 1995).

ii) Post-doctoral Fellow, MRCO Research Group, Carleton University, Canada. (March 1995 -- May 1995).

iii) Research Scientist, Project on Storage Retrieval and Understanding of Video for Multimedia, Computer Science and Engineering Department, Jadavpur University.(April 1996 -- May 1999).

iv) Research Scientist, Center for Microprocessor Training Education and Research, Computer Science and Engineering Department, Jadavpur University.(May 1999 -- June 2000).

v) Assistant Professor, National Institute of Management Calcutta (July 2000 – December 2004).

vi) Assistant Professor, Indian Institute of Technology Guwahati (December 2004 – October 2008).

Taught :

a) Systems Programming in Department of Computer Science, Jadavpur University, Calcutta.

b) Numerical analysis and C programming in Production Engineering Department, Jadavpur University, Calcutta.

c) Compiler Design, Theory of Computer Science, Graph Theory in IEM Salt Lake, Calcutta.

d) Computer Organization & Architecture in Electronics & Telecommunication Enggineering Department, Jadavpur University, Calcutta.

e) Java Programming in SRUVM Project, Jadavpur University, Calcutta.

f) Data Structures, Design and Analysis of Algorithms, Introduction to Digital Electronics, Database Systems, Cryptography and Data Security at National Institute of Management Calcutta (NIMC).

g) Java Programming at MBM Department, Calcutta University.

h) Algorithms, Optimization, Data Structures, Computational Number Theory & Cryptography, Theory of Computation & Computer Graphics at IIT Guwahati,

Publications :

Refereed Indian Journals:

i) P. Mitra, "A Comparative Analysis of Huffman Coding", *The IUP Journal of Computer Sciences*, Vol VI, No. 1, January 2012, pp. 17 -- 22.

ii) P. Mitra, S. Swain, Zero Knowledge Interactive Proof for Elliptic Curve Discrete Logarithm Problem (ECDLP), *International J. of Advanced Computing* (*IJAC*), vol. 1, 2010.

iii) P. Mitra, C. S. Chowdary, Novel Method for Improving the Exact Matching of the Molecular Graphs, International Journal of Recent Trends in Engineering, 2009.

iv) P. Mitra, M. Durgaprasada Rao and M. Kranthi Kumar, Algorithms to Compute a Generator of the Group $(Z_p^*, \times_p)$ and Safe Primes, International Journal of Information Processing.

v) P. Mitra M. Nasipuri & D. K. Basu, Improved Image Data Compression for Multimedia Applications, *International Journal of Information & Computing Science*.

Refereed Foreign Journals:

i) P. Mitra, G. Sundaram and A. Tripathi, Business Process Based Database Recovery and Experimental Results, *Int. J. of Database Management Systems (IJDMS)*, Vol. 3, No. 4, November 2011, pp. 118 – 130.

ii) P. Mitra, G. Sundaram, S. G. Kumar and V. Kurup, Mail Plugin for IBM Mashup Center, *International Journal of Electronic Commerce Studies*, Vol. 1, No.2, 2010, pp. 139 –148.

iii) P.Mitra and K. Baid, Generation of Targeted Advertising for Online Social Networks, *International Journal of Web Applications*, pp. 129 -- 136 .

iv) P. Mitra & B. B. Chaudhuri, Efficiently Computing the Closest Point to a Query Line, *Pattern Recognition Letters* 19 (1998), pp. 1027 -- 1035.

v) P. Mitra & S. C. Nandy, Efficient Computation of Rectilinear Geodesic Voronoi Neighbor in Presence of Obstacles, *J. of Algorithms,* 28(2) : 315, 1998 August.

vi) P. Mitra, Answering Gabriel Neighbour Queries, *Pattern Recognition Letters*, 13(1992), pp. 557 -- 560.

vii) H. ElGindy & P.Mitra, Orthogonal Shortest Route Queries Among Axes Parallel Rectangular Obstacles, *Int. J. of Comput. Geom. & Appl.*, 4(1), 1994, pp. 3 -- 24.

Un-refereed Journals:

i) P. Mitra & L. Hafer, Efficient Computation of the Medial Axes, Technical Report # CMPT TR 98-07, Simon Fraser University.

International Conference Papers:

i) P. Mitra, G. Sundaram, S. G. Kumar and V. Kurup, Mail Plugin for IBM Mashup Center, International Conference on Internet Studies, Taipei, Paiwan.

ii) P Mitra and M. Samal, Approximation Algorithm For Correlation Clustering, NDT 2009.

iii) P Mitra and K. Baid, Targeted Advertising for Online Social Networks, NDT 2009.

iv) P. Mitra and N. Amarnadh, Upper Bound on Dilation of Triangulations of Cyclic Polygons, ICCSA 2006, Glasgow, U.K, LNCS 3980, pp. 1 -- 10.

v) P. Mitra and C. Chaudhuri, Efficient Algorithm for the Extraction of Association Rules in Data Mining, ICCSA 2006, Glasgow, U.K, LNCS 3981, pp. 1 -- 10.

viii) P. Mitra, A. Mukhopadhyay and S.V. Rao, Efficiently Computing the closest point to a query ring, manuscript (accepted in CCCG 2003, Halifax, Nova Scotia).

ix) P. Mitra and A. Mukhopadhyay, Computing the Closest Point to a Query Hyperplane in Higher Dimensions, LNCS 2669, Part III, ICCSA 2003, Montreal, May 2003, pp. 787 -- 796.

x) P. Mitra & B.K. Bhattacharya, Efficient Approximate Shortest Path Query Among Isothetic Rectangular Obstacles, *WADS'93*, pp. 518 -- 529.

xi) P. Mitra, Efficient Parallel Shortest Path Algorithms for K-Chordal Graphs, *International Parallel Processing Symposium 1992*, pp. 88 – 94.

National Conference Papers:

i) P. Mitra and S. Swain, Supersingularity and Cyclicity of Elliptic Curves, *National Workshop on Network Security (NWNS) 2010*, Tezpur University.

ii) K. Narendra, S. V. Rao, P. Mitra and P. Viswanath, Speeding up of Polynomial Time Isomorphic Matching of Molecular Graphs, *International Conference on Data Management, ICDM 2010*, Gazhiabad, India.

iii) P. Mitra & S. C. Nandy, Efficient Computation of Rectilinear Geodesic Voronoi Neighbor in Presence of Obstacles, *FST&TCS, Lecture Notes in Computer Science 1180, Springer Verlag*, 1996, pp. 76 --87.

iv) P. Mitra M. Nasipuri & D. K. Basu, Improved Image Data Compression for Multimedia Applications, *International Seminar on International Business Through Internet (IBTI-99)*, pp. 31 -- 41.

v) P. Mitra and Nanigopal Das, Distributed Join Algorithm on Expander Networks, ReTIS 2006, pp. 9 – 12.

Fellowship :

Awarded S.F.U President's Ph.D Research Stipend.

Other Activities :

i) Referred papers for *Algorithmica, Information Processing Letters, Pattern Recognition Letters, IISC Journal, Robotics and Computer Integrated Manufacturing.*

ii) Reviewed papers for *A.C.M Symposium on Computational Geometry, ReTIS – 2006, CIT- 2006, ICIT-2007.*

iii) Organized a *QIP STC* "*Application Specific Algorithms: Design & Analysis*" in IIT(G) during July 4 – 8, 2006.

iv) Organized a *QIP STC* "*Data Structures & Algorithms*" in IIT(G) during July 4 – 8, 2011.
