

CURRICULUM VITAE

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Date of Birth: September 9th, 1973

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Current Position

Associate Professor, Department of Electrical Engineering, Indian Institute of Technology Kanpur, Kanpur - 208016, India.

Academics and Research Qualifications

Ph.D., Electrical Engineering, Indian Institute of Technology, Delhi, New Delhi, 110016, India, 2003-2007.

Professional / Research Experience

Associate Professor

Department of Electrical Engineering, Indian Institute of Technology Kanpur, Kanpur-208016, India (June 2014- Present).

Assistant Professor

Department of Electrical Engineering, Indian Institute of Technology Kanpur, Kanpur-208016, India (March 2009 – May 2014).

Visiting Faculty

Center for Integrative and Translational Genomics, University of Tennessee Health Science Center, Memphis, TN 38163 USA (June 2010- July 2010).

Post-Doctoral Research Fellow

Center for Integrative and Translational Genomics, University of Tennessee, Memphis, TN 38163 USA (Sep. 2008 – Mar. 2009).

Post-Doctoral Research Associate

Department of Computer Science, Louisiana Tech University, Ruston, LA 71270 USA (Jan. 2008 – Sep. 2008).

Research Assistant

Department of Electrical Engineering, Indian Institute of Technology Delhi, New Delhi, India (Jul. 2003 – Dec. 2006).

Teaching Assistant

Department of Electrical Engineering, Indian Institute of Technology Roorkee, Roorkee, India (Jul. 2001 – Dec. 2003).

Engineer (Electrical)

Central India Machinery Manufacturing Company (CIMMCO) BIRLA Limited, Bharatpur, Rajasthan, India (1996 – 2000).

Research Interests

1. Big Data, Big Data Analysis
2. Data Analytics, Data Mining
3. Bioinformatics
4. Intelligent Data Mining Algorithms and Applications
5. Inventory Management
6. Computer Vision and Image Processing
7. Image frame generation
8. Cognitive Science

9. Brain Computer/Machine Interface
10. Machine intelligence
11. Intelligent Informatics
12. Smart Grid
13. Intelligent Fault Diagnosis Systems
14. Prognosis and Health Management
15. Soft-Computing in Modelling and Control
16. Internet of Things/ Cyber Physical Systems
17. Intelligent Agents and their Applications
18. Fuzzy Logic, Controllers
19. Deep Learning of Neural and Fuzzy Networks
20. Machine Learning Algorithms
21. Computational Intelligence
22. Unmanned Guided Vehicles (UGVs)

Teaching

Courses Undertaken

- **EE658** Fuzzy Sets, Logic & Systems and Applications
- **EE617A** Industrial Automation & Control
- **EE210/EE203A** Introduction to Electrical Engineering
- **EE698Y** Industrial Instrumentation for Process Control
- **EE680** Intelligent Instrumentation
- **EE698B** Intelligent Informatics

- **EE671** Neural Networks
- **ESO210** Introduction to Electrical Engineering
- **EE455** Transducers and Instrumentation

New Courses Designed

- **EE659** Computational Intelligence for Machine Vision, Automation and Control
- **EE698B** Intelligent Informatics in Electrical Engineering
- **EE617A** Industrial Automation and Control

Supervision of Bachelor's/Master's thesis

Master of Technology

1. Ms. Payal Gupta (Thesis defended, 2010)
2. Mr. Saurabh Agrawal (Thesis defended, 2010)
3. Ms. Sheela Meena (Thesis defended, 2010)
4. Mr. Prateek Tamrakar (Thesis defended, 2010)
5. Mr. Neeraj Kumar Soni (Thesis defended, 2011)
6. Ms. Isha Kapoor (Thesis defended, 2012)
7. Ms. Shimaila Hai (Thesis defended, 2012)
8. Mr. Bhuwan Mehta (Thesis defended, 2012)
9. Mr. Sumit Sarkar (Thesis defended, 2012)
10. Mr. Tarun Maini (Thesis defended, 2012)
11. Mr. Cherukupally Chakradhar (Thesis defended, 2012)
12. Mr. Ashish Kaushal (Thesis defended, 2013)
13. Ms. Sreevidya Khatravath (Thesis defended, 2013)

