Nitin Auluck

Professor, Department of Computer Science & Engineering, Room 114, S. Ramanujan Block
Indian Institute of Technology Ropar (main campus), Rupnagar, Punjab 140001 India
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Research

- Parallel and distributed computing, fog/edge computing, scheduling.

Education

- **University of Cincinnati, USA**
  Ph.D. in Computer Science and Engineering, March 2005, CGPA 3.89/4.

- **Poojya Doddappa Appa College of Engineering, Gulbarga University**
  B.E. in Electrical and Electronics Engineering, 1998, Percentage: 81%.

Work experience

- Professor, Department of Computer Science and Engineering, Indian Institute of Technology, Ropar, August 2024 - present.
- Associate Professor, Department of Computer Science and Engineering, Indian Institute of Technology, Ropar, December 2015 to August 2024. .
- Assistant Professor, Department of Computer Science and Engineering, Indian Institute of Technology, Ropar, June 2010 to November 2015.
- Assistant Professor, Department of Computer Science, Quincy University, Quincy, Illinois, USA, August 2004 to May 2010.
- Research Assistant, Centre for Distributed and Mobile Computing, University of Cincinnati, Cincinnati, Ohio, USA, July 2000 to July 2004, supervisor: Dr. Dharma P. Agrawal.

Graduated students (MS and PhD)

- Jagpreet Singh (PhD, 2015), currently an Assistant Professor, Indian Institute of Technology, Ropar, Punjab.
- Kaneez Fizza (MS, 2019), currently a postdoctoral scholar at Deakin University, Australia.
- Anil Singh (PhD, 2021), currently a postdoctoral scholar at Umea University, Sweden.
- Amanjot Kaur (PhD, 2023), currently postdoctoral scholar at Cardiff University, Cardiff, UK.
- Mansi Sahi (PhD, 2024).
- Ashish Kumar Kaushal (PhD, 2024).

Postdoctoral associates

- Tarunpreet Kaur, 2021 - 2023.

Current students (PhD)

- Pooja Bhardwaj (PhD).
- Amit Sharma (PhD).

- Jatin Sachan (PhD)

