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Build climate resilience

By linking climate science with real-life challenges, colleges can turn awareness into action and create a generation ready to protect their future

Pavithra M.B.

When the monsoon turned merciless last December, a government school in North Chennai saw its classrooms sink under waist-deep water. A student said, "We knew the chapter on floods by heart but not what to do when the water came for us." That single sentence is a mirror to our education system; overflowing with facts, but starved of resilience. Their syllabus covered the water cycle, but not the cycle of neglect that made their house flood year after year. Environmental education must evolve – from moral science to moral responsibility. Posters proclaim "Save the Earth", but students are rarely taught to how to do so.

Across India, floods drown schools, heatwaves close universities, and smog turns morning assemblies into health hazards. Yet, for most students, climate change remains an annual essay topic, not a lived curriculum. Environmental education in its current form often ends where the examination does. What we lack is not awareness but the kind of awakening that connects climate science with constitutional rights, ethics, and daily choices.

Civic necessity

The National Education Policy (NEP) 2020 speaks of "environmental awareness" and "sustainability at every level," but in practice, ecology remains a polite elective, not a civic necessity. Students can graduate in any discipline without ever confronting questions such as Who bears the cost of climate change? Whose lands are flooded so that cities may breathe? Whose voices are drowned when development advances?

Environmental rights are not a footnote in civics textbooks; they are the frontline of justice. When disasters strike, it is the poor, the rural, the women, and the children who lose first and rebuild last. Teaching climate resilience, therefore, is not about recycling drives and plantation days. It is about nurturing empathy, responsibility, and civic courage.

Around the world, education systems are awakening to this truth. In Italy, climate education is compulsory across grades, woven into Literature, Science, and History. In New Zealand, indigenous Maori wisdom anchors the climate curriculum, linking stewardship with heritage. Finland conducts "climate drills" alongside fire drills; Japan ties tsunami drills to moral education; Rwanda's eco-clubs reforest hillsides. These are not electives but essentials that produce a generation that sees sustainability as survival, not symbolism.

Promising initiatives

India, too, has sparks of promise. Kerala's Flood Literacy Programme, Tamil Nadu's Green Campus Initiative, and Delhi's Eco-Clubs show what happens when policy meets participation. The challenge now is to weave environmental rights into every discipline: Law, Economics, Sociology, even Engineering. A Commerce student must learn that corporate responsibility extends beyond profit margins to carbon footprints. A lawyer must see that justice is incomplete without environmental equity. A scientist must measure innovation by sustainability, not novelty.

In Chennai, students at an engineering college built a low-cost flood-alert system using recycled sensors after Cyclone Michaung. What began as a class project became a life-saving tool. That could well be the manifesto for a new age of learning, where climate literacy becomes civic literacy. In Kerala, students formed an "eco-justice club" after the 2018 floods, lobbying for safer housing in their panchayat. That is education in its truest form; not information, but transformation.

Physics can teach energy justice, Economics can teach carbon equity, and Literature can explore eco-feminism through poetry and protest. The goal is not to add another subject, but to infuse every subject with the consciousness of a warming planet. Schools and colleges should introduce "resilience literacy" – teaching students to interpret weather warnings, manage resources, and understand local ecosystems. Equally vital is mental resilience. Amid headlines of fires, floods, and extinction, the young experience "eco-anxiety." Education must turn worry into agency.

The UN SDG 13 on Climate Action and SDG 4.7 on Education for Sustainable Development urge nations to merge justice, rights, and sustainability. The NEP 2020 gives us the framework; what remains is imagination. Let our classrooms become laboratories of empathy where sustainability is not memorised, but lived.

Teaching the young to conquer the world while their world collapses is not progress. It is time our classrooms stop treating Nature as a backdrop and recognise it as the protagonist. Climate resilience will take root when a child plants a sapling and knows why it matters; when a teacher pauses a lesson on the water cycle to ask, "Whose right is clean water?" When education begins there, sustainability ceases to be a slogan and becomes a way of being.

