Curriculum Vitae

Name: Sanjeev Singh

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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 Interest: Computer Networks, Cyber-Physical Systems, Security

Key Professional Achievements:

- Founding team member of Institute of Informatics and Communication, University of Delhi South Campus, 1998 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
- Development of MIS, Department of Technical Education, Chhattisgarh State, India
- Development of ERP framework for Delhi University
- Development of Open source repository for Higher Education
- Procurement Management System for NITs sponsored by World Bank
- ICT based Learning and Teaching Projects at various Institutions
- Development of web based Virtual Classroom for Delhi University.

Teaching Experience: 25 years of Post Graduate teaching (Summarised below)

I have been teaching IT Management, Network Architecture and Applications Design 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 visiting 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 the adoption of OER and Open source tools.

Research Experience: **30 years**

My Ph.D. research focused on Optical Communication, specifically on the fabrication and characterization of optical waveguides using Lithium Niobate and polymers. During this period, I designed and fabricated metal-clad guides, mode filters, and couplers. Additionally, I developed a prototype polymer waveguide modulator.

In my post-doctoral research, I shifted focus to applied learning technology and advanced network technologies. This work included computer-mediated communication, ICT-enabled collaborative learning, and the design and implementation of Virtual Learning Environments (VLE) using Open Source Solutions and Management Information Systems (MIS). I have led and participated in research projects sponsored by the European Commission and the Department of Scientific and Industrial Research, Government of India.

I have organized and participated in several national and international conferences and have delivered numerous invited lectures at both national and international levels. My research career began in electronics, and I have since expanded my work to various applied fields, including Artificial Intelligence (AI), Machine Learning (ML), cybersecurity, and the development of standards for wearable devices in cybersecurity.

Key Assignments, Membership of Learned Bodies & Professional/Administrative Experience

- Joint Director, University of Delhi South Campus
- Member, PMG, Electropreneur Park, University of Delhi South Campus, MeitY, Govt. of India.
- Director, Delhi University Computer Center
- Jt. 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).
- Life Member, Semiconductor Society India.
- Secretary, Society for Promotion & Development of Eco-Friendly Polymers.

Research Projects

- Principal Investigator, *"**SAMARTH**- University Automation and DSS",* Sponsored by MHRD Govt. of India. 2019-2027.
- Principal Investigator, "**Development of Mobile Applications (Apps) Security Standard (MASS)", Sponsored by** K-Grid Knowledge Ventures. 2016-17.
- Principal Investigator, "Development of Open Source Repository for University – DUFORGE", University R&D Grant, 2013.
- Principal Investigator, "***Development of Software for National Register of Foreign Collaboration (NRFC)***", Sponsored by DSIR, Ministry of Science & Technology Govt. of India. 2005-2007.
- Principal Investigator, "***Design, Development & Implementation of DSIR Portal***", Sponsored by DSIR, Ministry of Science & Technology Govt. of India. 2004-2005.
- Principal Investigator, *"**Scientometric study of Indian patent Literature-Patentometrics**",* Sponsored by DSIR, Ministry of Science & Technology Govt. of India. 2003-2005.
- Principal Researcher (Investigator), "***EU-India Cross Cultural Innovation Network***", Sponsored by European Commission, Collaborating Institute: University of Brighton, UK. 1999-2002.

Symposium/Workshops Organised

- **ILUGD's Raspberry Pi** Community BootCamp 2019 Workshop at University of Delhi South Campus.
- **Raspberry Pi Jam** 2019 Workshop at University of Delhi South Campus.
- **Cloud Computing** Workshop at University of Delhi South Campus, 2018.
- **IESA Makeathon** at University of Delhi South Campus, 2018.
- **Techspur** at University of Delhi South Campus, 2018.
- **MATLAB** workshop at University of Delhi South Campus, 2018.
- **MATLAB** workshop at Delhi University Computer Center, North Campus, 2018.
- National Seminar on "ICT enabled Teaching and Learning for Higher Education", September 24-26, 2009, 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.

Annual Events organised (*every year in the month of February, Since 2006*)

- National Open Source Tech-Fest "***Envisage"*** at University of Delhi South Campus.