Journal publications

- A. Kaushal, O. Almurshed, A. Muftah, **N. Auluck**, and O. Rana, "ToSiM-IoT: Towards a Sustainable Optimisation of Machine Learning Tasks in Internet of Things", IEEE Internet of Things Journal, 2025.
- O. Almurshed, A. Kaushal, S. Meshoul, A. Muftah, O. Almoghamis, I. Petri, **N. Auluck**, and O. Rana, "Enhancing Performance of Machine Learning Tasks on Edge-Cloud Infrastructures: A Cross-Domain Internet of Things based Framework", Future Generation Computer Systems (FGCS), ScienceDirect, 2024.
- A. Kaushal, O. Almurshed, O. Almoghamis, A. Alabbas, **N. Auluck**, B. Veeravalli, and O. Rana, "SHIELD: A Secure Heuristic Integrated Environment for Load Distribution in Rural-AI", Future Generation Computer Systems (FGCS), ScienceDirect, 2024.
- R. Ganesan, T. Kaur, A. Mittal, M. Sahi, S. Konar, T. Samra, G. D. Puri, S. K. S. Thingnum, and **N. Auluck**, "Application of concept Drift Detection and Adaptive Framework for Non-Linear Time Series Data from Cardiac Surgery", Computational Intelligence, Wiley, 2024.
- M. Sahi, **N. Auluck**, A. Azim, and Md. Al-Maruf, "Dynamic Hierarchical Intrusion Detection task offloading in IoT Edge Networks", Software: Practice and Experience (SPE), Wiley, 2024.
- M. Maruf, A. Azim, **N. Auluck**, and M. Sahi, “Optimizing DNN Training with Pipeline Model Parallelism for Enhanced Performance in Embedded Systems”, Journal of Parallel & Distributed Computing (JPDC), 2024.
- K. Fizza, P. Jayaraman, A. Banerjee, **N. Auluck**, and R. Ranjan, "IoT-QWatch : A Novel Framework to Support the Development of Quality Aware Autonomic IoT Applications", IEEE Internet of Things Journal, 2023.
- A. Kaur and **N. Auluck**, "Real-Time Trust Aware Scheduling in Fog-Cloud Systems", Concurrency and Computation: Practice and Experience, Wiley, 2023.
- S. Konar, **N. Auluck**, R. Ganesan, A. Goyal, T. Kaur, M. Sahi, T. Samra, S. Thingnam, and G. D. Puri, "A non-linear time series based artificial intelligence model to predict outcome in cardiac surgery", Health and Technology, Springer, 2022.
- K. Fizza, A. Banerjee, P. Jayaraman, **N. Auluck**, R. Ranjan, K. Mitra, and D. Georgakopoulus, "A Survey on evaluating the Quality of Autonomic Internet of Things Applications", IEEE Communication Surveys and Tutorials, 2022.
- A. Kaur and **N. Auluck**, "Scheduling Algorithms for Hierarchical Fog Networks", Journal of Software: Practice and Experience, Wiley, 2022.
- A. Kaur, **N. Auluck** and O. Rana, "Real-Time scheduling on Hierarchical Heterogeneous Fog Networks", IEEE Transactions on Services Computing, 2022.
- M. Maruf, A. Singh, A. Azim, and **N. Auluck**, “Faster fog computing based over-the-air updates: A transfer learning approach”, IEEE Transactions on Services Computing, 2021.
- K. Fizza, **N. Auluck** and A. Azim, "Improving the Schedulability of Real-Time Tasks using Fog Computing", IEEE Transactions on Services Computing, September 2019.
- A. Singh and **N. Auluck**, “Load Balancing Aware Scheduling Algorithms for Fog Networks”, Journal of Software: Practice and Experience, Wiley, June 2019.
- A. Singh, **N. Auluck**, O. Rana, A. Jones, S. Nepal, "Scheduling Real-Time Security Aware Tasks in Fog Networks", IEEE Transactions on Services Computing, May 2019.
- S. Saroja and **N. Auluck**, "Multi-Criteria Decision Making for Heterogeneous Multiprocessors Scheduling", International Journal of Information Technology and Decision Making, Vol. 17, No. 5, 2018, pp. 1399 - 1427.

- J. Singh, S. Betha, B. Mangipudi and **N. Auluck**, "Contention Aware Energy Efficient Scheduling on Heterogeneous Multiprocessors", IEEE Transactions on Parallel and Distributed Systems, Vol. 26, No. 5, May 2015.
- **N. Auluck**, “Improving the Schedulability of Hybrid Real-Time Heterogeneous Network of Workstations (NOWs)", International Society for Advanced Science and Technology (ISAST) Transactions on Computers and Intelligent Systems, Volume 1, Number 2, 2009, pp. 94 - 96.
- **N. Auluck** and D. P. Agrawal, “Enhancing the Schedulability of Real-Time Heterogeneous Network of Workstations (NOWs)", IEEE Transactions on Parallel and Distributed Systems, Vol. 20, No. 11, November, 2009, pp. 1586-1599.