The writer is Associate Professor, PG Department of Human Rights and Duties Education, Ethiraj College for Women, Chennai.

SCHOLARSHIPS

CBSE Merit Scholarship Scheme
An intiative of the CBSE.
Eligibility: Indian nationals and female students in Class 11 or 12 in a CBSE-affiliated school, where tuition fee is not more than ₹3,000 per month, and have scored 70% or more in the first five subjects in the class 10 exam.
Rewards: ₹1,000 per month for two years.
Application: Online
Deadline: October 23
www.b4s.in/edge/CMSC2

L'Oréal For Young Women in Science Programme
An intiative by L'Oréal India
Eligibility: Girls who have secured at least 85% in Class 12 (Science Stream) and are pursuing a UG degree in a science-related field or PG students with at least 60% in the undergraduate degree and are pursuing PG programme in Technology, Science, Pharma, Life Sciences, Biotechnology and so on; annual family income should not exceed ₹600,000.
Rewards: ₹62,500 for UG students; Up to ₹100,000 for PG students
Application: Online
Deadline: November 3
www.b4s.in/edge/LIS6

Colgate Keep India Smiling Scholarship
An initiative of Colgate-Palmolive (India) Limited.
Eligibility: Indian students in any of Bachelor of Dental Surgery (BDS) or Master of Dental Surgery in a recognised institute who have scored at least 65% marks in class 12 and have an annual family income not exceeding ₹800,000.
Rewards: ₹75,000
Application: Online
Deadline: November 9
www.b4s.in/edge/CKISSP7

Courtesy: buddy4study.com

Admissions

IIT-Kanpur invites applications for its online M.Tech., M.Sc., and PG Diploma in Wireless Networks and Machine Learning, RF Engineering, Microelectronics and VLSI; Economics and Data Analytics; AI and ML, Cyber Security, and Renewable Energy Technologies.
Eligibility: 5.5 CPI or 55% in UG Valid score in GATE, JAM, CEED, CAT, GRE, GMAT or IIT-Kanpur's online entrance test.
online.iitk.ac.in

Build a solid foundation

Uncertain about your career options? Low on self-confidence? This column may help

OFF THE EDGE
Nandini Raman

I finished B.E. Civil Engineering in 2023 and worked for a year. I resigned because I couldn't prepare for the UPSC. I would like to do other courses as a backup. I thought of B.Sc. Criminology but some say it doesn't go with my degree. What other options do I have? Karshi

Dear Karshi,

Doing B.Sc. Criminology now is a significant pivot. Why do you want to do this course? Are you willing to invest another three years when you already have a valuable Engineering degree? Consider staying within Civil Engineering and exploring related or new fields that offer shorter course durations or postgraduate programmes. Your degree, combined with a year of experience in steel detailing, provides a solid foundation. Look at enhancing your profile and leveraging your credentials.

Consider becoming software proficient in BIM, Structural Analysis Software, GIS, and Project Management Software. Certifications and short-term courses in core disciplines like Quantity Surveying and Estimation, Construction Project Management, Quality Assurance or Control, Structural Design, Environmental Engineering or Sustainable Construction, and Geotechnical Engineering will open doors to better-paying, more diverse roles within your domain. An MBA or a PG Diploma in Project Management will allow you to transition into management.

Beyond the UPSC CSE, look at UPSC Engineering Services Examination, SSC Junior Engineer exams or State PSC Assistant Engineer or Junior Engineer exams or take the Graduate Aptitude Test in Engineering for recruitment in public sector undertakings or M.Tech. admissions.

I have a PG in Advertising and PR and want to study further. I may want to get into teaching later. What are my options? Adithi

Dear Adithi,

Your degree gives you a strong foundation in communication, brand building, and strategic messaging. While a PhD. is the traditional route for a full-fledged academic career, you can explore taking the UGC National Eligibility Test (NET) to become an Assistant Professor, and qualify for the Junior Research Fellowships (JRF) in Indian universities and colleges. You can also consider a PG Diploma in Teaching or Education to equip yourself with the pedagogical skills required for teaching.