International Meetings /Conferences

- **BIS TC124/WG4** IEC/ISO Standard Committee 2023, Japan, to represent India.
- **BIS TC124/WG4** summit 2018, South Korea, to represent India.
- **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 the 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), O**pen 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

A. Information and Communication Technologies

- Vajrobol, V., Aggarwal, N., Saxena, G. J., Singh, S., & Pundir, A. (2024). Transforming SEO in the Era of Generative AI: Challenges, Opportunities, and Future Prospects. Revolutionizing the AI-Digital Landscape, 86-100. https://www.taylorfrancis.com/chapters/edit/10.4324/9781032688305-6/transforming-seo-era-generative-ai-challenges-opportunities-future-prospects-vajratiya-vajrobol-nitisha-aggarwal-geetika-jain-saxena-sanjeev-singh-amit-pundir
- Jain, S., Pundir, A., Singh, S., & Saxena, G. J. (2024). Navigating the face recognition: unleashing the power of few-shot learning through metric-based insights. Multimedia Tools and Applications, 1-23. https://doi.org/10.1007/s11042-024-18671-5
- Shukla, U., Singh, S., Pundir, A., & Saxena, G. J. (2023, December). Large language model based framework for knowledgebase coverage and correctness using chatbot and human feedback. In 2023 IEEE 7th Conference on Information and Communication Technology (CICT) (pp. 1-7). IEEE. https://ieeexplore.ieee.org/abstract/document/10455408
- Rawat, M., Bafila, A. S., Kumar, S., Kumar, M., Pundir, A., & Singh, S. (2023). A new encryption model for multimedia content using two dimensional Brownian motion and coupled map lattice. Multimedia Tools and Applications, 82(28), 43421-43453. https://doi.org/10.1007/s11042-023-14841-z
- Thushari, P. D., Aggarwal, N., Vajrobol, V., Saxena, G. J., Singh, S., & Pundir, A. (2023). Identifying discernible indications of psychological well-being using ML: explainable AI in reddit social media interactions. Social Network Analysis and Mining, 13(1), 141. https://doi.org/10.1007/s13278-023-01145-1
- Vajrobol, V., Aggarwal, N., Shukla, U., Saxena, G. J., Singh, S., & Pundir, A. (2023). Explainable cross-lingual depression identification based on multi-head attention networks in Thai context. International Journal of Information Technology, 1-16. https://doi.org/10.1007/s41870-023-01512-3
- Gandhi, S., Bhushan, A., Shukla, U., Pundir, A., Singh, S., & Srivastava, T. (2023). Downregulation of lncRNA SNHG1 in hypoxia and stem cells is associated with poor disease

prognosis in gliomas. Cell Cycle, 22(9), 1135-1153. https://doi.org/10.1080/15384101.2023.2191411