14. Ms. Shikha Singh (Thesis defended, 2013)
15. Ms. Priyanka Sahu (Thesis defended, 2013)
16. Ms. Amrita Tirkey (Thesis defended, 2014)
17. Mr. Prabhankar Porwal (Thesis defended, 2014)
18. Ms. Sakshi Goel (Thesis defended, 2014)
19. Mr. Harshavardhan Annepu (Thesis defended, 2014)
20. Mr. Akhilesh Raj (Thesis defended, 2016)
21. Mr. Aquib Mustafa (Thesis defended, 2016)
22. Ms. Teena Sharma (Thesis defended, 2016)
23. Ms. Ocean Yadav (Thesis defended, 2016)
24. Mr. Piyush Sahoo (Thesis defended, 2017)
25. Mr. Gaurav Saraswat (In Progress)
26. Mr. Bhanu Teja Nalla (In Progress)
27. Mr. Vooradi Vineeth (In Progress)
28. Mr. Bharat Gupta (In Progress)
29. Mr. Akash Banerjee (In Progress)

Master of Science Research

1. Mr. Dhanjeet (In Progress)
2. Mr. Seetaram Maurya (In Progress)
3. Mr. Sreedhar Kumar D. Rajurkar (In Progress)
4. Mr. Aniket Kar (Thesis defended, 2018)

Edison Engineer, @GE Transportation, JFWTC, Bangalore

5. Mr. Raghav Dev (In Progress)

6. Mr. Ashish Gupta (In Progress)

Ph.D. Supervision

1. Dr. Ashutosh Dwivedi (Thesis defended, 2012)

IIT Jodhpur, India

2. Dr. Narendra Kohli (Thesis defended, 2012)

Professor & Head, Dept. of CSE, HBTU Kanpur, India

3. Dr. Rajeev Shakya (Thesis defended, 2014)

Assistant Professor, Galgotias University UP, India

4. Dr. Rajeev Tripathi (Thesis defended, 2013)

Assistant Professor, NIT Delhi, India

5. Dr. Bibhu Prasad Padhy (Thesis defended, 2015)

Assistant Professor, IIT Ropar, India

6. Dr. Rahul Kumar Sevakula (Thesis defended, 2017)

Data Scientist, IBM, India

7. Ms. Padmini Singh (In Progress)

8. Mr. Vibhu Tripathi (In Progress)

9. Mr. Narendra Kumar Dhar (In Progress)

10. Ms. Sonal Dixit (In progress)

11. Mr. H. L. Maurya (In Progress)

12. Mr. Vikas Singh (In Progress)

13. Ms. Teena Sharma (In Progress)

14. Mr. Pankaj Kumar Mishra (In Progress)

15. Mr. Mohd. Aqib (In Progress)
16. Mr. J. Balaji (In Progress)
17. Mr. Mayank Pandey (In Progress)
18. Mr. Arun K. Sharma (In Progress)

Knowledge Dissemination

Book Chapters:

- Vikas Singh and **Nishchal K. Verma**, “Deep learning architecture for high-level feature generation using stacked auto encoder for business intelligence,” Complex systems: solutions and challenges in economics, management and engineering, Springer International Publishing, 2017. (Accepted)
- R. Kiran, P. Sircar and **Nishchal K. Verma**, “Soft Computing Approaches for Two-Dimensional Beamforming,” Recent Developments and New Direction in Soft-Computing Foundations and Applications, Springer International Publishing, pp. 301-314, 2016.