Conference publications

- P. Bhardwaj, and **N. Auluck**, "OffloadX: Uncertainty-Aware Decision-Making in Self-Driving Car Networks” has been accepted for presentation at the 2nd Annual CLEETS Global Center Meeting, co-located with the SRI Congress taking place June 16-20, 2025, Chicago, IL, 60611, USA.
- A. Sharma, and **N. Auluck**, "Dynamic Real-Time Scheduling on Distributed Hierarchical Fog Networks", The 31st IEEE/ACM International Conference on High Performance Computing, Data, and Analytics (HiPC), Student Research Symposium, Bengaluru, December 18-21, 2024.
- P. Bhardwaj, **N. Auluck**, and A. Azim, "Machine Learning Powered Workload Prediction and Task Offloading in Vehicular Networks ", The 34th International Conference on Collaborative Advances in Software and Computing (CASCON), York University, Toronto, Canada, November 11-15, 2024.
- Md. Al-Maruf, Akramul Azim, **Nitin Auluck**, and Mansi Sahi, "FeaMod: Enhancing Modularity, Adaptability and Code Reuse in Embedded Software Development", The IEEE 25th International Conference on Information Reuse and Integration, San Jose, USA, August 2024 [**best paper award**].
- Ashish Kaushal, Osama Almurshed, Areej Alabbas, **Nitin Auluck**, and Omer Rana, "An Edge-Cloud Infrastructure for Weed Detection in Precision Agriculture", The 21st IEEE International Conference on Pervasive Intelligence and Computing (PiCom 2023).
- Md. Al-Maruf, Mansi Sahi, **Nitin Auluck**, and Akramul Azim, "Towards Safe Online Machine Learning Model Training and Inference on Edge Networks", The 22nd IEEE International Conference on Machine Learning and Applications (ICMLA), Jacksonville, USA, December, 2023.
- Osama Almurshed, Souham Meshoul, Asmail Muftah, Ashish Kumar Kaushal, Osama Almoghamis, Ioan Petri, **Nitin Auluck** and Omer Rana, "Performance Optimization for Cross-Domain Intelligent IoT Applications", 1st International Workshop on Urgent Analytics for Distributed Computing (QuickPar), Cyprus, August 28-29, 2023 (co-located with Euro-Par 2023).
- Areej Alabbas, Ashish Kaushal, Osama Almurshed, Omer Rana, **Nitin Auluck**, and Charith Perera, "Performance analysis of Apache OpenWhisk across the Edge-Cloud continuum, IEEE International Conference on Cloud Computing (IEEE Cloud), Chicago, USA, July, 2023.
- A. Singh, **N. Auluck**, O. Rana and S. Nepal, "Scheduling real-time security aware tasks in fog networks", IEEE World Congress on Services, Chicago, USA, September 5-10, 2021.
- M. Sahi, M. Soni and **N. Auluck**, "Intrusion detection system on fog architecture", The Fourth International Workshop on Smart Living with IoT, CLoud and Edge Computing (SLICE 2021), Denver, USA, October 4-7, 2021 (virtual).