Other options include an MBA specialising in Marketing or Brand Management or a Master's in related fields like Mass Communication and Journalism, Digital Marketing or Communication, Media Studies, UX/UI Design or Human-Computer Interaction (HCI). There are also specialised industry focussed programmes such as Advanced Digital Marketing and Analytics, Crisis Communication Management, Brand Strategy and Management, Integrated Marketing Communications (IMC) and Event Management and Experiential Marketing.

Try to gain relevant industry experience and try working as a freelance PR consultant, content strategist, or digital marketer. This will build a portfolio, allow you to network, and showcase your practical skills.

I am in Class 12 (PCMB) and want to transition towards a career in Law. I tried my best to prepare for JEE, but the subjects did not interest me. I was bullied for being inattentive and scoring poor marks. My resources and opportunities are limited. I sometimes find myself questioning my potential and place in this field. Abhinav

Dear Abhinav,

It takes courage to acknowledge that a path is not right for you. Your feelings and choices are valid. Your performance in JEE does not define your intelligence or potential for Law. I hope your decision to pursue Law comes from a genuine love for the subject.

You can do a five-year integrated B.A. LL.B. or B.B.A. LL.B., or B.Sc. LL.B. Focus on the Common Law Admission Test (CLAT), as it decides admissions to 24 out of 25 National Law Universities (NLUs) and other reputed private law colleges in India. The All India Law Entrance Test (AILET) is for admission to National Law University, Delhi, specifically. Other exams to consider are SLAT (for Symbiosis Law Schools), LSAT India (for Jindal Global Law School and others), and various university-specific exams (Christ University, IP University, BHU, AMU).

Understand the syllabus and the exam pattern thoroughly, get the right study material, and create a disciplined study plan. Look after your mental well-being and get professional support if needed to let go of the past negative experiences. The bullying and academic struggles do not define you.

I am in Class 12 (PCM) but strongly interested in a B.A. (Hons) History at Delhi University. Do students from a science background face any academic or admission-related challenges? What will my future opportunities be? Swaroop

Dear Swaroop,

Genuine interest is the crucial factor for success and satisfaction in any field. Develop core skills like creative thinking and analysis, research, problem solving, communication, empathy and contextual understanding, as these are of high value and transferable to a variety of industries and sectors.

A History degree from a top DU college will build a strong foundation for many careers. You will have to take Common University Entrance Test (CUET-UG). You will have an initial adjustment period transitioning from the sciences to the humanities, as History involves extensive reading, critical analysis of texts, essay writing, and developing arguments.

Career opportunities are diverse and rewarding. You could be a government servant via the UPSC CSE or the State PSC exams. Other avenues include working in museums, archives and heritage management, journalism and media, content writing, tourism or academia and research.

Disclaimer: This column is merely a guiding voice and provides advice and suggestions on education and careers.

The writer is a practising counsellor and a trainer. Send your questions to eduplus.thehindu@gmail.com with the subject line Off the Edge


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Create a culture of honesty

Educational institutions must involve students, faculty, and administrators to nurture and cultivate ethical behaviour

Bhupendra Bahadur Tiwari

Today, marks and grades are often viewed as indicators of success and future stability and the pressure on students to excel can be immense. Unfortunately, this sometimes leads students to make unethical choices during exams. Cheating is often perceived as a personal failing but, in reality, it is a symptom of a system that emphasises results over learning, competition over collaboration, and punishment over support. Understanding the underlying causes of academic dishonesty is essential for institutions that aim to cultivate integrity and a culture of trust.

Proactive approach

Students who resort to cheating are not always driven by a desire to deceive. Many face overwhelming academic workloads, fear of failure, and societal or parental expectations that prioritise marks above all else. In these circumstances, they may see cheating not as a betrayal of values, but as a necessity to survival. Institutions, on their part, often respond with stricter surveillance and harsher penalties. While rules are necessary, this punitive approach rarely addresses the root of the problem. What is needed instead, is a shift in mindset: from enforcing rules to creating environments where ethical behaviour is nurtured and supported.