Patent:

- **Nishchal K. Verma**, R. K. Sevakula and R. Thirukovalluru, “Algorithms for consistent pattern recognition using graphical indices,” 2016. (Filed)

Development

New Technology Developed:

- *Automatic Guided Vehicle*
Developed automated guided vehicle which can perform multiple operations namely object recognition, optimal path tracking, vision based path following and obstacle avoidance. It is mainly used in manufacturing industries for raw material handling, pallet handling, finished product handling, trailer loading and roll handling.
- *Inventory Management*

Inventory Management facility has been set up under the project BOEING/EE/20100220. It provides a user friendly environment for managing the inventory/stock by counting the available number of objects by automatic notification through email.

- *Intelligent CBM using Windows Phone, Tablets and Smartphones*

Smartphone based Intelligent Condition Based Monitoring System is developed at IIT Kanpur under the project BOEING/EE/20100220. It can be used for detection of various faults in industrial reciprocating air compressors. This technology has been presented at Seattle USA and successfully demonstrated to BOEING team at IIT Kanpur.

- *Sensitive Position finder for Data Acquisition System*

Sensitive position finder is developed at IIT Kanpur under the project BOEING/EE/20100220. It is a ranking based system that detects the most sensitive position around the machine for positioning a sensor.

- *Future Image Frame Generator*

Future image frame generator is developed at IIT Kanpur under the project DST/EE/20100272. It is a predictor based system that generates the future images based on past image sequence as input to the system.

- *MTBA: MATLAB Toolbox for Biclustering Analysis*

MATLAB toolbox designed to perform a variety of biclustering algorithms under a common user interface. Biclustering is a popular approach to analyze patterns in a dataset, especially those of biological origin such as gene expression data. Toolbox includes functionalities of data handling, preprocessing, biclustering and visualization.

- *BIDEAL: MATLAB Toolbox for Bi-clustering Pattern Analysis*

Software Developed:

- MATLAB Toolbox on Biclustering (<http://iitk.ac.in/iil/mtba/>)
- BIDEAL Toolbox on Biclustering
- Desktop Application for Sensitive Position Finding
- Condition Based Monitoring using Smartphones/Windows Phone

- Desktop Application for Inventory Management

Sponsored and Consultancy Projects

- 1) Complex defence object recognition and autonomous handling in unstructured and noisy outdoor environment, *DRDO, Ministry of Defense, Govt. of India (Project Investigator) (Since 2018)*
- 2) CBM of Air Compressors and Motors, *The BOEING Company, USA (Project Investigator) (2009-17)*
- 3) Development of Fuzzy Rule based Gaussian Regression Model for Generating Future Images, *DST, Govt. of India (Project Investigator) (2010-14)*
- 4) Computational Intelligence: Theories Applications and Future Directions, *DST, Govt. of India (Project Investigator) (2015-16)*
- 5) Computational Intelligence: Theories Applications and Future Directions, *DST, Govt. of India (Project Investigator) (2013-14)*
- 6) Passive and Active RFID and Location Technology Research, *The BOEING Company, USA (Co-Project Investigator) (2009-17)*
- 7) Prediction for Visual Surveillance using static camera, *DRDO, Ministry of Defense, Govt. of India (Project Investigator) (2011-15)*
- 8) Instruments for monitoring of the Health Monitoring of Automotive, *DST, Govt. of India (Project Investigator) (2009-2010)*
- 9) Spatiotemporal Data Based Fuzzy Video Model for Future Image Frame Generation, *IIT Kanpur, India (Project Investigator) (2009-2010)*
- 10) Transducers and Instrumentation Virtual Laboratory, *Ministry of HRD, Govt. of India (Project Investigator) (2010-16)*
- 11) Intelligent Visual Control of Redundant Manipulator Systems for Grasping 3-D Objects, *DST, Govt. of India (Co-Project Investigator) (2010-13)*
- 12) Setting up Real Time Simulation Facility for Advanced Research in Power and Control, *DST, Govt. of India (Co-Project Investigator) (2010-15)*

