

Dr. Amardeep Singh



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Present Designation:

Working as **Professor & Head** in Computer Engineering Department, University College of Engineering, Punjabi University, Patiala.

Academic Qualifications:

- **B.E. Electronics Engineering** from MIT, Dr. B. Ambedkar Marathwada University, Aurangabad.
- **M.Tech in Computer Science & Engineering** from Punjabi University.
- **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.

Teaching Experience: (19 Years)

- Worked as **Lecturer** in Department of Computer Science & Engineering, **Thapar University, Patiala.**
- Worked as **Lecturer** in **GNDU, Amritsar**

Area of Specialization and Subjects Taught:

- **At Under-graduate Level (B.Tech)**
Operating Systems, Programming Languages (C, C++ and JAVA), Software Engineering, Network Management.
- **At Post-graduate Level (M.Tech Computer/Software Engineering, M.Tech VLSI)**
Real Time Software and Systems, LINUX Administration, VLSI Testing and Testability, Hardware/Software co-design, Computer Peripheral Devices, Network Security)

Thesis Guided:

At Master Degree Level (60 App.)

At Doctorate of Philosophy Level (05 completed + 08 Registered)

Conferences/Short Term/refresher courses conducted: (10)

Extra Curriculum activities

➤ Administrative responsibilities:

- Member, University Research Board for PhD students.
- Member, University Board of Studies.
- Coordinator, Placement Committee of Punjabi University.
- Coordinator, Infosys “Campus Connect” University Programme.
- Life Member Institute of Electronics & Telecommunications Engineers (IETE).
- Member, Distance Education Council, PTU
- 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” funded by UGC under Minor Project.
- "Non conventional computational techniques for modeling and simulating the sequences of bio-molecules database" funded by UGC Major Project.

Books Publication:

- “BIOINFORMATICS COMPUTING”, Amardeep Singh and Deepak Garg, ISBN 8177646311, Allied Publications.
- “SOFT COMPUTING”, Amardeep Singh and Deepak Garg, ISBN 8177646312, Allied Publications.

Publications:

International (40 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" *Journal of Electronic Testing: Theory and Applications* (2016). Springer Publication, USA.

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

(Dr. Amardeep Singh)