

Curriculum Vitae

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Nationality: Indian

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Academic Qualifications

- Ph.D. (Electronics), 'Opto-Electronics', Department of Electronic Science, University of Delhi South Campus, New Delhi, INDIA 1997.

Area of Specialisation: Teaching and Learning Technologies, Networks

Main Professional Achievements:

- Founding team member of Institute of Informatics and Communication, University of Delhi South Campus, 1997 and continuing. This has involved: -
 - Conceptualizing, planning and designing
 - Setting up and operation of complete ICT and related operational infrastructure
 - Post Graduate Curriculum Development in sync with academic, industrial and societal requirements
 - Introduction and execution of networked teaching system involving inter-department and industry faculty
- Setting up Institute of Lifelong Learning, University of Delhi, 2007-09. This has involved: -
 - Conceptualization to designing, setting up of complete ICT infrastructure, and piloting campus-wide multimedia ICT driven Institute for University of Delhi.
 - Faculty training on ICT tools and techniques
 - Content development for multimedia teaching and learning system

Advisory Role

- Set up Industry led Incubator, IIC, University of Delhi South Campus
- Development of Science and Technology Parks (STP) in PPP mode in SEZ
- Designed MIS, Department of Technical Education, Chhattisgarh State, India
- Procurement Management System for NITs sponsored by World Bank.
- E-Procurement Management for Educational Consultants India.
- Designed ERP for Educational Consultant India Limited, Govt. of India.
- ICT based Learning and Teaching Projects at various Institutions

Teaching Experience: 14 years of Post Graduate teaching (Summarised below)

I have been teaching IT Management, Network Applications Design and MIS for the last 14 years in the Institute of Informatics and Communication, University of Delhi South Campus since its inception (1998) and at Faculty of Management Studies (FMS), University of Delhi during 2005-2007 as guest faculty. The courses I taught were at Post Graduate level.

I enjoy and value my interactions with students. It enabled me to motivate them towards higher learning and simultaneously their questions have helped me to expand my scope of teaching. My course evaluations from students have been consistently satisfactory.

Most importantly, I am firmly committed to Technology led Teaching and Learning.

Pedagogy adopted by me has focussed on project based interactive teaching & learning and adoption of OER and Open source tools.

Research Experience: 20 years

Ph.D. research was in Optical Communication involving fabrication and characterization of optical waveguides based on Lithium Niobate and polymers. Using metal clad guides, mode filter, couplers were designed and fabricated and a prototype polymer waveguide modulator was developed.

My post doctoral research has been in applied learning technology and advanced network technologies that include computer mediated communication, ICT enabled collaborative learning, design and implementation of Virtual Learning Environment (VLE) using Open Source Solutions and MIS.

I have carried out research based sponsored projects of The European Commission and Department of Scientific and Industrial Research, Govt. of India.

Research Publications: 40

Organised and participated in several national and international conferences and have delivered several invited lectures at national and international level.

(Details of research projects, publications, conferences and invited talks are at annexure 1)

Membership of Learned Bodies & Professional/Administrative Experience

- Dy. Proctor, University of Delhi South Campus
- Member, Association of Learning Technologies (ALT), UK.
- Panel Member, Linux Asia Forum.
- Member, National IT Committee, FICCI.
- Member, Restructuring Committee, FICCI.
- Expert Member, EPFO Restructuring Committee, Govt. of India.
- Expert Member, Internet Committee, DSIR, Govt. of India.
- Member, IT Committee, Indian Council for Social Science Research (ICSSR).
- Member, Expert Advisory Board, Vittal Centre for Management & Governance Informatics.
- Life Member, Semiconductor Society India.
- Member, Advisory Board, Phoenix International Business School, Udaipur.
- Member, Advisory Board, SSLD, Women Engineering College, Aligarh.
- Secretary, Society for Promotion & Development of Eco-Friendly Polymers.