- 13) Path Tracking Control of Four Wheel Drive Four Wheel Steer Electric Vehicle, *DST, Govt. of India (Co-Project Investigator) (2011-16)*
- 14) Development of Personalized and performance based e-learning tool for existing e-resources, *MCIT, Govt. of India (Co-Project Investigator) (2013)*
- 15) Development of Small Sized Fixed Wing Unmanned Aerial System, *IIT Kanpur, India (Co-Project Investigator) (2014-16)*
- 16) Design and Development of Visually Guided Autonomous Quadrotors: Application in Surveillance and Disaster Management, *IIT Kanpur, India (Co-Project Investigator) (2014-15)*

Peer Recognition

Awards/Appreciations

- SFTIG Award of CAD\$6000 for Shastri Faculty Training and Internationalization Program (2017-18)
- Achiever award from Institution of Engineers (India) at Jodhpur on Engineers day (Sept. 15th, 2017)
- Best Paper Presentation Award from IEEE International Conference on Control and Robotics Engineering (ICCRE), Thailand (2017)
- Distinguished Researcher in the Area of Computational Intelligence Award from IEEE UP Section CIS Chapter (2016)
- Award of \$5000 for conducting IEEE CIS Winter School from IEEE Computational Intelligence (2015)
- Best Poster Award from IEEE Bombay Section Symposium (2015)
- “Devendra Shukla Young Faculty Research Fellowship” from IIT Kanpur (2013-16)
- DST Travel Award for attending FUZZ-IEEE at USA (2005)
- IEEE CIS travel award US\$ 700 for attending and presenting paper in FUZZ-IEEE 2005 at Reno USA (2005)

- Secured highest rank in M. Tech. (Measurement and Instrumentation) at IIT Roorkee (2003)
- National Merit Scholarship (1989-1996)

Contributions to the institute

Administrative Responsibilities:

- **Warden-in-Charge**, Hall-VI (GH Tower A, B, C and D Blocks), IIT Kanpur (Since Sept. 2017)
- **Convener**, Department Post Graduate Committee, Electrical Engineering, IIT Kanpur (Oct. 2014- Aug 2015)
- **Coordinator**, Control and Automation Group, IIT Kanpur
- **Warden-in-Charge**, Hall-VI (GH Tower and New RA GH), IIT Kanpur (Sept. 2013-Sept. 2016)
- **Warden-in-Charge**, Hall-VI (Girls' Hostel-2 and NSBRA A & Z blocks), IIT Kanpur (Sept. 2010- Sept. 2013)
- **Chairman**, DCF Committee, IIT Kanpur (2012)
- **Member**, Web development Committee, EE Dept., IIT Kanpur
- **Convener**, Electrical Engineering Society, IIT Kanpur (2009-2011)
- **Member**, DPGC Committee, IIT Kanpur (2009-2010)
- **Member**, CARE, Committee, IIT Kanpur (2010)
- **Member**, Hall Automation Committee, IIT Kanpur (2013)
- **Member**, Faculty Apartment Residents Welfare Group, IIT Kanpur

Research Workshops Conducted

- **Program Chair**, 2018 International Conference on Sensing, Diagnostics, Prognostics, and Control, Xi'an, China

- **General Chair**, 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions, IIT Kanpur, Dec. 06-08, 2017
- **General Chair**, IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions, IIT Kanpur, Dec. 14-17, 2015
- **Coordinator**, IEEE CIS Winter School on Computational Intelligence, IIT Kanpur, Dec. 14-16, 2015
- **General Chair**, IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions, IIT Kanpur, July 14, 2013
- **Coordinator**, QIP Short term course on Intelligent Informatics in Electrical Engineering, IIT Kanpur, July 2013
- **Coordinator**, QIP Short term course on Intelligent Informatics, IIT Kanpur, 2012
- Transducers and Instrumentation Virtual Laboratory (Sponsored by MHRD) at IIT Kanpur, Feb 4, 2012
- Brainstorming on Health Monitoring of Automotive (Sponsored by DST) at IIT Kanpur, March 9-10, 2010
- Transducers and Instrumentation Virtual Laboratory (Sponsored by MHRD) at IIT Kanpur, Dec 7, 2012

New Laboratory/Facility Developed:

