DHAKA THURSDAY APRIL 16, 2026, *BAISHAKH 3, 1433 BS* | A PUBLICATION OF The Daily Star

CAMPUS

SCAN THE QR CODE TO ACCESS CAMPUS ONLINE

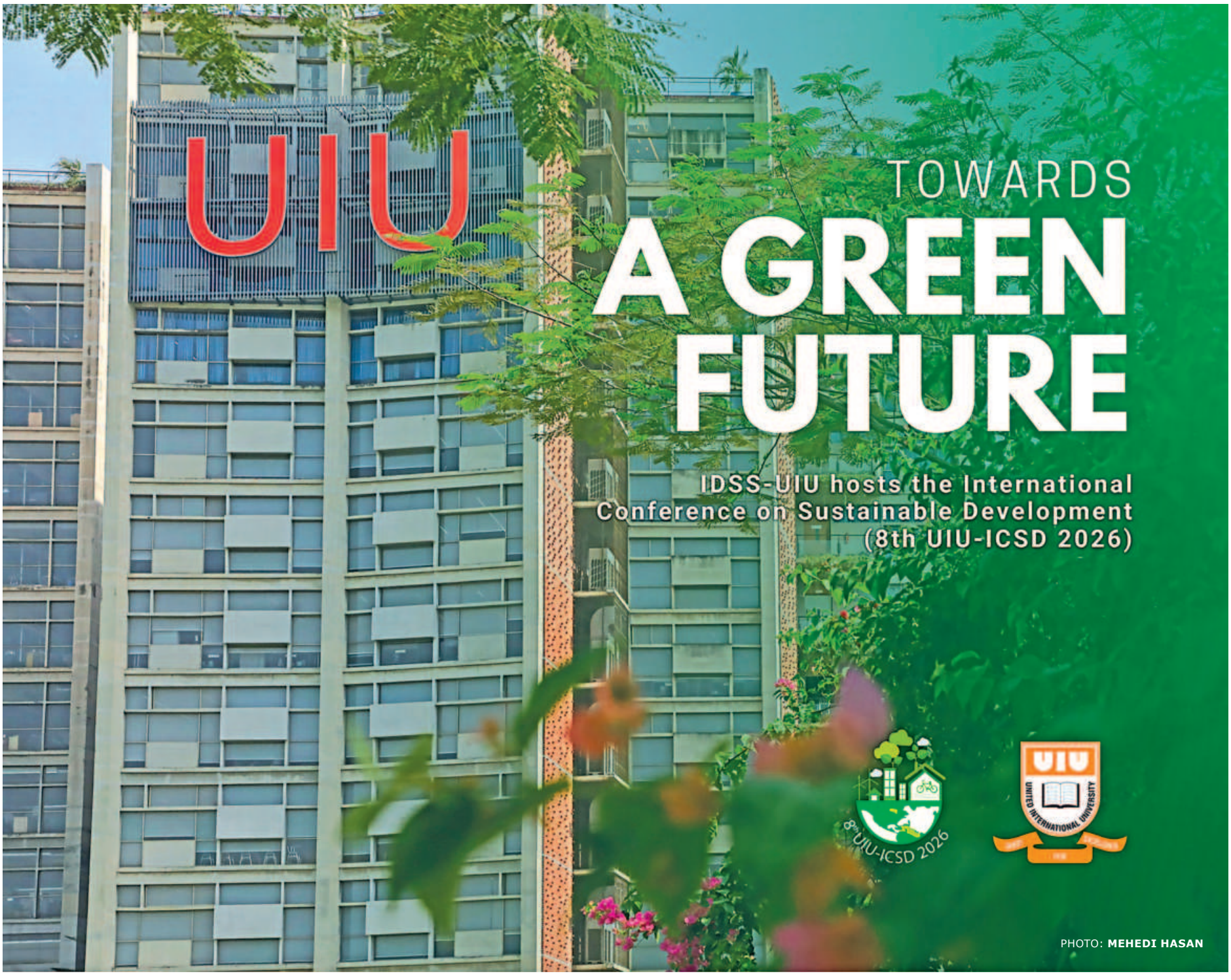

PHOTO: **MEHEDI HASAN**

MOVIES

SHACKLED TO ITS TONE

Project Hail Mary falls short despite its charm

MIAZEE ABRAR

Project Hail Mary has been widely praised for its optimism, for being "hopecore", and there's undeniably plenty here that is fun. It's lively and carried by an effortlessly charismatic Ryan Gosling. It follows Ryland Grace, who wakes up alone in space with no memory of how he got there, only to realise he's on a mission to stop the sun from dying and wreaking havoc on life on Earth. The film is engineered to please, and for long stretches, it succeeds. But that very impulse to constantly please becomes its biggest limitation.

The film feels locked into its own tonal box. When Grace first encounters an alien spacecraft, the film rushes to avoid any real sense of awe or terror. Instead of a moment of brief existential rupture, it ends up robbing both Grace and the audience of a rollercoaster of emotions.

The fragmented flashbacks also seem untethered to sensory triggers or internal struggle, which might have worked as non-linear storytelling. But because Grace's amnesia is initially framed with high stakes,

the film's failure to clarify what he gradually remembers versus what is being told to us creates a disconnect between his journey and the viewer.

The relationship between Grace and his alien buddy, Rocky, is the heart of the story, and it mostly works. However, if a story hinges on a bond, that bond needs more meat to it than banter. It needs evolution that reveals deeper dimensions of each character beyond anecdotes, without which the emotional payoffs feel muted. This also manifests as a pacing issue. Exceeding two and a half hours, the film doesn't significantly deepen the inquiry into its central dynamic to justify its length.

Project Hail Mary has its share of emotional peaks and valleys, but they feel like checked narrative boxes rather than earned milestones. The film is reluctant to sit with its darker moments. Gosling sheds tears, and composer Daniel Pemberton's score soars, but these elements feel like all-too-visible hands of storytellers trying to pull at heartstrings.