- M. Sahi, M. Maruf, A. Azim and **N. Auluck**, "A framework for partitioning support vector machine models on edge architectures", The Fourth International IEEE Workshop on Deep Learning on Edge for Smart Health and Wellbeing Applications (EDGE-DL), Irvine, CA, USA, August 23, 2021 (virtual).
- D. Ranpariya, G. Singh, A. Rattan, H. Singh and **N. Auluck**, "Machine learning-based Acoustic Repellent System for Protecting Crops against Wild Animal Attacks", The Fifteenth IEEE International Conference on Industrial and Information Systems (ICIIS), November 26 - 28, 2020.
- M. Sahi and **N. Auluck**, "An IoT based Intelligent Irrigation Management System", The Twenty-Sixth International Conference on Advanced Computing and Communications (ADCOM), December 16-18, Silchar, Assam, 2020.
- M. Maruf, A. Singh, A. Azim and **N. Auluck**, "Resource Efficient Allocation of Fog Nodes for faster Vehicular OTA Updates", The IEEE International Symposium on Networks, Computers and Communication (ISNCC), Montreal, Canada, 2020.
- A. Kaur and **N. Auluck**, "A Fog based Fire Evacuation Framework", The Eighteenth Australasian Symposium of Parallel and Distributed Computing (AUSPDC), February 3 - 7, Melbourne, Australia, 2020.
- K. Fizza, **N. Auluck**, A. Azim, M. Maruf and A. Singh, "Faster OTA Updates in Smart Vehicles using Fog Computing", The Eighth International ACM Workshop on Cloud and Edge Computing and Applications Management (CloudAM), Auckland, New Zealand, December, 2019.
- K. Fizza, **N. Auluck**, O. Rana and L. Bittencourt, "PASHE: Privacy aware Scheduling in a Heterogeneous Fog Environment", The Sixth IEEE International Conference on Future of Internet of Things and Cloud, August 6-8, Barcelona, Spain, 2018.
- K. Fizza, **N. Auluck**, A. Azim, "Improving the Interactivity and Security of Diabetes Data using Fog Computing (Poster)", The Ninth Student Research Conference, University of Ontario Institute of Technology, Oshawa, Canada, May 3, 2018.
- A. Singh, **N. Auluck**, O. Rana, A. Jones, S. Nepal, "RT-SANE: Real-Time Security aware Scheduling on the Network Edge", The Tenth IEEE/ACM International Conference on Utility & Cloud Computing (UCC), Austin, USA, December 5-8, 2017 (**finalist for best paper award**).
- I. Petri, O. Rana, J. Bignell, S. Nepal, and **N. Auluck**, "Incentivising Resource Sharing in Edge Computing Applications", The Fourteenth International Conference on Economies of Grids, Clouds, System and Services (GECON 2017), Anglet, France, September 19-21, 2017.
- J. Singh, A. Gujral, H. Singh, J. Singh, **N. Auluck**, "Energy Aware Scheduling on Heterogeneous Multiprocessors with DVFS & Duplication", The Seventeenth IEEE International Conference on Parallel & Distributed Computing, Applications & Technologies (PDCAT) , Guangzhou, China, December 16 - 18, 2016.
- J. Singh, M. Pandey, E. Katiyar, R. Tulasyan, V. Gupta, **N. Auluck**, A Multi-objective Genetic Algorithm to Improve Power and Performance of Heterogeneous Multiprocessors, The IEEE International Conference on Parallel, Distributed & Grid Computing, Shimla, December 22 - 24, 2016 (**second best paper award**).
- J. Singh and **N. Auluck**, "Real-Time Scheduling on Heterogeneous Multiprocessor Systems", The IEEE International Conference on Parallel, Distributed & Grid Computing (PDGC 2016), Shimla, December 22-24, 2016.
- J. Singh, M. Pandey, E. Katiyar, R. Tulasyan, V. Gupta and **N. Auluck**, "A Multiobjective Genetic Algorithm to improve power and performance of heterogeneous multiprocessors", IEEE International Workshop on Network Computing and Data Management, Tianjin, China, August 23 - 26, 2016.
- J. Singh and **N. Auluck**, "Controlled Duplication Scheduling of Real-Time Precedence tasks on Heterogeneous Multiprocessors", The 19th Workshop on Job Scheduling Strategies for Parallel Processing (JSSPP), held in conjunction with the 29th IEEE International Parallel and Distributed Processing Symposium (IPDPS), Hyderabad, India, May 25-29, 2015.

- J. Singh and **N. Auluck**, “DVFS and Duplication based scheduling for optimizing Power and Performance in heterogeneous multiprocessors”, The 22nd ACM High Performance Computing Symposium, April 13 - 16, 2014, Tampa, Florida, USA.
- J. Singh, B. Mangipudi, S. Betha and **N. Auluck**, “Restricted duplication based MILP formulation for scheduling task graphs on unrelated parallel machines", The IEEE International Symposium on Parallel Architectures, Algorithms and Programming (PAAP) 2012, Taipei, Taiwan, pp. 202-209.
- J. Singh and **N. Auluck**, “Controlled Duplication for Scheduling Real-Time Precedence Tasks on Heterogeneous Multiprocessors", The IEEE High Performance Computing Conference (HiPC), Student Research Symposium, December 18 - 21, 2011, Bengaluru, India.
- **N. Auluck**, “A Theoretical Framework for Improving the Schedulability of Hard and Soft Real-Time Tasks on Heterogeneous Network of Workstations (NOWs)", The Third IEEE International Conference on Electronics and Computer Technology (ICECT), Kanyakumari, India, April 8-10, 2011.
- **N. Auluck**, “Duplication Based Integrated Scheduling of Hard and Soft Real-Time Tasks and Messages on Precedence Related Heterogeneous Network of Workstations (NOWs)", The Tenth IEEE High Assurance Systems Engineering Symposium, November 14-16, 2007, Dallas, Texas, USA, pp. 429-430.
- **N. Auluck** and D. P. Agrawal, “An Integrated Scheduling Algorithm for Precedence Constrained Hard and Soft Real-Time Tasks on Heterogeneous Multiprocessors", The International Conference on Embedded and Ubiquitous Computing (EUC, 2004), August 25-27, Aizu, Japan, pp. 196-206.
- **N. Auluck** and D. P. Agrawal, “A Scalable Task Duplication Based Algorithm for improving the Schedulability of Real-Time Heterogeneous Multiprocessor Systems", Proceedings of the International Conference on Parallel Processing, ICPP, Second International Workshop on Compile/Run-time Techniques for Parallel Computing, October 6-9, 2003, Kaohsiung, Taiwan, pp. 89-96.
- **N. Auluck** and D. P. Agrawal, “Reliability Driven, Non Preemptive Real Time Scheduling on Heterogeneous Systems", Proceedings of the Fourteenth IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS), November 4-6, 2002, MIT, Cambridge, USA, pp. 803-809.

