PRATHAM AGRAWAL

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PROFILE SUMMARY

PhD scholar in Electrical Engineering at IIT Delhi with a strong interest in biomedical instrumentation, hardware design, and signal processing. Proficient in applying theoretical knowledge to practical challenges and passionate about developing innovative solutions in electronics and signal processing.

EDUCATION

- **PhD in Electrical Engineering** *2026 – Present*
  Indian Institute of Technology, Delhi
- **Master of Science in Electronics** *2023 – 2025*
  Dr. Ram Manohar Lohia Avadh University, Ayodhya
- **Bachelor of Science in Electronics** *2020 – 2023*
  Dr. Ram Manohar Lohia Avadh University, Ayodhya

ACHIEVEMENTS & CERTIFICATIONS

- **Best Paper Award** for the research paper "Revealing Hidden Discriminative Information in Highly Similar Upper-Limb Actions Using Frequency-Domain Features" in the MUMIDC: Multimodal Upper-limb Movement Intent Detection Challenge held as part of the 8th International Conference of Activity Behavior and Computing 2026 in Muroran & Hakodate , Japan.
- **University Gold Medal** for achieving the highest marks in Postgraduation.
- Qualified for **UGC-NET JRF June 2025**, eligible to receive research fellowship from UGC.
- NPTEL Certification course on **"VLSI Design Flow: RTL to GDS"**.

PUBLICATIONS

- G. Srivastava, A. K. Sharma, **Pratham Agrawal**, and R. Tiwari, "Revealing hidden discriminative information in highly similar upper-limb actions using frequency-domain features for reliable cross-subject classification," *International Journal of Activity and Behavior Computing*, vol. 2026, no. 2, pp. 1–29, 2026. DOI: 10.60401/ijabc.157.

WORK EXPERIENCE

- **Vatsalya Digital Data Solutions Pvt Ltd, Ayodhya, Uttar Pradesh, India** *Financial Advisor*
  Ayodhya, India
  August 2023 – October 2023
- **Pakka Limited, Ayodhya, Uttar Pradesh, India** *Summer Intern*
  Ayodhya, India
  June 2022 – July 2022

WORKSHOPS

- Participated in **Joint ICTP-IAEA School on Detector Signal Processing and Machine Learning for Scientific Instrumentation and Reconfigurable Computing (SMR-4110)** organized by International Center for Theoretical Physics (ICTP) at Trieste, Italy.
- Workshop on **"VLSI Circuit Design and their Application for Artificial Intelligence"**, Organized by the Department of Electrical Engineering, Indian Institute of Technology Indore.
- Workshop on **"Simulation Tools and Technique"** organized by the Department of Physics and Electronics, Dr. RML Avadh University under soft component of PM-USHA scheme.

PROJECTS

- **Real-Time MEMS Accelerometer Data Collection Using ZedBoard and Post-processing in MATLAB (M.Sc.)**
  Tools: Xilinx Vivado, Xilinx Vitis, MATLAB
- **Face Recognition Based Attendance System (M.Sc.)**
  Tools: MATLAB
- **LPG Gas Leakage and Smoke Detector System (B.Sc.)**
  Tools: ARDUINO

SKILLS

- **Programming Languages:** MATLAB, Python, VHDL
- **Tools:** Vivado, Vitis, Arduino IDE