

Dr. Amardeep Singh

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Address for Correspondence:

Amardeep Singh S/o Sh. Mohinder Singh,
36-C Vikas Colony,
Patiala (Pb). 147001.

Present Designation:

Working as **Professor** in Computer Science and Engineering Department, Punjabi University, Patiala.

Academic Qualifications:

- **B.Tech, M.Tech** Computer Science and Engineering.
- **Ph.D** from Thapar University, Patiala in 2006.

(DNA and Quantum Computing Application to Automated Test Pattern Generation for VLSI circuits)

Under the Supervision of:

Dr. Lalit M Bharadwaj, Associate Director and Head, Nanoscience and Nanotechnology Department, CSIO, National Laboratory of CSIR, Chandigarh.

Research Metrics:

Google Scholar Profile

<https://scholar.google.co.in/citations?user=AWkkBicAAAAJ&hl=en>

ORCID Profile

<https://orcid.org/0000-0002-4746-1205>

Teaching Experience: (24 Years)

- Working in Punjabi University since **2005**.
- Worked as **Lecturer** in Department of Computer Science & Engineering, Thapar University, Patiala. (2000-2005)

- Worked as **Lecturer** in **GNDU, Amritsar (1998-2000)**

Area of Specialization:

Network Security, Cloud Technology, Soft Computing, Nano Technology, Machine Learning, Smart Agriculture, Digital Forensics, Bio Computing & Bio Informatics.

Thesis Guided:

At Master Degree Level (60 App.)

At Doctorate of Philosophy Level (10 completed + 05 Registered)

Conferences/Short Term/refresher courses conducted: (15 App.)

Extra Curriculum activities

➤ Administrative responsibilities:

- Coordinator, Centre for Artificial Intelligence and Data Science, Punjabi University.
- Worked as Head of Department, Computer Science and Engineering, Punjabi University.
- Member, University Research Board for PhD students.
- Member, University Board of Studies, PTU
- Worked as Coordinator, Placement Committee of Punjabi University.
- Coordinator, Infosys “Campus Connect” University Programme.
- Life Member Institute of Electronics & Telecommunications Engineers (IETE).
- LEAP in collaboration with Harvard University, USA
- Member UGC, Major Grant Funding Projects.

➤ Government Funding Projects:

- Handled Special Manpower Development Project of 75 Lacs for “VLSI Design & Related Software” (SMDP-VLSI) as co-coordinator.

(SMDP-VLSI is a project launched by Ministry of Information Technology, government of India in co-operation with MHRD, AICTE and UGC. Objectives of project is to raise the institutional capabilities for development of special manpower in VLSI related software’s and providing training to students, researchers and faculty members).

- “DNA and Quantum Computing Application for testing VLSI circuit” project of .95 Lacs funded by UGC under Minor Project.

- "Non-conventional computational techniques for modeling and simulating the sequences of bio-molecules database" project of 8 Lacs funded by UGC Major Project.

Publications:

International (80 App.)

(List of major peer reviewed and SCI publications)

- Amardeep Singh, Lalit M. Bharadwaj and Singh Harpreet "DNA and Quantum based Algorithms for VLSI Circuits Testing" *Natural Computing an International Journal*, Springer Science formerly Kluwer Academic Publication (2005), Published at Springer Netherlands.
- Amardeep Singh and Maninder Kaur "DNA computing approach for automated test pattern generation for digital circuits" *International Journal of Systems Science* (2008) published by Taylor & Francis, Inc. Bristol, PA, USA.
- Amardeep Singh and Rajiv Kumar "Segmentation of Handwritten Text in Gurmukhi Script" *International Journal of Computer Science and Security*, (2008) published at Kuala Lumpur, Malaysia
- Amardeep Singh "Generating Test Pattern for FPGA Circuits: A Quantum Computing Approach" *International Journal of Computational Methods* (2013) World Scientific Publishing, Singapore.
- Amardeep Singh and Dilraj Singh "Enhanced Secure Trusted AODV (ESTA) Protocol to Mitigate Blackhole Attack in Mobile Ad Hoc" (2015) *Future Internet* MDPI publishes, Switzerland.
- Amardeep Singh & Harpreet Kaur "Optimal Selective Count Compatible Run length encoding for SOC Test Data Compression" (2016). *Journal of Electronic Testing: Theory and Applications*, Springer Publication, USA.
- Gurjit Singh Bhathal and Amardeep Singh, "Big Data Computing with Distributed Computing Frameworks", (2019). *Innovations in Electronics and Communication Engineering*, Springer Nature Singapore. SCI Indexing.

- Cheema, S.S., Singh A, "Crop-soil data management system of cropping decision system ", (2019) *International Journal of Scientific and Technology Research*. SCI Indexing.
- Kanwal Preet Singh Attwal & Amardeep Singh, " Investigation and Comparative Analysis of Data Mining Techniques for the Prediction of Crop Yield" (2020) *International Journal of Sustainable Agricultural Management and Informatics*, Inderscience.
- Harpreet Vohra & Amardeep Singh, "Test architecture optimization algorithms for coarse-grain partitioned 3D system-on-chip" (2022) *Computers and Electrical Engineering*, Elsevier Publication.

I declare that all information given above is to the best of my knowledge and belief, true and correct.

(Dr. Amardeep Singh)

Updated on Sept, 2022