- ***Transducers and Instrumentation Virtual Laboratory (202.3.77.143/virtuallab/)***
Transducers and Instrumentation virtual laboratory is developed under the project MHRD/EE/20100082 at IIT Kanpur. This Lab caters mainly to students of UG level for conducting the experiments online and offline to have a feel of working of various transducers and related instruments.
- ***Brain Computer Interface Laboratory***
Brain Computer interface is a direct communication modality between brain and external environment that bypasses the usual peripheral pathways. In Intelligent Informatics the Brain Computer Interface Laboratory, we have the emotiv epoc, a 14-channel high-resolution wireless EEG system. The System consists of active sensors that tune into electrical signals produced by the brain to detect user thoughts,

feelings, and expressions. System is capable of capturing raw EEG, affective responses, as well as evoked potentials. The aim of our BCI lab is to study EEGs of people when subjected to external visual stimulations.

- ***Acoustic and Vibration Data Acquisition Facility***

Intelligent Condition Based Health Monitoring of Air Compressors system has been Set Up under the project the project BOEING/EE/20100220 which consists of four sets of single stage and double stage compressors and two acoustic and accelerometer based data acquisition system.

Contributions outside the institute

Invited Research Talks/Keynote/Lectures/Discussions:

- **Expert Lecture:** “Fuzzy Logic and Deep Learning”, Faculty Development Program (FDP) on Machine Learning and Applications (MLA-2018), ABV-IIITM Gwalior during March 26-30, 2018
- **Tutorial:** “Data Driven Models for Condition based Monitoring of Machines”, 2018 IEEE International Conference on Prognostics and Health Management, Seattle, WA, USA, 2018
- **Panel Session Moderator & Speaker:** “Deep Learning in Prognostic and Health Management”, 2018 IEEE International Conference on Prognostics and Health Management, Seattle, WA, USA, 2018
- **Invited Lecture:** “Deep Learning and Deep Fuzzy Networks”, Workshop on Swarm and Evolutionary Algorithms: Theory and Applications, IIT Roorkee on March 18th, 2018
- **Keynote Speech:** “Deep Learning and Computational Intelligence”, Amity University, Lucknow on March 15th, 2018
- **Invited Lecture:** “Deep Learning with Fuzzy Systems”, IET Lucknow on March 13th, 2018

- **Keynote Speech:** “Deep Fuzzy Networks in Condition based Monitoring”, International Conference on Signals, Machines and Automation (SIGMA 2018) at NSIT Delhi on February 24th, 2018
- **Invited Lecture:** “Deep Learning and Fuzzy Systems”, Faculty Development Program at NIT Kurukshetra on January 13th and 14th, 2018
- **Invited Lecture:** “Deep Learning and Fuzzy Deep Networks”, Faculty Development Program at Banasthali Vidyapith, Rajasthan on December 26th, 2017
- **Keynote Speech:** “Deep Learning and Fuzzy Deep Networks”, SocPros 2017 at IIT Bhubaneswar on December 23rd, 2017
- **Keynote Speech:** “Deep Learning and Fuzzy Deep Networks”, 17th International Conference on Intelligent Systems Design and Applications (ISDA) at South Asian University on December 14th, 2017
- **Plenary Speech:** “Deep Learning and Computational Intelligence”, In *6th IEEE International Conference on Computer Applications in Electrical Engineering - Recent Advances (CERA 17)* at Indian Institute of Technology Roorkee on October 6th, 2017
- Malaviya National Institute of Technology (MNIT), Jaipur (Invited Lecture) on August 1st, 2017: *Deep Learning and Computational Intelligence*
- International Conference on Advances in Internet of Things and Connected Technologies (ICIoTCT 2017) May 26-27, 2017 at Malviya National Institute of Technology (MNIT), Jaipur, India (Keynote Speech)
- International Conference on Intelligent Systems and Signal Processing (ISSP-2017), 24th - 25th March, 2017 (Keynote Speech)
- National Institute of Technology (NIT) Silchar (Invited Lecture)
- Indian Institute of Technology, Varanasi (IIT-BHU) (Invited Lecture)
- IEEE World Forum on Internet of Things, 12-14 December 2016 // RESTON, VA, USA (As Speaker and Panelist)

