

ADIBHAV AGRAWAL

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EDUCATION

Boys' High School & College, Prayagraj, India;

– ISC (Class XII);

– ICSE (Class X);

2013 – 2025

2026 – Present

2024 – 2025

STANDARDIZED TESTS AND APS

• SAT: Total – 1520; Math – 780; EBRW – 740;

2026

• AP Calculus BC – Score: 5;

2026

ACADEMIC HONORS AND AWARDS

School

• Ranked 1st in Grade 11 (1/350) across all three terms

2026

• Ranked 2nd in ICSE Board Examination (2/500)

2025

• Scored 100/100 in Chemistry

2025

• Recipient of Mathematics and Hindi Prizes in Grade 9

2024

International

• Gold Crest Award

2025

• Genius Olympiad

2025

• Two Springer Research Publications

2025, 2026

TECH, INNOVATION AND OUTREACH

Research:

Project Suryoday, Prayagraj, India

2024

This study addresses these concerns by developing an automated cow dung detection and collection robot that combines advanced AI, machine learning, and robotics to provide an efficient, safe, and cost-effective solution. The proposed system utilizes the YOLOv8 deep learning model for real-time detection of cow dung with an accuracy of 85%.

- Wrote a paper entitled, “Design and development of the automated cow dung detection and collection robot for a sustainable environment.”
- The research paper has been published in Springer.

Real-Time EMF Monitoring Project, Prayagraj, India

2025

This project develops a real-time, wireless EMF measurement device to continuously monitor low- and high-frequency radiation on dairy farms. Simultaneously, it tracks cows' physiological and behavioral responses (heart rate, cortisol, milk yield, restlessness) to correlate exposure with health. The goal is to inform safer farm infrastructure and protect livestock welfare.

- Wrote a paper entitled, “Development of a Real-Time EMF Monitoring System and its Application in Assessing Electromagnetic Exposure Effects on Animals.”
- The research paper has been presented at International Conference and is to be published in Springer.

CHEMICAL ENGINEERING EXPERIENCES AND RESEARCH

Industrial Observership

Shyam Dairy, Prayagraj, India (www.shyamdairy.com)

2026

With over 6 lac liters+ processing capacity and having supported 20k+ farmers, Shyam Dairy takes pride in producing high-quality Milk, Ghee, SMP, Dairy Mix and other milk products.

- Observed Plate Heat Exchangers (Plate Heat Exchangers (PHE) used for HTST (High-Temperature Short-Time) pasteurization.
- Tested milk composition (fat percentage, Solids-Not-Fat/SNF), titratable acidity, protein content, and adulteration checks using chemical titration and automated milk analyzers.

Online Courses:

• Six Sigma

2026

- Mastered the DMAIC framework (Define, Measure, Analyze, Improve, Control) to eliminate process defects and reduce variation.

LEADERSHIP INITIATIVES

- College Captain (Class XII) 2026
- Organized Alfresco, the Games & Sports Extravaganza of our school.
- Represented the school at various interschool events
- Frequently anchored school gathering, sports meets & led the student council
- President Literary Club 2026
- Prefect (Classes X & XI) 2024, 2025

COMMUNITY OUTREACH

Core Organizer of Awareness Program for Farmers to implement technology for collecting Cow Dung. 2025

- Highlighted the robot's superiority over conventional systems in terms of health safety, cost-efficiency, and environmental impact. Taught usage of Hi-Tech Farm instruments and autonomous prototypes.

Animal Wellness Program through Project EMF 2026

- Assessed physiological and behavioral responses in the animals, such as changes in heart rate, cortisol levels, milk yield, or restlessness, to explore correlations between EMF intensity and health indicators.

STEM PURSUITS

Online Courses:

- **Introduction to Statistics**, final grade of 94.12% in a 14-hour online course, Stanford University. 2025
- **Building Your Own AI Chatbot**, won Best Presenter Award at a 2-week course from AI Inspirit. 2024
- **AI Ambassador, AI Inspirit** 2024

Internships:

- **WEDO Solutions**, Riyadh, Saudi Arabia 2025
- Participated in regular **code reviews**, bug fixing, refactoring existing modules, and writing documentation or unit tests to ensure code readability and performance.
- Observed senior software engineers, system architects, and project managers to understand how commercial software projects are structured from ideation to production.

MODEL UNITED NATIONS

- LMG MUN – Special Mention 2025
- TBSUMUN – Honorable Mention 2026
- SMUN – High Commendation 2026
- Mentored rising Juniors and Sophomores for leadership roles in Model United Nations at my school.

DEBATES, ELOCUTION & QUIZZING

- Grade 9 – Hindi Elocution Prize Winner 2023
- Grade 10 – Hindi and English Elocution Prize Winner. 2024
- Grades 10 & 11 – Inter–House Debate Winner 2024, 2025
- Grades 10 & 11- Winner of Inter-House Quiz 2024, 2025

LANGUAGES AND WRITING

- Fluent in English, Spanish and Hindi
- Level A2 Diploma of Spanish from Instituto Cervantes, New Delhi. 2024
- Regularly Publish English and Hindi articles, essays and short stories in the annual school magazine.

SKILLS IN COMPUTER SCIENCE

- Familiar with High Level Java Programming and Python. Familiar with with HTML & C++.