- Aggarwal, N., Pundir, I., Shukla, U., & Singh, S. (2022, November). Spatiotemporal Prediction of Chickenpox Cases using Graph Attention Network. In 2022 IEEE 19th India Council International Conference (INDICON) (pp. 1-5). IEEE. https://doi.org/10.1109/INDICON56171.2022.10040199
- Aggarwal, N., Shukla, U., Saxena, G. J., Rawat, M., Bafila, A. S., Singh, S., & Pundir, A. (2023). Mean based relief: An improved feature selection method based on ReliefF. Applied Intelligence, 53(19), 23004-23028. https://doi.org/10.1007/s10489-023-04662-w
- Aggarwal, N., Saxena, G. J., Singh, S., & Pundir, A. (2023). Can I say, now machines can think?. arXiv preprint arXiv:2307.07526.
- Sharma, K., Chawla, R., Shukla, U., Aggarwal, N., Bafila, A. S., Singh, S., ... & Saxena, G. J. (2022, April). Predictive Analysis based on Feature Relevance Estimation for Survival Rate Post Heart Failure using Ensemble Learners. In 2022 IEEE International Conference on Distributed Computing and Electrical Circuits and Electronics (ICDCECE) (pp. 1-7). IEEE. https://doi.org/10.1109/ICDCECE53908.2022.9792679
- Pundir, A., Singh, S., Kumar, M., Bafila, A., & Saxena, G. J. (2022). Cyber-physical systems enabled transport networks in smart cities: Challenges and enabling technologies of the new mobility era. IEEE Access, 10, 16350-16364. https://doi.org/10.1109/ACCESS.2022.3147323
- Budhiraja, R., Kumar, M., Das, M. K., Bafila, A. S., & Singh, S. (2022, September). MeDiFakeD: Medical Deepfake Detection using Convolutional Reservoir Networks. In 2022 IEEE Global Conference on Computing, Power and Communication Technologies (GlobConPT) (pp. 1-6). IEEE. https://doi.org/10.1109/GlobConPT57482.2022.9938172
- Vajrobol, V., Shukla, U., Pundir, A., Singh, S., & Saxena, G. J. (2022). Depression detection in thai language posts based on attentive network models. In CEUR Workshop Proceedings. https://ceur-ws.org/Vol-3416/paper_3.pdf
- Shukla, U., Saxena, G. J., Kumar, M., Bafila, A. S., Pundir, A., & Singh, S. (2021). An Improved Decision Support System for Identification of Abnormal EEG Signals Using a 1D Convolutional Neural Network and Savitzky-Golay Filtering. IEEE Access, 9, 163492-163503. https://doi.org/10.1109/ACCESS.2021.3133326
- Budhiraja, R., Kumar, M., Das, M. K., Bafila, A. S., & Singh, S. (2021). A reservoir computing approach for forecasting and regenerating both dynamical and time-delay controlled financial system behavior. Plos one, 16(2), e0246737. https://doi.org/10.1371/journal.pone.0246737
- Birwal, A., Singh, S., Kanaujia, B. K., & Kumar, S. (2021). MIMO/diversity antenna with neutralization line for WLAN applications. MAPAN, 1-10. https://doi.org/10.1007/s12647-020-00427-9
- Birwal, A., Singh, S., Kanaujia, B. K., & Kumar, S. (2020). Low-profile 2.4/5.8 GHz MIMO/diversity antenna for WLAN applications. Journal of Electromagnetic Waves and Applications, 34(9), 1283-1299. https://doi.org/10.1080/09205071.2020.1757516
- Deveshwar, P., Sharma, S., Prusty, A., Sinha, N., Zargar, S. M., Karwal, D., Parashar, V., Singh S., & Tyagi, A. K. (2020). Analysis of rice nuclear-localized seed-expressed proteins and their database (RSNP-DB). Scientific Reports, 10(1), 15116. https://doi.org/10.1038/s41598-020-70713-8
- Birwal, A., Singh, S., Kanaujia, B. K., & Kumar, S. (2019). Broadband CPW-fed circularly polarized antenna for IoT-based navigation system. International Journal of Microwave and Wireless Technologies, 11(8), 835-843. https://doi.org/10.1017/S1759078719000461
- Birwal, A., Singh, S., & Kanaujia, B. K. (2020). Smart compact-folded microstrip antenna for GSM, LTE, and WLAN applications. In Smart Systems and IoT: Innovations in Computing: Proceeding of SSIC 2019 (pp. 475-481). Springer Singapore. https://doi.org/10.1007/978-981-13-8406-6_45