Research Projects

- Principal Researcher (Investigator), **“EU-India Cross Cultural Innovation Network”**, Sponsored by European Commission, Collaborating Institute: University of Brighton, UK. 1999-2002.
- Principal Investigator, **“Scientometric study of Indian patent Literature-Patentometrics”**, Sponsored by DSIR, Ministry of Science & Technology Govt. of India. 2003-2005.
- Principal Investigator, **“Design, Development & Implementation of DSIR Portal”**, Sponsored by DSIR, Ministry of Science & Technology Govt. of India. 2004-2005.
- Principal Investigator, **“Development of Software for National Register of Foreign Collaboration (NRFC)”**, Sponsored by DSIR, Ministry of Science & Technology Govt. of India. 2005-2007.

Symposium/Workshops Organised

- National Open Source Tech-Fest **“Envisage’12”**, February, 25-26, 2012, UDSC, New Delhi.
- National Open Source Tech-Fest **“Envisage’11”**, March 12-13, 2011, UDSC, New Delhi.
- National Open Source Tech-Fest **“Envisage’10”**, March 5-6, 2010., UDSC, New Delhi.
- National Seminar on **“ICT enabled Teaching and Learning for Higher Education”**, September 24-26, 2009, UDSC, New Delhi.
- National Open Source Tech-Fest **“Envisage’09”**, Feb. 28-March 1, 2009., UDSC, New Delhi.
- National Open Source Tech-Fest **“Envisage’08”**, March 15-16, 2008, UDSC, New Delhi.
- National Open Source Tech-Fest **“Envisage’07”**, February 24-25, 2007, UDSC, New Delhi.
- National Seminar on **“Internetworking Technologies”**, August 2006, UDSC, New Delhi.
- International Symposium on **“Emerging trends in Networking Technologies”**, Nov. 5-6, 2001, UDSC, New Delhi.
- International Workshop on **“ICT For Sustainable Development”**, Nov. 30, 2001, UDSC, New Delhi.
- International Symposium on **“Multimedia Content Creation for Societal Transformation”**, Dec. 16, 2000, India International Centre, New Delhi.

International Meetings /Conferences

- IP-WiS’13, to deliver invited talk in International Conference on Information Processing and Wireless System, Djerba, Tunisia during 21-24 March, 2013.
- **ICIC, Daedeok Innopolis**, to deliver invited talk in International Conference on innovation cluster (ICIC). **South Korea**, to be held on September 19-20, 2012.
- **El Ghazala Technopark**, setup a virtual innovation network for sustainable development, Tunisia, July 5-7, 2010.
- **Development and Management of Innovation Cluster (Science and Technology Parks)**, Organized by Daedok Innopolis, Daejeon. **South Korea**, November 2-15, 2008.
- **MoodleMoot’08**, to deliver the talk **“Building Enterprise Learning Environments”** in International Conference on Virtual Learning. **San Francisco, USA**, June 9-11, 2008.
- **ICIC, Daedeok Innopolis**, to deliver invited talk in International Conference on innovation cluster (ICIC). **South Korea**, May 19-20, 2008.

- **ICIC, Daedeok Innopolis**, to present paper in International Conference on innovation cluster (ICIC). **South Korea**, April 17-19, 2007.
- **Information and Communication University (ICU)**, Open Source based research collaboration for e-learning platform. **South Korea**, Nov. 6-8, 2006
- **University of Brighton**, Workshop on EU-India Innovation Network. **UK**, July 6-22, 2002.
- **University of Brighton**, collaborative research on learning technologies. **UK**, September, 2001
- **University of Manchester in Science and Technology (UMIST)** under **Commonwealth Fellowship**, ALT-C 2000, 2000

