RESUME

NAME:

KIRUBA BAGIRATHI

EDUCATION:

Ph.D., Mathematics, Ramanujan Institute for Advanced Study in Mathematics, University of Madras, Chennai,2004.

M.Phil.,Mathematics, Ramanujan Institute for Advanced Study in Mathematics, University of Madras, Chennai,1996.

M.Sc., Mathematics, St.John's College, Palayamkottai, Tirunelveli Dist., Tamil Nadu, 1995.

PROFESSIONAL RECORD:

Ph.D. Student at Ramanujan Institute from 1996-2004.

Post Doctorate position at School of Mathematics, Tata Institute of Fundamental Research, Mumbai from 2004-Jan.2006.

Career break due to maternity reasons from 2006-2012.

Research Associate III at International Institute of Information Technology, Bangalore from Sep.2012-Sep.2013.

Teaching Assistant for Mathematics course at International Institute of Information Technology, Bangalore from Sep.2013-April2014.

Post doctoral fellow in the project "Algebraic topological techniques for volume visualisation" funded by University Grants Commission, New Delhi from May 2014.

SCHOLARSHIPS, FELLOWSHIPS, AWARDS RECEIVED DURING ACADEMIC CAREER :

Received the scholarship awarded by Cadets Welfare Society, National Cadet Corps for outstanding academic performance in 1993.

Selected as Junior Research Fellow in a research project funded by Department od Science and Technology, Govt of India, New Delhi in 1998.

Received the post doctoral fellowship offered by School of Mathematics, Tata Institute of Fundamental Research, Mumbai in 2004.

Selected for post doctoral fellowship offered by National Board of Higher Mathematics, Dept. of Atomic Energy, Mumbai in 2004.

DETAILS OF RESEARCH:

Was studying representation theoretical aspects of various Kac-Moody Lie algebras like toroidal Lie algebras and extended affine Lie algebras during my post doctoral tenure. Was trying to extend the idea of vertex operator representations to extended affine Lie algebras.

Was working as a RAIII in the project" "LAN- based Interactive, Three-Dimensional Visualization of LiDaR Data", sponsored by Natural Resources Data Management System (NRDMS).This project involves processing Lidar point data sets which are captured by using Lidar technology, one of the efficient remote sensing technologies and developing visualization algorithms. Have come across machine learning techniques like clustering and dimensionality reduction that uses spectral graph theory and principal component analysis.

COMPUTER EXPERIENCE:

Courses: Unix and C.

Matlab Programming.

Proficiency in Latex.

PUBLICATIONS:

"Homogeneous vertex operators and Hirota bilinear equations for $B_2^{(1)}$," *Indian Journal of Pure and Applied Mathematics*, 3(11), 1649-1664,2002.

"Principal vertex operator and Hirota bilinear equations for $B_3^{(1)}$," *Contemporary Mathematics, AMS(USA)*, 343, 263-287,2004.

"Principal vertex operator and super Hirota bilinear equations for a non simply laced affine Kac-Moody Lie algebra," *International Electronic Journal of Pure and Applied Mathematics*, Vol.1, No.4, 429-444,2010.