- Birwal, A., Singh, S., & Kanaujia, B. K. (2018, December). CPW-fed broadband slot antenna for GNSS and Wifi applications. In 2018 IEEE Indian Conference on Antennas and Propogation (InCAP) (pp. 1-4). IEEE. https://doi.org/10.1109/INCAP.2018.8770885
- Kumar, S., Kumar, M., Budhiraja, R., Das, M. K., & Singh, S. (2018). A cryptographic model for better information security. Journal of information security and applications, 43, 123-138. https://doi.org/10.1016/j.jisa.2018.10.011
- Kumar, M., Kumar, S., Das, M. K., Budhiraja, R., & Singh, S. (2018). Securing images with a diffusion mechanism based on Fractional Brownian Motion. Journal of information security and applications, 40, 134-144. https://doi.org/10.1016/j.jisa.2018.03.007
- Kumar, S., Kumar, M., Budhiraja, R., Das, M. K., & Singh, S. (2018). A secured cryptographic model using intertwining logistic map. Procedia computer science, 143, 804-811. https://doi.org/10.1016/j.procs.2018.10.386
- Kumar, M., Kumar, S., Budhiraja, R., Das, M. K., & Singh, S. (2017). A cryptographic model based on logistic map and a 3-D matrix. journal of information security and applications, 32, 47-58. https://doi.org/10.1016/j.jisa.2016.09.002
- Kumar, S., Kumar, M., Budhiraja, R., Das, M. K., & Singh, S. (2018, October). Investigation of coupled map lattice as a diffusion model for enhanced image security. In TENCON 2018-2018 IEEE Region 10 Conference (pp. 0172-0175). IEEE. https://doi.org/10.1109/TENCON.2018.8650305
- Kumar, M., Kumar, S., Budhiraja, R., Das, M. K., & Singh, S. (2018, October). Performance evaluation of a new shuffling cipher model with most used chaotic dynamical systems. In TENCON 2018-2018 IEEE Region 10 Conference (pp. 0167-0171). IEEE. https://doi.org/10.1109/TENCON.2018.8650471
- Kumar, S., Kumar, M., Das, M. K., Singh, S., & Budhiraja, R. (2017, October). Improved cryptographic model for better information security. In 2017 International conference on information and communication technology convergence (ICTC) (pp. 406-410). IEEE. https://doi.org/10.1109/ICTC.2017.8191013
- Kumar, M., Kumar, S., Das, M. K., Singh, S., & Budhiraja, R. (2017, October). Chaotic dynamical systems based image encryption model. In 2017 International conference on information and communication technology convergence (ICTC) (pp. 93-98). IEEE. https://doi.org/10.1109/ICTC.2017.8190949
- Kumar, M., Kumar, S., Budhiraja, R., Das, M. K., & Singh, S. (2016, March). Intertwining logistic map and Cellular Automata based color image encryption model. In 2016 International conference on computational techniques in information and communication technologies (ICCTICT) (pp. 618-623). IEEE. https://doi.org/10.1109/ICCTICT.2016.7514653
- Kumar, M., Kumar, S., Budhiraja, R., Das, M. K., & Singh, S. (2016, December). Lightweight data security model for IoT applications: a dynamic key approach. In 2016 IEEE international conference on internet of things (iThings) and IEEE green computing and communications (GreenCom) and IEEE cyber, physical and social computing (CPSCom) and IEEE smart data (SmartData) (pp. 424-428). IEEE. https://doi.org/10.1109/iThings-GreenCom-CPSCom-SmartData.2016.100

B. In Electronics

- Kumar, S., Kumari, V., Singh, S., Saxena, M., & Gupta, M. (2018). Sub-threshold drain current model of double gate RingFET (DG-RingFET) architecture: an analog and linearity performance investigation for RFIC design. IETE Technical Review, 35(2), 169-179. https://doi.org/10.1080/02564602.2016.1270174
- Kumar, S., Kumari, V., Singh, S., Saxena, M., & Gupta, M. (2015). Nanoscale-RingFET: an analytical drain current model including SCEs. IEEE Transactions on Electron Devices, 62(12), 3965-3972. https://doi.org/10.1109/TED.2015.2493578

- Ghawana, K., Singh, S., Sharma, V. K., Kapoor, A., & Tripathi, K. N. (1998). Dip-coated thin-film polycarbonate optical waveguides. Applied optics, 37(18), 4051-4053. https://doi.org/10.1364/AO.37.004051
- Singh, S., Kapoor, A., Misra, S. C. K., & Tripathi, K. N. (1996). Optimization of waveguide parameters of bisphenol A polycarbonate. Solid state communications, 100(7), 503-506. https://doi.org/10.1016/0038-1098(96)00431-0
- Misra, S. C. K., Chandra, S., Singh, S., & Tripathi, K. N. (1996). Electro-absorption and optical reflection studies on polypyrrole films. Indian journal of pure & applied physics, 34(11), 908-911.
- Verma, A. J., Sharma, S., Singh, S., Kapoor, A., & Tripathi, K. N. (1996). Fabrication and characterization of ZnO thin films by envelope and waveguide methods. Journal of optics, 27(1), 13. https://doi.org/10.1088/0150-536X/27/1/002

