

# MANAN ARORA

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## EDUCATION

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**International Baccalaureate Diploma Programme (IBDP)** **July 2023 - Present**

Heritage International Xperiential School

- HL Subjects - Math AA, Physics, Economics & SL Subjects - Chemistry, Langlit, Hindi B
- Extended Essay in Aerodynamics, Physics HL

**Cambridge International Certificate in Education (ICE)** **July 2021 - May 2023**

Heritage International Xperiential School

- Subjects - International Math, Physics, Chemistry, Computer Science, Economics, First Language English, English Literature, Global Perspectives, French

## GRADES & TESTING

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IGCSE 10th Board Exams- 5A\*, 4A out of a total of 9 subjects

International Baccalaureate Diploma Programme Year 1 Results- 36/42

International Baccalaureate Diploma Programme Year 2 Predicted- 40/42

SAT - Math 780 | English Reading & Writing 720 | Total 1500

## LEADERSHIP

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**Chief Engineer (Design and Manufacturing), Photon Racing, F1 in Schools** **August 2024 - Present**

- Led the design and manufacturing of our F1 in Schools car, focusing on advanced aerodynamic principles like Bernoulli's effect and Venturi effects to minimize drag.
- Conducted Computational Fluid Dynamics (CFD) simulations and physical prototype testing to iteratively improve car performance.
- Achieved top 3 placement at National Finals 2024, qualifying for the World Finals in Saudi Arabia.
- Collaborated with team members on innovative design modifications, maximizing the car's speed and stability on track.

**Founder, HIXS STEM Society *Ingenix*** **June 2023 - Present**

- With more than 30 members within the first year, led the society to becoming the largest ever STEM associated organization in our school

**Chairman, Sustainability Council** **June 2023 - Present**

- Led initiatives to reduce food waste in school, conducting surveys and presenting data-driven recommendations.
- Launched campaigns to promote sustainable waste practices, integrating eco-friendly policies within the student community.
- Oversaw council projects to reduce environmental impact, fostering a school culture focused on sustainability.

**TASS Ambassador for School** **June 2023 - Present**

- Acted as Heritage's representative at The Alliance for Sustainable Schools, promoting sustainable practices across the campus.
- Organized eco-conscious events and led campaigns to reduce resource usage, embedding sustainable thinking in school activities.

### **Treasurer - HIXS Student Congress**

**September 2023 - Present**

- Managed financial allocations for student events, ensuring funds were used effectively and transparently.
- Supported 10+ school-wide initiatives such as pizza for paper & Ujala Book donation drivethrough budget planning and facilitated impactful community events.

### **Smart Building Project**

**September 2023 - Present**

- Led a team in designing smart security solutions, including sustainable waste disposal systems and energy-efficient generators for the school's new campus.

## **RESEARCH**

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### **Author, Research Paper**

**September 2023 - Present**

- Conducted under the mentorship of Dr. Vinod Chacko, focusing on photonics and sustainable energy solutions.
- Developed a smart window design using omni-directional reflectors to filter specific wavelengths, regulating heat and light transmission.
- Aimed at reducing energy consumption in buildings, this project contributes to sustainable practices in response to global environmental challenges.
- Currently in the process of being published in an international journal

### **Literature Review**

**September 2023 - Present**

- Conducted a literature review on biodiesel as a sustainable alternative to conventional fuels, assessing its potential for use in school transport solutions.

## **COMMUNITY ENGAGEMENT**

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### **Founder, Project Kangri**

**September 2023 - Present**

- Created a digital translator to preserve the endangered Kangri language, using AI and machine learning to facilitate language accessibility.
- Collaborated with community members to ensure culturally accurate translations and foster language preservation among younger generations.

### **Founder, Project Eklavya**

**September 2023 - Present**

- Launched an initiative aimed at providing holistic education to underprivileged students, conducting workshops on foundational holistic arts
- Organized interactive learning experiences, supporting educational equity and encouraging holistic education in communities where it is often ignored.

### **Co-organizer, Ujala Book Donation and Exchange Drive**

**September 2023 - Present**

- Collected over 800 books within the school community, creating an exchange system and donating remaining books to local NGOs.
- Established a culture of giving back, promoting literacy and resource sharing among students.

### **Co-organizer, Pizza for Paper Drive**

**September 2023 - Present**

- Led a recycling initiative to collect and repurpose 35 kg of paper waste, partnering with Greenobin to promote sustainable practices.
- Educated students on recycling benefits, fostering environmental responsibility within the school.

**Co-organizer, Kindness is the New Cool Anti-Bullying Campaign** **September 2023 - Present**

- Organized performances and events that highlighted anti-bullying messages, promoting inclusivity within the student community.
- Facilitated open discussions and creative sessions to foster a supportive, respectful environment.

**Co-organizer, Waste Collection Drive** **September 2023 - Present**

- Organized and participated in a waste collection drive to gather and recycle paper and plastic in a fort in Ranthambore, Rajasthan to educate students on the importance of waste management.

## **EXTRACURRICULARS**

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**Member, School Badminton Team** **September 2023 - Present**

- Organized and participated in a waste collection drive to gather and recycle paper and plastic in a fort in Ranthambore, Rajasthan to educate students on the importance of waste management.

**Member, School Table Tennis Team** **September 2023 - Present**

- Organized and participated in a waste collection drive to gather and recycle paper and plastic in a fort in Ranthambore, Rajasthan to educate students on the importance of waste management.

**Leader, High School Sustainability Club - Sustain** **September 2023 - Present**

- Led the sustainability club in organizing environmental campaigns and educational events, promoting eco-friendly habits.
- Worked closely with school administrators to implement sustainable solutions, encouraging an environmentally conscious mindset among peers.

**Organizing Committee and Emcee, Science Fiesta (Science Symposium)** **September 2023 - Present**

- Coordinated Science Fiesta, which included expert talks, student projects, and interactive exhibits.
- Served as Emcee, managing the event flow and engaging the audience, promoting enthusiasm for science and innovation.

**Chairperson, Technical Lead, Senior Trainer, MUN Society** **September 2023 - Present**

- Trained new members in public speaking and negotiation skills, preparing them for local and international MUN conferences.
- Organized workshops to develop diplomatic engagement skills and global awareness among students.
- Designed a website and other platforms for communication within the MUN Society core team.

## **ACADEMIC HONORS & AWARDS**

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- Two-time winner of the Innovative Thinking Award – Recognized for engineering and design innovation in F1 in Schools (2022).
- Winner, Science Symposium Event – First place in Science Fiesta 2024 at Heritage International Xperiential School.
- Distinction - International Cambridge Examination, IGCSE.
- Distinction - Sir Isaac Newton Exam, Waterloo University.

## **SKILLS**

- Computational Fluid Dynamics
- Research Tools like Google Scholar
- AI and Machine Learning
- CAD/CAM
- Programming Languages (Javascript, Python, HTML, CSS)