Building a culture of honesty in educational institutions must be a collective effort involving students, faculty, and administrators. Trust cannot be commanded; it must be earned and sustained through consistent, transparent practices. When students are included in conversations about academic ethics, they feel a sense of ownership and responsibility. Universities that implement honour codes or ethical contracts provide a platform for students to commit to honesty, not out of fear, but from a shared belief in its value. Such declarations, when actively supported by the institution, become more than symbolic and foster a deeper culture of accountability and respect.

Faculty members also play a central role in this transformation. When teachers demonstrate fairness, empathy, and clarity in their expectations, students are more likely to respect the learning process. Instead of relying solely on high-stakes, memory-based exams, faculty can explore creative assessment methods that focus on understanding, analysis, and real-world application. Open-book tests, take-home assignments, project-based learning, and oral exams are examples of evaluations that minimise opportunities for dishonesty while promoting deeper engagement. These approaches not only discourage cheating but also prepare students for the complexities of real-life problem solving.

Equally important is the cultivation of peer support and peer accountability. Students often listen more openly to fellow students than to authority figures. Mentorship programmes, where senior students guide juniors on exam preparation, stress management, and ethical decision-making, can create safe spaces for dialogue. When students see honesty being modelled and celebrated by their peers, it becomes part of the community's values rather than just a rule to follow.

Awareness and support

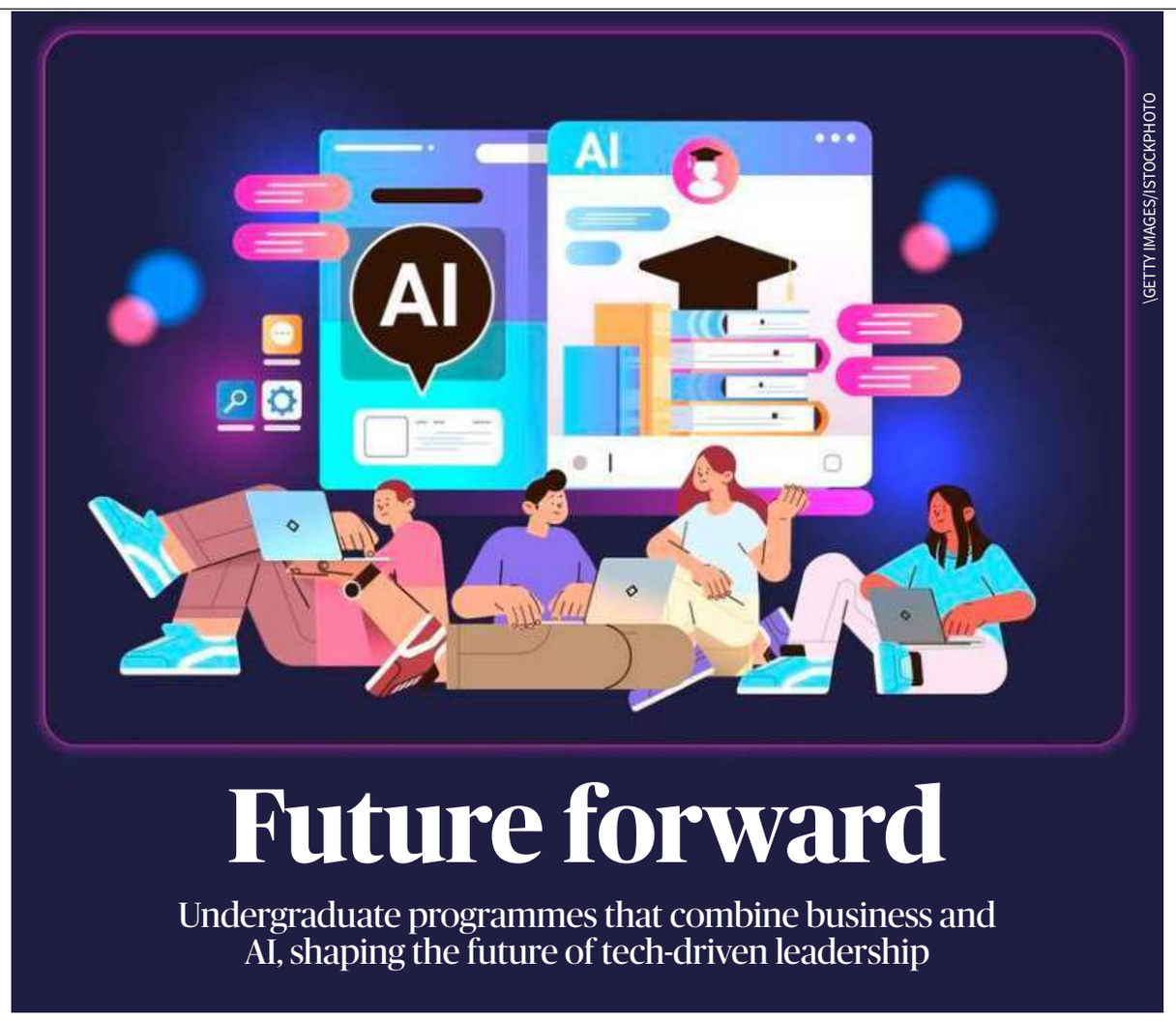
While preventing dishonesty is the goal, the response to unethical behaviour must also be handled with care. Focusing only on fear-based methods can ultimately prove ineffective. Instead, institutions should invest in prevention by promoting awareness and offering support. Regular workshops, seminars, and open discussions about ethics, academic pressure, and coping mechanisms can help students navigate challenges before they become crises. Furthermore, accessible academic counselling and mental health services can play a vital role in supporting students who are struggling, thereby reducing the temptation to take dishonest paths.