- 2016 IEEE International Conference on Prognostics and Health Management, 20 Jun, 2016, Carleton University Ottawa, ON, Canada (Keynote Speech)
- Institute of Engineering and Technology, Lucknow (Invited Lecture)
- Johndeere, Pune (Invited Lecture)
- AIT, New Delhi (Invited Lecture)
- SYBASE, Dublin, San Francisco, USA (Invited Lecture)
- Market Toppers, Gurgaon (Invited Lecture)
- University of Chicago, Chicago, USA (Invited Lecture)
- 4th World Conference on Soft Computing, May 25-27, 2014, University of Berkeley, Berkeley, San Francisco, USA (Invited Lecture)
- Hangzhou Dianzi University, Hangzhou, China (Invited Lecture)
- Center for Integrative and Translational Genomics, University of Tennessee, Memphis, USA (Invited Lecture)
- Boeing Company, St Louis, USA (Invited Lecture)
- Boeing Company, Everett, Seattle, WA, USA (Invited Lecture)
- Boeing Company, Lynwood, Seattle, WA, USA (Invited Lecture)
- Raman Research Institute, Bangalore (Invited Lecture)
- Saint Xavier's Catholic college of Engineering, Nagercoil (Invited Lecture)
- IIT Rajasthan, Jodhpur (NEM BOEING, IITR and IITK initiative) (Invited Lecture)
- California State University, Dominguez Hills Carson, CA, USA (Invited Lecture)
- Indo-German Workshop on Engineering and Analysis of Evolutionary Algorithms at DEI Dayalbagh, Agra on Jan 18, 2013 (Invited Lecture)
- IIITDM Jabalpur on March 9, 2013 (Invited Lecture)
- Banasthali Vidyapeeth, Tonk, Jaipur on March 14, 2013 (Invited Lecture)

- Huawei Technologies Pvt. Limited, Bangalore on March 25, 2013 (Invited Lecture)
- SKF Technologies India Pvt. Limited, Bangalore on Dec. 22.2014 (Invited Lecture)

Research Associations and Activities:

- Technical Program Committee, 2018 IEEE International Conference on Prognostics and Health Management, Seattle, WA, USA
- Program Chair, 2018 International Conference on Sensing, Diagnostics, Prognostics, and Control, Xi'an, China
- Conference Chair, 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions, IIT Kanpur, India
- Chairman, PDR Committee, Design & Development of Technology Demonstrator Model for Smart Generator Control & Protection Unit (SGCPU) for airborne application, 2017.
- Program Chair, 2017 International Conference on Sensing, Diagnostics, Prognostics, and Control, Shanghai, China
- Member, International Electrotechnical Commission, Systems Evaluation Group (IEC-SEG4)
- Member, P7000 Working Group, IEEE Standards Association (IEEE-SA)
- Fellow, IETE
- Senior Member, IEEE
- Organizer, IEEE Uttar Pradesh Section Computational Intelligence Society Chapter (2013)
- Chairperson, IEEE Uttar Pradesh Section Computational Intelligence Society Chapter (Since 2013)
- Member, IEEE Computational Intelligence Society
- Member, IEEE Communications Society
- Member, IEEE Industrial Electronics Society

