

ANOUSHKA TANDON

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EDUCATION

Dhirubhai Ambani International School (DAIS), Mumbai, India

- International Baccalaureate Diploma Programme (IBDP), Grade 11 - 12 2025 - 2027
- Indian Certificate of Secondary Education (ICSE), Grade 9 - 10 2023 - 2025

STANDARDIZED TESTS & APs

- SAT: 1590 (Reading & Writing: 800 / Math: 790) 2025
- 5 APs, 5/5 in all: Calculus AB & Computer Science A (Gr 8); Calculus BC & Psychology (Gr 9); Statistics (Gr 10) 2023 - 2025
- IELTS: 8.5 (Listening 9.0; Reading 9.0; Writing 8.0; Speaking 8.5; CEFR Level C2) 2026

ACADEMIC HONORS & AWARDS

School

- 4.00 CGPA
- IB Predicted Grade: 45/45 (A in Extended Essay)
- IBDP Grade 11: 42/42 in both terms | School topper (1 of 5 students)
 - Mathematics Analysis & Approaches HL, Physics HL, Economics HL; Chemistry SL, English Lang & Lit SL, Hindi SL
- ICSE Grade 10: 99.6% | All India Rank 3 | School topper | 100/100 in all 4 STEM subjects
- Academic Excellence awards in Grades 8, 9, and 11 for topping the batch and Outstanding Learner Award in Grade 11; Consistent Subject Awards in all subjects

National & International

- AMC 12 Distinguished Honour Roll (top 1% worldwide), Gr 10 2024
- FTC National Jr. Dean's List Award (1st and only student from DAIS to receive the award) 2023
- UN Rex Karmaveer Global Fellowship & Karmaveer Chakra Award for demonstrated national-level social impact across EcoSense (Sustainability), SonicSerenity (HealthTech) & SpeechSmith (EdTech) (All projects detailed below) 2025
- IIT Bombay National TechFest Winner (Asia's largest STEM competition) for EcoSense 2023
- International Outstanding STEM Student of the Year Award, Dubai, for interdisciplinary innovation across EcoSense, SonicSerenity & SpeechSmith 2024
- Adani iCan National Innovation Award + \$2,000 scholarship (EcoSense) 2022
- CREST Gold for EcoSense 2024
- CREST Gold for SonicSerenity 2024
- Avogadro Chemistry World Topper, Gr 10 (40/40) 2025
- Stanford ULO Number Theory, Gr 10 (A* - 103.86%) 2025
- American Association of Physics Teachers (AAPT) PhysicsBowl: Asian Bronze Award 2026
- John Locke Institute Essay Competition — Finalist, History Category 2025
- Harvard International Review — Silver Award 2025

INNOVATION & EMPOWERMENT

SpeechSmith | AI-Powered Communication Coach & Voice Analytics Platform | Founder & Lead Developer

2024 - Present

- Aimed at democratizing access to personalised communication training, particularly for vocational trainees and first-generation job seekers in the Indian job market
- Combines ASR, NLP and semantic feature extraction to analyse linguistic and paralinguistic features such as

- pronunciation, pace, fluency, grammar, filler words, etc. in real-time
- Includes a personalised feedback engine that identifies communication gaps and generates targeted exercises to improve fluency and employability-oriented public-speaking skills
- Reached 45K+ students across 20+ schools, NGOs, and vocational/training centres
- Press coverage by The Economic Times & The Hindu for scaling nationally 2025
- NYAS Winner for STEM-based EdTech solutions; led a 5-member international team; applied its learnings to SpeechSmith 2024

SonicSerenity | *AI-Powered Emotion-Adaptive Therapeutic Music Generation System* | *Founder & Developer* 2023 – Present

- Multi-model system using digital signal processing (DFT-based frequency mapping) to adapt therapeutic audio based on user's real-time emotional states (computer vision), listening histories, preferences, etc.
- Generative AI pipeline integrated with an agentic personalization engine producing therapeutic soundscapes tailored to each individual while reducing the cost and accessibility barriers associated with conventional music therapy
- Backed by 23 psychologists; validated by Nanavati Hospital; Fortis hospital microgrant; presented at IMA 2025, 2026
- International Medical Innovator Challenge Winner, Dubai 2024
- Blue Ocean Top 100 (2025); CREST Gold
- Letter of Recommendation, IIT Mumbai 2025
- Best Paper Award, "Systematic Review of AI-Based Therapeutic Music Generation Systems," FICTA Springer London 2025
- Harvard JEI Publication: "Practical Application of Fourier Analysis to Pitch Detection and Music Synthesis" 2025

EcoSense | *Centralized Smart Waste System (prototype to real-world smart bin)* | *Project Founder & Engineer* 2022 – Present

- IoT-based smart civic waste-management system with dual-authentication (ultrasonic and load sensors), solar powered – tracks bin fill levels in real-time to optimize municipal routing
- Engineered a modular retrofit architecture for existing municipal bins, integrating embedded sensing with remote monitoring and 4G connectivity – transitioned from prototypes to a deployment-ready system
- Presented to the BMC (Mumbai Municipal Corporation), which validated it for commercial deployment; deployment underway 2025
- IIT Bombay National TechFest Winner; Adani iCan National Innovation Award + \$2,000 scholarship; CREST Gold

MUN LEADERSHIP

Secretary-General | *THIMUN The Hague (official NGO with UN & ECOSOC roster consultative status) - the world's largest and most prestigious MUN* 2026

- Led 3,500+ delegates from 200+ schools across 100+ countries
- 1st Secretary-General from India and from DAIS since THIMUN's founding in 1968

Secretary-General | *DAIMUN (School MUN)* 2026

- Leveraged THIMUN network to bring in first-time international participation, including schools from Norway, Qatar, and the UAE