Ultimately, the aim of education is not merely to produce high scorers but to nurture responsible, ethical citizens. Exam ethics, therefore, should not be confined to the exam hall but be woven into the fabric of the educational experience. When students learn to value honesty not just as a rule but as a way of life, they carry that integrity into their professional and personal lives. Institutions that prioritise character as much as competence prepare their students not just for jobs, but for meaningful, trustworthy contributions to society.

In the long run, creating a culture of honesty is about shifting the narrative: from punishment to prevention, from fear to responsibility, and from performance to growth. By doing so, educational institutions can uphold the true spirit of learning and empower students to succeed with knowledge and integrity.

The writer is Professor and Director, School of Economics & Commerce, CMR University, Bengaluru.

CAREER CUES
Richa Dwivedi Saklani



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Future forward

Undergraduate programmes that combine business and AI, shaping the future of tech-driven leadership

Artificial Intelligence (AI) is transforming how the world does business and companies increasingly need professionals who can combine management insight with technical fluency. This intersection of business and AI is creating a new kind of undergraduate programme that combines Business and AI.. Below is a curated look at some such courses.

Asia

Symbiosis Artificial Intelligence Institute, India
The BBA in Artificial Intelligence (Honours/ Honours with Research) blends business strategy with AI fundamentals. Students explore data-driven decision-making, algorithmic marketing, and AI ethics preparing graduates for roles at the intersection of AI applications, digital innovation, and business leadership.

Lovely Professional University, India
The BBA in Artificial Intelligence, Information Technology, and Business Analytics is an interdisciplinary degree that merges management education with analytics and information technology teaching students to deploy AI and data systems to optimise real-world business processes. It is ideal for those targeting roles in data consulting, business analytics, or product management.

Chitkara University, India
The BBA in Artificial Intelligence in Business offers 2+2 Pathway with Arizona State University, the U.S., allowing students to begin their studies in India and complete them in the U.S. It also offers exposure to AI in entrepreneurship, marketing analytics, and international business.