Publications & Presented Papers

A In ICT Based Learning and Education

1. **“Educational Technologies of the 21st Century: Possibilities and Challenges”**, Institution of Electronics and Telecommunication Engineers (IETE) Apex Forum on E-education, New Delhi, India, 23 December 2011.
2. **“Large Scale Wireless Network in Higher Education”**, Asia Pacific WiFi Conference, Kuala Lumpur, Malaysia, 6-7 July 2011.
3. **“Content Creation and Consolidation”**, Open Paradigm in Education, International Conference on Open Learning, New Delhi, January 31 – February 2, 2011.
4. **“Digital Archiving: A System Design Approach”**, International Conference on Digital Archiving, Ambedkar University Delhi (AUD), December 15-18, 2010.
5. **“Virtual Learning Environment: Issues and Challenges in Higher Education Domain”**, 10th IEEE International Conference on Advance Learning Technologies, Sousse, Tunisia, July 2010.
6. **“Open Source led ICT Innovation in higher Education”**, 11th International Conference on Technology Policy and Innovation, New Delhi, March 13-15, 2009.
7. **“Learning Environments for Next Generation: Process Innovation”**, National Seminar on Innovation in Distance Education and Their Applications, IGNOU, December 22-23, 2008.
8. **“Building Enterprise Learning Environment”**, “MoodleMoot-2008”, International Conference on Virtual Learning, San Francisco, USA, June 11-13, 2008.
9. **“Industry University Government: Awaited Innovation Network”**, International Conference on Innovation Cluster (ICIC), Daedeok Innopolis, South Korea, April 18-19, 2007.

10. **"Open Source ICT based learning Environment"**, International conference on Open Source for e-learning platform, Information and Communication University (ICU), South Korea, Nov. 6-8, 2006.
11. **"ICT in Higher Education: An Open Source Perspective to Adaptive Learning Framework"**, Digital Learning 2005, Volume 1, pp 15, 2005.
12. **"ICT Implementation in University System"**, International workshop on ICT for Sustainable Development, University of Delhi South Campus, November 30, 2001.
13. **"Web Based Open Teaching and Learning Technologies for University System"**, International conference on use of Technology in teaching and learning of Mathematics and Biomathematics, University of Delhi South Campus, December 16, 2001.
14. **"Networking Technologies in University Scenario's: Design Approach to Campus Network"**, International Seminar on Emerging Trends in Networking Technologies, University of Delhi South Campus, November 5, 2001.
15. **"Networking: A Study in Cross Cultural Collaboration"**, Presented in ALT-C 2000, University of Manchester in Science and Technology (UMIST), UK, September 13, 2000 and published in Journal of Association of Learning Technologies, ALT-J, 2000.
16. **"Development of Multimedia Course for University Students Community: A Design Approach"**, presented in International Workshop on Multimedia Content Creation, November 16, 2000.

B In Communication (Electronics)

17. **"A Study of Dip Coated Thin Film Polycarbonate Optical Waveguides"**, Applied Optics, Vol.37 (18), 1998.
18. **"Optimization of Waveguide Parameters of bisphenol A polycarbonate"** Solid State Communication, Vol. 100, pp 503-506, 1996.
19. **"Fabrication and Characterisation of ZnO thin films by envelope and waveguide methods"**, J. of Optics, Paris, Vol. 77, No. 6, pp 13-17, 1995.
20. **"Determination of Waveguide Parameter of Non-Linear Optical Polymers and their Applications"**, Proc. SPIE, Int. Soc. Opt. Eng. 273, pp. 594-596, 1996.
21. **"Some Recent Investigations on Conducting Polypyrrole Thin Films"**, Ind. J. Pure & App. Phys., 1996.
22. **"Electroabsorption and Optical Reflection Studies on Polypyrrole Films"**, Ind. J. Pure & App. Phys., Vol. 34, pp 908-911, 1996.
23. **"Design and Development of Polymer based modulator"**, Asia pacific Microwave Conference (APMC), 1999.