Doctoral dissertation

- “Real-Time Scheduling Algorithms for Precedence Related Tasks on Heterogeneous Multiprocessors", Department of Computer Science and Engineering, University of Cincinnati, 2005, guide: Prof. Dharma Agrawal. Download link: https://etd.ohiolink.edu/ap:10:0::NO:10:P10_ETD_SUBID:80147.

Research grants

- “Sustainable security solutions for 6G communication networks”, Finnish - India Consortia for Research and Innovation (FICORE), 30,000 Euros, 2023 - 2024, approved.
- “Developing a distributed, fog computing based security system for IoT networks using AL/ML techniques”, Indo-Taiwan project, Indian Rupees 1,50,000/-, 2023 - 2024, approved.
- “Algorithm and Mobile Application Development for Quality Measurement of Cotton fiber using Imaging and Experimental Technique: A Way Towards Empowering the Farmers”, Oswal group, 2023 - 2024, Indian Rupees 10.70 lakhs (10,70,000), approved.
- “Edge computing and analytics”, British Council, 20,000 UK Pounds, 2021 – 2022.

- “An Artificial Intelligence based forecasting model for non-linear multivariate biomedical time series”, Department of Science and Technology, National Supercomputing Mission, Indian Rupees 32.84 lakhs (32,84,000), 2021 – 2023.
- “Edge computing based Human Computer Interaction”, Global Challenges Research Fund (GCRF), 3000 UK pounds, 2020 - 2021.
- *“*Duplication Based Real-Time Scheduling Algorithms for Heterogeneous Multiprocessors", Department of Science and Technology, Government of India, Indian Rupees 14.16 lakhs (14,16,000), 2012 – 2015.
- *“*Real-Time Scheduling Algorithms for Heterogeneous Multiprocessors", Indian Institute of Technology Ropar seed grant, Indian Rupees 5 lakhs, Three Thousand (5,03,000), 2010 – 2011.
- Prototype Development and Innovation Fund, Punjab Technical University, Indian Rupees 2 crores (2,00,00,000), 2012 - present.
- Technology and Incubation Development for Entrepreneurs, Ministry of Electronics and Information Technology, Indian Rupees 60 lakhs (60,00,000), 2012 - 2018.

Research visits

- Department of Information and Communications Engineering, Aalto University Finland, June-July 2024.
- Department of Computer Science, Dalhousie University, Canada, July 2023.
- School of Computer Science and Informatics, Cardiff University, UK, October 2016 | May – July 2017 | May – June 2022.
- Department of Computer Science, Binghamton University, Binghamton USA, July 2017.
- Department of Computing, Imperial College, London, UK, March 2011.

Research collaborators

- Prof. Omer Rana, Cardiff University, UK.
- Prof. Surya Nepal, Commonwealth Scientific and Industrial Research Organization, (CSIRO), Australia.
- Dr. Akramul Azim, University of Ontario Institute of Technology (UOIT), Canada.
- Dr. Luiz Bittencourt, University of Campinas, Brazil.
- Prof. Prem Jayaraman, Swinburne University, Australia.
- Dr. Abhik Banerje, Swinburne University, Australia.
- Dr. Karan Mitra, Lulea University of Technology, Sweden.
- Prof. Goverdhan Dutt Puri, Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh.
- Dr. Rajarajan Ganesan, Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh.
- Prof. Rajiv Ranjan, Newcastle University, UK.
- Dr. Ioan Petri, Cardiff University, UK.
- Dr. Charith Perera, Cardiff University, UK.