C. Chapter in Books

- Dron, J., Rajapillai, V., & Singh, S. (2003). Planning and developing cross-cultural collaboration in web-based ICT education. In Navigating innovations: Indo-European cross-cultural experiences (pp. 101-121). Indian Research Press. https://research.brighton.ac.uk/en/publications/planning-and-developing-cross-cultural-collaboration-in-web-based
- Pundir, I., Aggarwal, N., & Singh, S. (2023, March). Time-Series Based Prediction of Air Quality Index Using Various Machine Learning Models. In International Conference on Information Technology (pp. 61-70). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-99-5994-5_7
- Aggarwal, N., Shukla, U., Saxena, G. J., Kumar, M., Bafila, A. S., Singh, S., & Pundir, A. (2023). An Improved Technique for Risk Prediction of Polycystic Ovary Syndrome (PCOS) Using Feature Selection and Machine Learning. In Computational Intelligence: Select Proceedings of InCITe 2022 (pp. 597-606). Singapore: Springer Nature Singapore.

Invited Talks

- **"ERP for Higher Education",** Commonwealth of Open Learning, New Delhi, India, 13 January 2017.
- **"University Governance",** Two Day National workshop for university officers on University Governance (UGC funded), 29-30 March 2016, New Delhi.
- **"INNOVATIVE IDEAS, TECHNOLOGIES AND SERVICES",** NIFT Campus, Hauz Khas, 27 September 2014.
- **"ICT Innovation Ecosystem for Higher Education",** P-WiS'13, International Conference on Information Processing and Wireless System, Djerba, Tunisia during 21- 24 March, 2013.
- **"Challenges of Innovation Clusters in an Era of Economic Uncertainty"** Daejeon Convention Center, Korea, 19 September, 2012.
- **"Digital Archiving: A System Design Approach", International Conference on Digital Archiving"** Ambedkar University Delhi (AUD), 15 December 2012.
- **"ICT – Emerging Dimensions",** CPDHE Orientation Courses, 30 November 2012.
- **"Virtual Learning Environment ",** CPDHE Orientation Courses, 30 November 2012.
- **"Behavior Change Communication ",** CPDHE Orientation Courses, 30 October 2012.
- **"Emerging Technology in Teaching and Learning",** CPDHE Orientation Courses, 25 September 2012.
- **"Content Creation and Consolidation, International Conference on Open Learning"** Commonwealth of Open Learning, 31 January 2011, New Delhi, India**.**