- Member, IEEE Sensors Council
- Member, IEEE Technology Management Council
- Member, Executive committee, IEEE UP Section
- Convener, Educational Activities Committee, IEEE UP Section (2011-12)
- Reviewer, IEEE Trans. on Fuzzy Systems
- Reviewer, IEEE Trans. on Systems Man and Cybernetics Part-A, B and C.
- Reviewer, IEEE Trans. on Geoscience and Remote Sensing
- Reviewer, IEEE Trans. on Knowledge and Data Engineering
- Reviewer, IEEE Trans. on Pattern Analysis and Machine Intelligence
- Reviewer, Fuzzy Sets and Systems
- Reviewer, Pattern Recognition
- Reviewer, Applied Soft Computing
- Reviewer, Defense Science Journal
- Regular Reviewer, few more reputed IEEE and non-IEEE Journals and conferences
- Chairman, Review committee for Design and Dev. of Interface Unit for FCG probes for Light Combat Helicopter (LCH), HAL Lucknow
- Treasurer, IEEE UP Section (2012-13)
- Publicity Chair, 2013 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE-2013) July 07-10, 2013, Hyderabad, India
- Publicity Chair, Special Session on Soft Computing Techniques for Biometric Technologies, The 12th International Conference on Artificial Intelligence and Soft Computing (ICAISC 2013) June 09 – 13, 2013, Zakopane, Poland
- General Chair, IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions July 14, 2013, IIT Kanpur

- General Chair, IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions, Dec 15-17, 2015, IIT Kanpur
- Coordinator, CIS Winter School, Dec 14-16, 2015, IIT Kanpur
- Program Committee Member, IEEE PHM 2016
- Program Committee Member, IEEE PHM 2017
- Finance and Registration Chair, 3rd International Conference Advances in Control and Optimization of Dynamical Systems March 13-14, 2014, IIT Kanpur
- Program Chair, IEEE Computational Intelligence Workshop (CIW-2014), Oct 13-15, 2014, IIT Allahabad
- Panel Member, IEEE World Forum on Internet of Things, 12-14 DECEMBER 2016 // RESTON, VA, USA

Editorial Board (Journals/ Conferences)

- **Editor**, IETE Technical Review Journal, India (2014-17)
- **Associate Editor**, IEEE Computational Intelligence Magazine (2016 and 2017)
- **Associate Editor**, Transactions of the Institute of Measurement and Control, UK. (Since 2014)
- **Associate Editor**, International Journal of Advances in Intelligent Informatics (Since 2016)
- **Associate Editor**, Electrical & Electronic Technology, Open Access Journal (Since 2017)
- **Guest Editor**, Special issue on “Recent Advances in Computational Intelligence” of International Journal of Computational Systems Engineering, Inderscience Publishers (Since 2017)
- **Guest Editor**, Special issue on “Computational Intelligence” of International Journal of Swarm Intelligence, Inderscience Publishers (Since 2017)

- **Guest Editor**, Special issue on “Computational Intelligence: Theories, Applications and Future Directions” of International Journal of Artificial Intelligence and Soft Computing, Inderscience Publishers (Since 2017)
- **Guest Editor**, Special issue on “Intelligent Informatics” for International Journal of Computational Vision and Robotics, vol. 4, no. 4. (2014)

Publications

Peer Reviewed Journals/Transactions

- [46] Rahul K. Sevakula, Vikas Singh, **Nishchal K. Verma**, Chandan Kumar and Yan Cui, “Transfer Learning for Molecular Cancer Classification using Deep Neural Networks,” IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2018. (Accepted)
- [45] Vikas Singh, Raghav Dev, Narendra K Dhar, Pooja Agrawal and **Nishchal K. Verma**, “Adaptive Type-2 Fuzzy Approach for Filtering Salt and Pepper Noise in Grayscale Images,” IEEE Transactions on Fuzzy Systems, 2018. (Accepted for Publication)
- [44] Dhan Jeet Singh, Pooja Agrawal, **Nishchal K. Verma**, A. K. Ghosh and Appasaheb Malagaudanavar, “Interval type-2 TS fuzzy model for angle of attack sensor of the aircraft,” Journal of Intelligent and Fuzzy Systems, 2017. (Accepted for Publication)
- [43] Shreedharkumar Rajurkar, Vikas Singh, **Nishchal K. Verma and** Yan Cui, “Deep stacked auto-encoder with deep fuzzy network for transcriptome based tumor type classification,” BMC Bioinformatics, vol. 18, 2017.
- [42] Rahul K. Sevakula, and **Nishchal K. Verma**, “Compounding General Purpose Membership Functions for Fuzzy Support Vector Machine in Noisy Environment,” IEEE Transactions on Fuzzy Systems, vol. 25, no.6, pp. 1446-1459, 2017.
- [41] **Nishchal K. Verma**, Rahul K. Sevakula, and Raghuv eer Thirukovalluru, “Pattern analysis framework with Graphical Indices for Condition based monitoring,” IEEE Transactions on Reliability, vol. 66, no. 4, pp .1085-1100, 2017.
- [40] N. K. Dhar, **Nishchal K. Verma**, and L. Behera, “Adaptive Critic based Event-Triggered Control for HVAC system,” IEEE Trans. Industrial Informatics, vol. 14, no. 1, pp.178-188, 2018.

