Lisha Goel

Roll No.:2022EE11685
B.Tech - Department of Electrical Engineering
Expected graduation yeat: 2026
Indian Institute Of Technology, Delhi

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Education

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. Electrical Engineering	Indian Institute of Technology, Delhi	9.35 (Current)	2022-Present
Senior Secondary	Delhi Public School R.K. Puram, CBSE	97.2%	2022
Secondary	Delhi Public School R.K. Puram, CBSE	96.4%	2020

Achievements

- **Department Rank 5**,IIT Delhi Electrical Engineering Department *Aug' 2025*
- **Joint Engineering Exam (JEE) ADVANCED**,Secured All India Rank of 1453 among 200k candidates *Oct' 2022*
- **IISER Aptitude Test**,Secured All India Rank 11 out of 45k candidates *Jun' 2022*
- **KVPY SX Scholar**,Secured All India Rank 1509 and awarded fellowship by IISC Bangalore *Jul' 2022*
- **Joint Engineering Exam (JEE) MAINS**,Secured All India Rank 1566 out of 1M+ candidates *Apr' 2022*
- **Winner of Women's Category - MIMAMSAA IISER Pune National Science Competition**, *Oct' 2023*
- **Mittal Rennaisance Scholarship Award**,Awarded to top 15 all-rounders across the university *Feb' 2025*
- **Awarded for Excellence in Academic Performance Top 7%**,Year I (Sem.2), Year II (Sem.1), Year III(Sem. I & II)
- **Barclays Women in Finance Mentorship**,Selected in top 5 girls across university by Barclays India *Jul' 2024*
- **Selected for Texas Instruments, Women in Silicon Hardware Hybrid Mentorship Programme**, *Jun' 2024*
- **Gold Medal for Academic Excellence in D.P.S. R.K. Puram**,Conferred in high school *[2016-22]*

Experience

- **Summer Undergraduate Research Intern (SURA), IIT Delhi** *May 2024 - July 2024*
  Under Prof. Abhisek Dixit(Philips (NXP) Chair Professor, Department of Electrical Engineering) Delhi, India
  – Circuit based model for Simulation of quantum entanglement in Multi Qubit System based on electron spin qubits
  – Simulated Bell States with prolonged coherence time of 100us and under process of patenting the novel technology
  – Verification of entanglement by modelling CNOT Gate with 80 percent fidely with the circuit solver
- **Texas Instruments India** *May 2025 - July 2025*
  Summer Internship in BLDC Motor Driver Bench Validation Team as Analog Intern Bengaluru, India
  – Developed automation framework for report generation for value abstraction from large amount of validation data
  – Integration of this framework to BLDC Motor driver devices for algorithmic validation with multiple sweep parameters reducing validation time from 2 weeks to 2 days as well as reducing manual intervention to almost neglegible

Projects

- **Underwater Acoustic Tonals Detection using Adaptive Line Enhancers** *Apr, 2024 - May, 2025*
  Prof. Arun Kumar and Prof. Akash Arora Centre for Applied Research in Electronics
  – Identification and amplification of tonals, i.e. harmonics, of SNR as low as 4dB from underwater acoustic data
  – Implemented frequency domain sparsity based algorithms working on the principle of noise correlations for reliably predicting the presence of stealth Submarines underwater without detecting spurious peaks
- **Fabrication of Flexible Magnetic Sensors for e-skin and VR Systems** *Mar, 2023 - ongoing*
  Professor Pintu Das(Department of Physics, IIT Delhi) Industrial Research and Development(IRD)
  – Fabrication and charecterization of flexible planar hall effect based magnetic sensors for subnanoTesla sensitivity
  – Developed a contact less 3-D screen control based on flexible ring sensor and sensor based surgical needle control
- **Magnetoreception of spin in biomolecules for application in Skin Cancer Treatment** *Apr, 2025 - ongoing*
  Prof. Aarat Kalra(Centre of Biomedical Research , IIT Delhi and AIIMS Delhi) Bioelectronics Research Group
  – Studying the conversion from singlet to triplet state of molecules in the presence of magnetic and electric fields
  – To understand migratory bird navigation mechanism by studying the magnetoreception of riboflavin in their eyes
  – Developing on this methodology to force oxygen to triplet state fo skin cancer treatment therapy
- **Coarse Receiver Transmitter Alignment in Long Range Optical Communication** *Jun, 2025 - ongoing*
  Prof. Abhishek Dixit(Department of Electrical Engineering)
  – For aligning receiver optimum heading with micro radian accuracy when the transmitting antenna is 10 km away

Extra-Curriculars

- **University Ambassadors Consortium G17 Sustainability Coordinator IIT Delhi**, *[2024-25]*
- **Academic Mentor Body of Student Welfare**,Teaching juniors Quantum Mechanics and Electrodynamics *[2023-24]*
- **Student Mentor Body of Student Welfare**,Guiding mentees throughout their term at IIT Delhi *[2024-...]*
- **Vice Captain Institute Squash Team**,Won Inter IIT National Women's Squash Gold 2024 *[2025-26]*
- **Body Of Sports Affairs Coordinator IIT Delhi**,University Head of Operations for Sports Management *[2025-26]*