BITS Pilani Digital, India
The B.Sc. in Artificial Intelligence and Data Science is offered in a flexible online format and provides a foundation in AI, ML, and Data Science. Ideal for those who want to combine technical AI expertise with business applications without committing to a full-time on-campus programme.

Mohamed bin Zayed University of Artificial Intelligence, U.A.E.
The B.Sc. in Artificial Intelligence (Business Stream) integrates management, data governance, and AI entrepreneurship.

Europe

EU Business School, Spain, Switzerland, Germany
The three-year English-taught B.A. in Artificial Intelligence for Business offers a balance of AI theory, product design, and ethical leadership and an understanding of how automation, robotics, and machine learning influence corporate decision-making. Its international campuses in Barcelona, Munich, and Geneva provide strong cross-cultural business exposure.

ESSEC Business School, France
The B.Sc. in Artificial Intelligence, Data and Management Sciences combines data engineering, business analytics, and management principles and prepares graduates to make strategic decisions using AI tools while understanding their ethical and societal implications.

La Salle Campus Barcelona, Spain
The Double Degree in Business Intelligence and Data Analytics and Management of Business and Technology develops expertise in data processing, analytics, and technology management and combines academic theory with hands-on projects, emphasising leadership in AI-enabled decision-making.

UBI Business School, Belgium, Luxembourg, Spain
The English-taught B.Sc. in Business with Specialisation in Management of AI in E-Commerce and Retail Marketing focuses on using AI to reshape retail and e-commerce and explores customer analytics, predictive modelling, and business automation.

SMK College of Applied Sciences, Lithuania
The Bachelor in Future Business and Artificial Intelligence emphasises the technical, social, and creative dimensions of AI in business. Students study innovation management, AI ethics, and data-based decision-making, preparing for leadership roles in both startups and multinational firms.

ESADE Business School, Spain
The five-year Double Degree in Business Administration and Business and Artificial Intelligence develops "hybrid profiles" skilled in business strategy, data analytics, and AI-driven management. Students engage in real-world projects and internships that bridge technology, entrepreneurship, and global business leadership.

The U.S.

USC Marshall School of Business
The B.S. in Artificial Intelligence for Business is a collaboration between USC Marshall and the Viterbi School of Engineering and blends business fundamentals with AI engineering. Students learn machine learning, human-computer interaction, and smart contract technologies alongside marketing and finance.

Arizona State University
The B.S. in Artificial Intelligence in Business focuses on deploying AI for real-world business value; from predictive analytics to operational optimisation and emphasises innovation and practical learning. Students are trained to lead AI transformation projects in global organisations.

Nazareth University
The interdisciplinary B.S. in Business, Artificial Intelligence, and Innovation nurtures project leaders who understand both technology and its human impact. Courses in AI ethics, innovation management, and machine learning help students develop the mindset of ethical innovators.

University of Texas at Dallas
The B.S. in Business Analytics and Artificial Intelligence emphasises advanced analytics, predictive modelling, and the use of AI for business decision-making. Students gain the quantitative and technical skills to design AI-based solutions for corporate challenges.

As industries embrace digital transformation, the leaders of tomorrow have to be fluent in both spreadsheets and algorithms.

With inputs from Eeva Pachhapur

The writer is Founder and CEO, Inomi Learning, a Gurugram-based career and college guidance firm. Email: info@inomi.in

YOUNG ACHIEVERS

Lighting up lives

A school student writes about his innovative project Hydrosan that won the CREST Gold Award from the British Science Association earlier this year

Kushagra Aditya Jha

Growing up in Dehra Dun, I spent my early years in the Tehri Garhwal region and often visited the massive Tehri Dam. I would marvel at how this engineering feat generated over 1,000 MW of electricity, lighting up cities across North India. Yet, ironically, villages in and round Tehri and the remote Himalayas remained in darkness. Later, in Dehra Dun, I found areas where electricity was irregular, voltage fluctuations were constant, and affordable backup systems were non-existent. During monsoons or peak demand, outages left households vulnerable. Reliable electricity was not just an engineering challenge but also an economic one, which left marginalised communities behind.