- [39] Agnihotri, Rajesh, A. P. Dimri, H. M. Joshi, **Nishchal K. Verma**, C. Sharma, J. Singh, and Y. P. Sundriyal, "Assessing operative natural and anthropogenic forcing factors from long-term climate time series of Uttarakhand (India) in the backdrop of recurring extreme rainfall events over northwest Himalaya," Elsevier, Journal of Geomorphology, vol. 284, pp. 31-40, 2017.
- [38] Narendra Dhar, **Nishchal K. Verma**, L Behera and M M Jamshidi, "On an Integrated Approach to Networked Climate Control of a Smart Home," IEEE Systems Journal, pp. 1-12, 2016.
- [37] P. Agrawal, T. Sharma, and **Nishchal K. Verma**, "Supervised Approach for Object Identification using Speeded Up Robust Features," International Journal of Advanced Intelligence Paradigms (IJAIP), 2017. (Accepted for publication)
- [36] R. K. Sevakula and **Nishchal K. Verma**, "Assessing Generalization Ability of Majority Vote Point Classifiers," IEEE Trans. on Neural Networks and Learning Systems, vol. 28, no. 12, pp. 2985-2997, 2017.
- [35] R. K. Sevakula, R. Thirukovalluru and **Nishchal K. Verma** and Y. Cui, "Deep neural networks for transcriptome based cancer classification," BMC Bioinformatics. (Accepted for publication)
- [34] B. P. Padhy, S. C. Srivastava and **Nishchal K. Verma**, "A Wide-Area Damping Controller Considering Network Input & Output Delays and Packet Drop," IEEE Trans. on Power Systems, vol. 32, no. 1, pp. 166-176, 2017.
- [33] **Nishchal K. Verma**, E. Dutta and Y. Cui, "Assessing the Quality of Biclusters using Fuzzy Biclustering Index," International Journal of Data Mining and Bioinformatics, vol. 15, no. 4, pp. 291-311, 2016.
- [32] **Nishchal K. Verma**, R. K. Sevakula, S. Dixit and A. Salour, "Intelligent Condition Based Monitoring using Acoustic Signals for Air Compressors," IEEE Trans. on Reliability, vol. 65, no. 1, pp. 291-309, 2016.
- [31] **Nishchal K. Verma**, R. K. Sevakula, S. Dixit and A. Salour, "Data Driven Approach for Drill Bit Monitoring," IEEE Reliability Magazine, pp. 19-26, Feb. 2015.

- [30] **Nishchal K. Verma**, R. K. Sevakula, S. Dixit, A. Salour, "Ranking of Sensitive Positions Using Statistical and Correlational Analysis," *International Journal on Smart Sensing and Intelligent Systems*, vol.6, No. 4, pp.1745-1762, 2013.
- [29] **Nishchal K. Verma**, S. Singh, J. K. Gupta, R. K. Sevakula, S. Dixit, A. Salour, "Smartphone Application for Fault Recognition," *International Journal on Smart Sensing and Intelligent Systems*, vol. 6, no. 4, pp.1763-1782, 2013.
- [28] **Nishchal K. Verma** and Shikha Singh, "Image sequence prediction using ANN and RBFNN with selected features," *International Journal of Image and Graphics*, vol. 13, no. 2, Jul. 2013.
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