There is nothing wrong with a spacefaring buddy comedy being just fun. But when a story places characters in situations that demand a deeper interrogation of theme and psyche, honouring those needs doesn't mean shifting into "doom and gloom". It simply means emotional honesty, which provides fuel for a story's eventual triumphs. Without it, grand gestures of sacrifice, swelling music, and cosmic imagery become mere shorthand to conjure awe out of thin air.

OPPORTUNITIES

WellDev: Quality Assurance (QA) Engineer

ELIGIBILITY

WellDev

More than 3 years of solid experience in software quality assurance, preferably in a software development environment.

Must have the ability to perform well in the functional automation testing process with Cypress, Playwright, Selenium. At least two years of professional experience.

Must have the ability to perform well in the performance automation testing process with JMeter or any other relevant tools/ technologies as required. At least two years of professional experience.

Visit welldev.io/careers to learn more

DEADLINE: APRIL 30, 2026

Editor & Publisher
Mahfuz Anam

Campus Editor
Faisal Bin Iqbal

Campus Team
Abir Hossain
Azra Humayra
Zabin Tazrin
Nashita

Photographer
Orchid Chakma

Graphics & Layout
TDS Creative Graphics

Production
Shamim Chowdhury

Send your articles, feedback, and opinion to campus@thedailystar.net
Find our content online at thedailystar.net/campus

STUDY ABROAD

Breaking down the university admissions timeline in Sweden

CAMPUS DESK

For students seeking to pursue their undergraduate or graduate studies in Sweden, it's important to keep your eyes on their central University Admissions website. This serves both as the admissions portal and a reservoir for all information related to Swedish universities, programmes, and degrees.

Typically, Sweden has two intakes a year, and the dates are the same for both undergraduate and graduate studies admissions. The intakes are for the Autumn semester, which typically begins in August or September, and for the Spring semester, which commences in January.

The application process is conducted in two rounds, the first of which is for international students, as it takes into account the timeline for acquiring residence permits and relocation. The second round is generally designated for Swedish students or students living in the European Union, European Economic Area, or Switzerland region.