This lived experience sparked my determination to find a solution. Around the same time, I noticed that, thanks to sanitation initiatives, flush toilets were becoming more common. With every flush, untapped energy being was wasted. What if that daily water flow could be harnessed to generate reliable, micro-scale electricity?

Turning that thought into reality wasn't easy. My first prototype was a miniature turbine integrated into the flush tank. Each flush spun the turbine and generated electricity. But flush cycles were irregular, power was generated for a short burst and then cut off until the next use. For communities already dealing with unreliable electricity, this inconsistency made the system useless.

I went back to the drawing board. After many trials, I included a modification: a small pipe connected to the flush tank would allow a controlled trickle of water to run through the turbine, even between flushes, allowing it to spin consistently and charge lithium- ion batteries that could store energy for later use. This could be used to power LED lights and USB charging ports. Currently, 20 flushes can charge a 4 W 2000mAH power bank but, with better prototyping on output/storage, this can be scaled up.

Wide application

While HydroSan was developed with Uttarakhand's unique challenges in mind, its applications are not limited to India. The innovation aligns directly with two United Nations Sustainable Development Goals: SDG 7 (Affordable and Clean Energy) by expanding access to reliable electricity, and SDG 13 (Climate Action) by offering a renewable, low-cost solution that reduces dependence on fossil fuels. HydroSan is designed to be affordable and accessible. It uses off-the-shelf, locally available components, making it easy to repair and replicate. It's retrofit-friendly, fitting into existing flush systems without requiring expensive modifications. It's scalable, as useful in a small household as in a school or public sanitation facility and, most importantly, it's sustainable. By using water flow that already exists in every home, HydroSan creates clean, and renewable energy.

Earlier this year, HydroSan earned the CREST Gold Award for sustainability and innovation, and was validated by the Uttarakhand Council of Science and Technology (UCOST). The technology is about to be patented and has been deployed in a village in Tehri for testing and further improvements. Hydrosan could also be an important tool for decentralised energy generation in places where we have heavy human footprint like malls, public toilets and so on.

HydroSan began with a simple observation, grew through failure and redesign, and stands on the brink of creating real impact today. My dream is that decentralised clean energy solutions using flush water or any form of wasted water will pave the way further for further research and development. HydroSan is a work in progress and we continue to refine the design to ensure smoother, more reliable functioning. Every flush of water holds potential. With HydroSan, I believe we can turn that potential into power, and light up lives, one household, one community, and even one border post at a time.

The writer is a Class 12 student of Sanskriti School, New Delhi

Hope and health

The India winner of the James Dyson award 2025, on how he created JivaScope

Tunir Sahoo

Innovation has never been a sudden inspiration for me. It's a mindset rooted in the values my parents instilled in me: discipline, curiosity, and persistence. At 15, I was selected under the Catch Them Young programme for developing a crop-protection solution to help farmers safeguard their crops from wild animals. That experience taught me that innovation can directly improve lives. Since then, solving real-world problems through design and technology has been my guiding force.

During my undergraduate years, I discovered the James Dyson Award and I began following it closely, reading the stories of past winners, and finding inspiration in James Dyson himself. His journey of failing hundreds of times before finally succeeding became a personal benchmark for perseverance. From then on, it was my dream to not just build innovations, but to stand on that stage one day.

At a field visit

That dream became my compass during my MBA at IIM-Kashipur. When I went on a field visit to rural Bihar, I encountered a moment that crystallised my purpose. I saw a father holding his son, who was struggling to breathe. The doctor suspected pneumonia but, with no diagnostic tools, he was powerless to confirm it. The nearest facility was hours away and the family couldn't afford the journey. That moment of helplessness stayed with me. Over the next weeks, I spoke to more than 60 rural doctors, all of whom voiced the same frustration: critical diseases were being diagnosed too late because there were no reliable, affordable screening tools.