- **"Virtual Learning Environment: Issues and Challenges in Higher Education Domain"** IEEE, Sousse, Tunisia, 06 July 2011.
- **"Large Scale Wireless Network in Higher Education",** Asia Pacific WiFi Conference, 06 July 2011, New Delhi, India.
- **"Content Creation and Consolidation, International Conference on Open Learning",** Commonwealth of Open Learning, New Delhi, India, 31 January 2011.
- **"Industry University Government: Awaited Innovation Network ",** Daedeok Innopolis, South Korea, 18 April 2011.
- **"Educational Technologies of the 21st Century: Possibilities and Challenges",** Institution of Electronics and Telecommunication Engineers (IETE) Apex Forum on E- education, 23 December 2011.
- **"ICT implementation in University System"** International workshop on ICT for Sustainable Development, University of Delhi South Campus**,** 30 November 2011, University of Delhi, South Campus, India.
- **"Quality Learning Environment for Higher Education",** Commonwealth of Open Learning, New Delhi, India, 19 January 2010.
- "***Virtual Learning Environment for Higher Education***", National Workshop on Quality Assurance through Blended Learning, 19-21 January 2010, New Delhi.
- "***Open Source Framework for ICT led learning***", National Seminar on Technology Enhanced Teaching and Learning, 24-26 September 2009, New Delhi.
- **"e-Learning Methodology ",** CPDHE Orientation Courses, 17 June 2009.
- **"Introduction to VLE-II ",** CPDHE Orientation Courses, 12 June 2009.
- **"Introduction to VLE-I ",** CPDHE Orientation Courses, 12 June 2009.
- **"Building online Assignments and Quizzes",** CPDHE Orientation Courses, 26 September 2008.
- **"Content Creation –II Content Design for a Course ",** CPDHE Orientation Courses, 26 September 2008.
- **"Learning Environments for Next Generation: Process Innovation",** IGNOU, 22 December 2008, India.
- **"Building Enterprise Learning Environment",** Moodlemoot, San Francisco, 11 March 2008, USA.
- **"Building a Course –II ",** CPDHE Orientation Courses, 25 September 2008.
- **"Content Creation – I Building a Course – I ",** CPDHE Orientation Courses, 25 September 2008.
- **"Lab Session",** CPDHE Orientation Courses, 16 September 2008.
- **"Linux, Mac ",** CPDHE Orientation Courses, 16 September 2008.
- **"Internet Basic & Open Source operating system & Applications ",** CPDHE Orientation Courses, 16 September 2008.
- **"Content Creation – Tools & Techniques ",** CPDHE Orientation Courses, 22 September 2008.
- **"Content Creation – Methodology",** CPDHE Orientation Courses, 21 September 2008.
- **"Role of Technology in Higher Education",** CPDHE Orientation Courses, 04 July 2008.
- **"ICT Based Teaching and Learning",** CPDHE Orientation Courses, 26 May 2008.
- **"ICT Framework in Higher Education",** CPDHE Orientation Courses, 23 March 2008.
- **"Computer Lab",** CPDHE Orientation Courses, 21 February 2008.
- **"e-Learning ",** CPDHE Orientation Courses, 16 March 2008.
- **"Role of ICT in Higher Education",** CPDHE Orientation Courses, 11 February 2008.
- **"Using Technology in the University ",** CPDHE Orientation Courses, 18 February 2008.
- **"e-Learning Technologies",** CPDHE Orientation Courses, 28 January 2008.
- **"Science and Technology Parks: Sustainable growth for academia and industry",** ICIC, Daedeok Innopolis, International Conference on innovation cluster. South Korea, May 19-20, 2008.

- "**Science and Technology Parks: Sustainable growth for academia and industry**", **ICIC, Daedeok Innopolis,** International Conference on innovation cluster. **South Korea,** May 19-20, 2008.
- **"Relevance of Open Source Technology in Higher Education",** CPDHE Orientation Courses, 27 September 2007.
- **"University-Industry-Govt: A Network of Innovations",** CPDHE Orientation Courses, 02 September 2007.
- "***ERP for Higher Education***", Knowledge Commission meeting, New Delhi, January 13, 2007.
- **"Building Knowledge Repositories: Cross Sectoral Collaboration"** International conference in India on cross sectoral collaboration for building knowledge repositories, 8-10 February 2006.
- ***"Open Source Framework for Universities",*** Linux Asia 2006.
- **"Asia's open source conference and expo"**, 8-10 February 2006, India Habitat Centre, New Delhi India.
- "***E-Learning: Emerging Indian Market***", National Seminar on E-Learning, PHD House, New Delhi, 2002.
- "***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.
- "***Optimization of Web Search Engines for Academic Community***", Workshop-cum-Symposium on Information Technology for Social Science", CRRID, Chandigarh, February 22. 2001.
- **"Open Educational Resources ",** CPDHE Orientation Courses, 27 January 2001.
- **"Networking Technologies in University Scenario's: Design Approach to Campus Network "** International Seminar on Emerging Trends in Networking Technologies University of Delhi South Campus, 5 November 2001.
- **"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, 16 December 2001.

Important Open Source / Web Development and Deployment

- 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.
- 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).
- Design and development of the ***University of Delhi South Campus web portal (http://www.south.du.ac.in***), 2003.
- 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.
- 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).

Achievement/Awards

Digital India Award of Excellence in Digital Governance Initiatives j*ury*, 2018, Govt. of India.