Invited Talks

- National Institute of Technology (NIT): Jalandhar, Warangal, Bhopal, Surat.
- Indian Institute of Information Technology (IIIT): Allahabad, Bangalore.
- National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh.
- Jawaharlal Nehru University (JNU).
- Central University of Punjab, Bhatinda, 2022.

- Punjab Engineering College (PEC), Chandigarh.
- Punjab University, Chandigarh.

Editorial Work

- Editor, Journal of Concurrency and Computation: Practice and Experience (CCPE), Wiley, 2020 - present.
- Associate Editor, Frontiers in Internet of Things, 2023 – present.
- Editor, Proceedings of the 2nd International Conference on Big Data, Machine Learning, and Applications, BigDML, 2021, Springer.
- Editor, Proceedings of the 11th International Conference on Advanced Computing and Communication technologies, ICACCT, 2018, Springer.

Conference Organization

- Workshop co-chair, IEEE/ACM CCGRID, May 6 - 9, 2024, Philadelphia, Pennsylvania, USA.
- Publicity Chair, IEEE International Conference on Edge Computing, July 7 - 13, 2024, Shenzhen, China.
- General co-chair, EAI International Conference on Safety-Critical Software and Systems (SCS), Toronto, February 20-24, 2024.
- PC member, 16th IEEE/ACM International Conference on Utility and Cloud Computing (UCC), Taormina (Messina), Italy, December 4 - 7, 2023.
- Publicity Chair, IEEE International Conference on Edge Computing, July 2-8, 2023, Chicago IL USA.
- Workshop co-chair, IEEE/ACM CCGRID, May 1-4, Bengaluru, India.
- Workshop co-chair, IEEE/ACM UCC, December 6-9, 2022, Portland, USA.
- PC member: 22nd, 21st, 20th ACM Australasian Symposium on Parallel and Distributed Computing (AUSPDC), 2024, 2023, 2022.
- PC member: 11th, 10th, 9th, IEEE International Conference on Future Internet of Things and Cloud (FiCloud), 2024, 2023, 2022.
- PC member: 14th and 13th IEEE International Conference on Cloud Computing, 2023, 2022.
- PC member: 20th and 18th IEEE Consumer Communications and Networking Conference (CCNC), 2023, 2021.
- PC member: The 22nd IEEE/ACM International Symposium on Cluster, Cloud, and Internet Computing, CCGRID 2022.
- PC member (Cloud Operations Management Track), IEEE International Conference on Cloud Computing, September 5-10, 2021, online.
- Co-chair, The 9th International workshop on Cloud and Edge computing and applications management (CloudAM), December 6 - 9, 2021, Leicester, UK.
- PC member, The 21st IEEE International Conference on Scalable Computing and Communications (ScalComm), October 18-21, Atlanta, USA.
- PC member, The 8th International Conference on Future of Internet of Things and Cloud (FiCloud), August 23-25, 2021, online.
- Co-chair, The 7th International Conference on Algorithms and Discrete Applied Mathematics (CALDAM), February 11-13, 2021, IIT Ropar.
- Session chair, The 13th IEEE/ACM International Conference on Utility and Cloud Computing, December 7 - 10, Leicester, UK.
- Program committee member, The Twenty First IEEE International Symposium on Cluster, Cloud and Internet Computing (CCGrid), May, 2021, Melbourne, Australia.