Secretary-General | *UN Information Centre MUN W&C India* 2024

Youngest Assistant Director | *Yale MUN* 2024

6 Best Delegate awards across 9 conferences

DEBATE LEADERSHIP

NextGen Debaters India | *International Youth Debate & MUN mentorship origination* | *Co-Founder* 2024 – Present

- Partnerships with the University of Melbourne, the Eurasian and Pan African Schools Debating Societies, and MIT Manipal
- Provides affordable, high-quality communication and public speaking training to students world-over; students have gone on to win international WSDC tournaments, MUNs, etc.
- 1,000+ students enrolled across Asia, Africa & Eurasia; 40+ volunteers, including expert WUDC and WSDC adjudicators
- Invited by the Nigerian Ministry of Education to run a 10-day WSDC boot camp for 15 nationally selected debate trainers
- Conducted a 15-day boot camp for the Rwandan National Debating Society to train its national debate teams 2026

DAIS Debate Club | Co-Founder & Club President

2023 – Present

- Co-founded DAIS's first competitive debate club/program in Grade 9; trained 50+ peers
- Won the All-India Neerja Modi National Debating Tournament (3 Best Speaker Awards)
- DAIS Inter-House Best Speaker, 2 consecutive years
- Multiple wins at Everest, Paris, and Papillon WSDC, etc. with international top-speaker awards

2024

PATENTS

Intern, MantaTech LLC | Co-inventor on a filed US patent for a medical device enabling real-time pre-colonoscopy readiness assessment using optical imaging, colorimetric, and turbidity sensing

2025

Smart Trampoline | Design and development of a closed-loop safety control system using sensor fusion and deep learning for real-time injury prevention; filed for Indian patent

2025

RESEARCH PAPERS & PUBLICATIONS

- "Practical applications of the Fourier analysis to identify pitches and synthesize sounds in music" - Harvard Journal of Emerging Investigators Publication 2025
- Best Paper Award, "Systematic Review of AI-Based Therapeutic Music Generation Systems," FICTA Springer London 2025
- "Development of a Non-Invasive Device for Detection of Troponin-I as a Predictive Biomarker for Heart Failure" - IEEE journal 2025
- "AI and Healthcare: Exploring AI's Role in Reducing Healthcare Costs and Improving Efficiency" - accepted for publication in JSR 2026
- Extended Essay (IB Math AA HL): Applications of the Laplace Transform to solving second-order differential equations
- Math AA HL Internal Assessment: Optimizing the reliability of a system by comparing parallel/series arrangements and sum of components, using Gamma distribution (Reliability Engineering)

PUBLIC POLICY

InnovaPolis Youth Advisory Council Fellowship (selected) | Collaborating with the Canadian government, UNESCO, and UNDP Youth Co:Lab Asia-Pacific; leading India launch of initiatives

2025 – 2026

Trilegal Internship | Authored AI-regulation and CSR-policy reports in the Internet Governance vertical

2024

AI in Education | Policy Paper, Indian School of Public Policy: Why AI-Driven Automation Makes Communication Skills the New Employability Currency and How AI Can Help Build Them

2026

ROBOTICS

FTC Captain (x2) & FRC Programming & Strategy Captain | DAIS FTC Team Matrix, FRC Team Elev8

2021 – Present

- FTC National Jr. Dean's List Award for demonstrating strong leadership and commitment to FIRST and STEM, making meaningful individual contributions to team's success, inspiring and motivating peers 2023
- FTC: Asia-Pacific Open Winning Alliance, Inspire & Innovate Awards; FRC: Regional Winners and Creativity Award at Worlds
- Fundraised US\$10K+ to mentor 9 NGO FTC teams, including all-girls and hearing-impaired teams
- Launched a self-initiated STEM peer-to-peer learning program at DAIS, mentoring 250+ students in Grades 3–5
- DAIS STEM representative at the G20 Robotics Showcase and the IB Festival of Hope, presenting to 31 global IB heads and the IB Director General, and at Kala Ghoda (20,000+ attendees)

DESIGN THINKING INITIATIVE

DAIS TechSocioPreneurship Club | *Co-Founder*

2025 – Present

- Introduces younger students to design thinking, prototyping, and business fundamentals
- Mentored students through a full year-long program - from ideation to prototyping to a final business showcase
- Encourages students to identify problems, build solutions, and consider social and commercial impact together

SCHOOL COUNCIL LEADERSHIP

Student Council Coordinator | *Grades 9 (Vice) & 11*

- Position in the school's 4-member core council

MUSIC & PERFORMING ARTS

Vocalist & Pianist; Dramatics

2015 – Present

- London College of Music — Vocals, Grade 8, High Distinction
- London College of Music — Classical Piano, Grade 7, High Distinction
- Trinity College London — Speech & Drama, Grade 8, High Distinction
- ABRSM Music Theory — Grade 5, 100/100
- Merit-based performer at NCPA Mumbai
- 6 original compositions as an independent artist
 - Semi-finalist twice in UK Songwriting Contest
- Certified in Music Wellness and Music Production, Berklee College of Music; applying therapeutic sound design and production techniques to SonicSerenity
- Member, Indian Music Therapy Association

2023, 2024

SKILLS & INTERESTS

- Web & App Development
- Mathematics & Data Analysis
- Advanced Calculus Research
- Coding – Python, Java, C++, SQL, HTML, CSS
- Computer Aided Design (CAD)
- Digital Signal Processing
- Embedded systems
- Robotics
- Advanced PLC (Programmable Logic Controller)
- AI/ML (NLP, Computer Vision, Generative AI)
- Academic Writing
- Public Speaking
- Music Composition