24. ***“Styrene Acrylonitrile Optical Waveguides for Integrated Optics”***, Int. Workshop on Physics of semiconductor devices (IWPSD’97) I.I.T. Delhi 1997.
25. ***“Determination of waveguide parameters of non-linear optical polymers”***, International Workshop on Physics of Semiconductor Devices (IWPSD), NPL, pp 594—596, New Delhi, India, 1995.
26. ***“Semiconductor Polymer thin films Device for Integrated Optics”***, International Workshop on Physics of Semiconductors Devices (IWPSD), NPL, p 229-231, New Delhi, India, 1995.
27. ***“Low Dimensional Polymeric thin film Devices”***, Regional Workshop on Low Dimensional Semiconductor Structures (LDSS,95), p 46, New Delhi, India, 1995.
28. ***“Investigation of ordinary refractive index of RF sputtered ZnO optical waveguide”***, National Seminar on emerging Trends in thin film Technology and Device Fabrication, Cochin, India, 1995.
29. ***“Fabrication of Polymeric optical waveguide from Acrylonitrile, Its Characterisation and Application”***, National Seminar on emerging Trends in thin film Technology and Device Fabrication, Cochin, India, 1995.
30. ***“Optical Tuning of Dielectric Resonator for Microwave Subsystems”***, 6th International Crimean conference on Microwave and Telecommunication Technology, Ukrain, proc., pp12, 1996.
31. ***“Role of Polymers in Integrated Optical Devices”***, ICSMT’96 International Conference and Intensive Tutorial Course on Semiconductor Materials and Technology, New Delhi, INDIA, 1996.
32. ***“Nonlinear Optical Properties of Organic Polymers”***, proceedings of ICSMT’96, International Conference and Intensive Tutorial Course on Semiconductor Materials and Technology, New Delhi, INDIA, Tranctech Publishers, Switzerland, 1996.

Chapter in Books

33. ***“Planning & Developing Cross Cultural Collaboration in Web Based ICT Education”***, in ‘***Navigating Innovations***’, edited by Prof. Dietrich Brandt, 2003.
34. ***“ICT: Platform for India-Japan Global Partnership”***, Japan Foundation, 2007.

Invited Talks

35. ***“Virtual Learning Environment for Higher Education”***, National Workshop on Quality Assurance through Blended Learning, 19-21 January 2010, New Delhi.
36. ***“Open Source Framework for ICT led learning”***, National Seminar on Technology Enhanced Teaching and Learning, 24-26 September 2009, New Delhi.
37. ***“Science and Technology Parks: Sustainable growth for academia and industry”***, ICIC, Daedeok Innopolis, International Conference on innovation cluster. **South Korea**, May 19-20, 2008.

38. **"ERP for Higher Education"**, Knowledge Commission meeting, New Delhi, January 13, 2007.
39. **"Open Source Framework for Universities"**, Linux Asia 2006.
40. **"E-Learning: Emerging Indian Market"**, National Seminar on E-Learning, PHD House, New Delhi, 2002.
41. **"Search Strategies: Information Search on the Internet"**, Workshop on Social Science Research Resource in the Internet Era, Indian Council of Social Science Research, New Delhi, 2002.
42. **"Optimization of Web Search Engines for Academic Community"**, Workshop-cum-Symposium on Information Technology for Social Science", CRRID, Chandigarh, February 22. 2001.

Important Open Source / Web Development and Deployment

43. Developed the first Virtual Learning environment for University of Delhi South Campus (<http://vle.south.du.ac.in>), providing various PG and UG courses online, 2006.
44. Compiled **Open Source Software Resource Kit** for the students of Delhi University and hosted at <http://oss.iic.ac.in>, 2006. (Release comes every year).
45. Design and development of the **University of Delhi South Campus web portal** (<http://www.south.du.ac.in>), 2003.
46. Design and published the **first web based course for the University students** (<http://learntech.bton.ac.uk/euindia>) at the School of Information Sciences, University of Brighton, U.K, September, 2000.
47. Design and Published the web portal for Institute of Informatics and Communication (IIC) at <http://www.iic.ac.in> along with various services, 1998, (first in Delhi University).

Under publication

48. **"Role of Open Source Framework in University System"**, AI & Society, Springer, UK.