That's when JivaScope was born: an AI-powered, affordable, and durable device designed for early screening of respiratory and cardiac conditions, simple enough for anyone to use, anywhere. From the beginning, I knew JivaScope was not just an innovation; it was the kind of problem-solving solution the James Dyson Award stood for. That thought kept me going when the challenges became overwhelming.

Preparing for the award was as rigorous as building the device itself. I worked closely with my mentors at IIM-Kashipur to refine the problem framing, structure impact metrics, and iterate prototypes. I ran pilots, stress-tested the device, and gathered feedback directly from rural doctors. My peers helped me sharpen my pitch to meet international standards. Every step of preparation felt like a rehearsal for the Dyson philosophy: persistence, simplicity, and user-centric design.

Post the win

Winning the James Dyson Award is far more than a recognition. It is the fulfilment of a personal dream I have nurtured for years. Personally, it feels surreal to join the ranks of innovators I once admired from afar. Professionally, it has uplifted my journey giving JivaScope global visibility, credibility, and access to mentors, investors, and potential partners. It has transformed JivaScope from a backpack prototype into a serious contender for scale.

As I now prepare to represent India in the international round, my focus is on making the prototype more robust, compiling field data, and telling the human stories behind JivaScope. More importantly, I carry forward James Dyson's own philosophy that failure is a stepping stone, that persistence pays off, and that design can truly change lives.

My ultimate goal is to ensure that JivaScope, born from a moment of helplessness in rural Bihar and shaped by the dream of the Dyson Award, fulfils its promise to bring hope and health to millions who need it most.

The writer is pursuing Master's in Business Management at IIM-Kashipur

Dreams take flight

How a team from Nitte, Karnataka, won the Boeing National Aeromodelling Competition 2025

Pradyumna Bhat

There is a unique thrill in watching a machine you've built take flight – rising into the sky just the way you imagined. Built after months of trial and error, our model aircraft flew smoothly and dropped its payload right on target. That wasn't just a competition win. It was proof that our ideas, long hours of work, and persistence could truly take flight. It was also the realisation of a dream for my team and I: to be part of India's next generation of aerospace engineers.

This year, we – Team Krishna from Nitte Mahalinga Adyanthaya Memorial Institute of Technology (NMAMIT) – won the Boeing National Aeromodelling Competition. As much as the trophy means to us, being part of a platform that has been shaping aerospace talent for more than a decade meant something greater. For 10 years, this competition has served as an incubator for ideas, a testing ground for engineering rigour, and a launchpad for many aerospace professionals and enthusiasts.

Defining experience

Boeing National Aeromodelling for us was never just about model planes but about discipline, precision, and resilience. Every failed test flight taught us to refine our design. Every round – from the zonal(s) to the finale – tested our technical skills and teamwork under pressure.

Our team – pilot Ashik, co-pilot Adarsh, and I – came together through a shared passion for flying machines. Long after classes ended, we often debated on designs and worked on components. Our challenge was to build a fixed-wing aircraft capable of carrying and accurately airdropping two water bottles within a small target zone. The project pushed us to apply our knowledge of aerodynamics, structural optimisation and payload-release systems. The highlight was not only meeting the challenge but also meeting people. Boeing's engineers didn't just judge us; they listened, challenged our design thinking abilities, and showed us what it takes to build for the aerospace industry.

To top it all, the announcement that all finalists would have the opportunity to join Boeing's Apprenticeship Programme was a defining moment. It felt like we'd moved from the workshop bench to the professional hangar, from sketches on paper to aircraft that can serve real missions. As much as this competition tested our technical skills, it also gave us a glimpse into the demands of the industry: precision, teamwork and the ability to deliver under pressure.

Beyond the professional opportunities, this win meant something deeply personal. The outcome reflected the collective effort of mentors who guided us, friends who encouraged us, and an institution that gave us the space to dream. Winning this competition has given me confidence but, more importantly, shown me what is possible when passion meets opportunity. I will carry this experience with me: a reminder that dreams do take off when you put in the work.

The writer is the Team Captain, Aero Club, Nitte Mahalinga Adyanthaya Memorial Institute of Technology.