- Program committee member, The Second IEEE International Conference on Fog and Edge Computing (ICFEC), May 2020, Melbourne.
- Program committee member, The Second IEEE International Conference on Fog and Edge Computing (ICFEC), May 2019, Cyprus.
- Program committee member, The IEEE International Conference on Scalable Computing and Communications, (Scalcom), October 2018, Guangzhou, China.
- Program committee member, The Second IEEE International Conference on Fog and Edge Computing (ICFEC), May 2018, Washington DC, USA.
- Program committee member, Student Research Symposium, the Twenty Second IEEE and ACM High Performance Computing Conference (HiPC), Bangalore, India, 2015.
- Program committee member, Student Research Symposium, the Twentieth IEEE Conference on High Performance Computing (HiPC), Bangalore, India, , 2013.
- Expert committee member for networking project at the National Institute of Pharmaceutical Education and Research (NIPER), Mohali, November 2013 - March 2014.
- Program committee member, Student Research Symposium, the Nineteenth IEEE and ACM High Performance Computing Conference (HiPC), Pune, India, December 18 - 21, 2012.

Reviewer services

- Served as a reviewer for many conferences and journals such as the IEEE Transactions on Services Computing, IEEE Transactions on Parallel and Distributed Systems, ACM Transactions on Architecture and Code Optimization, Journal of Parallel and Distributed Computing, Journal of Parallel Computing, Elsevier Journal of Supercomputing, IEEE Computer Magazine, Conference on Parallel and Distributed Computing and Systems, among others.
- Reviewed research proposals for the Department of Science and Technology (DST), Government of India: 2022, 2023.
- PhD thesis reviewed - Indian Institute of Technology (IIT) Guwahati, National Institute of Technology (NIT) Bhopal, NIT Srinagar, Birla Institute of Technology and Science (BITS) Goa, Indian Institute of Information Technology (IIIT) Bangalore.

Administration & Other Services

National Level Administrative Assignments

- Member advisory board, STPI Mohali, 2016 - present.
- Program evaluator, National Board of Accreditation, 2022 - present.
- Member, IT and IT enabled services sectional committee, Bureau of Indian Standards, 2023 - present.

Institute Level Administrative Assignments

- Founding Head of Training and Placement cell of IIT Ropar, 2011 - 2012.
- Head of IT services of IIT Ropar for 3 terms, 2012 - 2021.
- Member, ranking committee of IIT Ropar, 2016 - 2020.

Department Level Administrative Assignments

- Head of the CSE Department, 2012 - 2015, 2020 - 2022.
- Member, Department Purchase committee.

- Member, Department faculty shortlisting committee, current.
- Member, Department Research council, current.
- Member, Department Logistics council, current.

Scholarships

- University Grants Scholarship that covered full tuition costs at the University of Cincinnati, USA, September 1999 to July 2004.
- Teaching Assistantship, Department of Computer Science, University of Cincinnati, USA, August 1999 to July 2000.
- Research Assistantship in the Center for Distributed and Mobile Computing, University of Cincinnati, USA, August 2000 to July 2004.

Teaching

- Courses taught at the Indian Institute of Technology Ropar - GE103 Introduction to Programming and Data Structures, GE107 - Tinkering Lab, CS301 - Database Systems, CS303 - Operating Systems, CS604 - Advanced Operating Systems, CS626 - Scheduling in Parallel and Distributed Systems.
- Courses taught at Quincy University - CS160 Computer Programming, CS300 Data Structures, CS420 Databases, MIS270 - Management Information Systems.
- Teaching Assistant, University of Cincinnati, USA - Data Structures, Algorithms.

References

1. Prof. Prem Jayaraman

   School of Software and Electrical Engineering

   Swinburne University, Hawthorn, Victoria, 3122, Australia.

   Phone: +61 392148587, pjayaraman@swin.edu.au.

2. Prof. Daya Gaur

   Department of Computer Science

   University of Lethbridge, Lethbridge, Canada

   Phone: +1 403 329 2496, email: gaur@cs.uleth.ca.

3. Prof. Omer Rana

   School of Computer Science and Informatics

   Cardiff University, Cardiff UK, CF24 3AA.

   Phone: +44 (0)29 2087 5542, email: ranaof@cardiff.ac.uk.

Miscellaneous information

- Date of birth: 12 September, 1975.

- Category: General.
- Gender: Male.
- Nationality: Indian.

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