DATES AND DEADLINES FOR INTERNATIONAL STUDENTS

Autumn Semester: The admission portals open for application in mid-October. For the studies commencing in Autumn 2026, the application portal was opened on October 16, 2025.

The last day to submit applications generally falls around mid-January. For Autumn 2026, the deadline for this was January 15, 2026. You have to select and rank your programmes within this time frame.

The last day to submit all your supporting documents will be late January to early February. For Autumn 2026, this date fell on February 2, 2026. This is also the deadline within which you must submit your application fees, which is typically SEK 900.

The results are published in late March. For the latest intake, the results were published on March 26, 2026 for master's programmes, and March 31, 2026 for undergraduate ones.

Note that most programmes commence with the Autumn semester, so this is the general timeline you must maintain if you're aspiring to study in Sweden.

Spring Semester: While most programmes begin with the Autumn semester, there are a handful that also have a spring intake. For the Spring intake, the application portal generally opens around early June. For Spring 2026, the application portal opened on June 2, 2025.

The last day to submit applications and rank your programmes will typically fall around mid-August, which was August 15, 2025 for Spring 2026.

Just like the Autumn semester, there's a deadline by which you must submit your application fees and all your documents. This falls in early September. For Spring 2026, this was on September 1, 2025.

The results are published in early October. Last year, the bachelor's results were published on October 2, 2025 and master's results on October 9, 2025.

TOP UNIVERSITIES IN SWEDEN

Rankings based on QS World University Rankings (published on 19 June, 2025)

LUND UNIVERSITY
Ranked 72 globally, Lund University has strong positions in subject areas such as environmental sciences, architecture, and finance and marketing, making it a top choice of international students.

STOCKHOLM UNIVERSITY
Stockholm University offers 75 master's programmes and three bachelor's programmes taught in English within science, the humanities, social sciences and law. It is ranked amongst the top 150 universities globally.

UPPSALA UNIVERSITY
Renowned as a comprehensive international research university, Uppsala is ranked among the top 100 universities in the world. The university grants its students access to high quality education, which is recognised both internationally and across Sweden.

KTH ROYAL INSTITUTE OF TECHNOLOGY
Boasting over 60 master's programmes in English along with a global ranking of 78, KTH offers their students world-class research opportunities in various technology and engineering fields.

CHALMERS UNIVERSITY OF TECHNOLOGY
Frequently rated as the best known as well as the best reputed university in the country, Chalmers has also secured top scores on learning in the International Students Barometer. It is ranked 165 globally.

PHOTO: **COURTESY**

SPECIAL FEATURE

TOWARDS A GREEN FUTURE

IDSS-UIU hosts the International Conference on Sustainable Development (8th UIU-ICSD 2026)

CAMPUS DESK

From April 11 to 12, the Institute of Development Studies and Sustainability (IDSS) at United International University (UIU) hosted the 8th International Conference on Sustainable Development (UIU-ICSD 2026) at the UIU campus.

Centred around eight key themes—education for sustainable development; poverty alleviation and sustainable livelihoods; sustainable agriculture and food security; energy transition; sustainable cities; waste management and circular economy; water, coastal, and delta governance; and climate change and adaptation—the conference aimed to address the critical gap between knowledge generation and Sustainable Development Goals (SDGs) implementation. Special emphasis was placed on water, coastal, and delta governance, aligning with the "Bangladesh Delta Plan 2100".

UIU-ICSD 2026 received about 550 research papers from Canada, the UK, the Netherlands, India, Nepal, the Philippines, and Bangladesh. Around 365 research papers were selected for presentation. The conference provided an inclusive platform for researchers, policymakers, and practitioners to strengthen the science–policy–practice interface through keynote sessions, panels, and interdisciplinary dialogue.

The inaugural ceremony of the conference was held on April 11. Neeltje Kielen, Delegated Representative, Water Affairs, Embassy of the Kingdom of the Netherlands in Bangladesh, was present as the chief guest in the inaugural ceremony. Dr Khairul Islam, Regional Director at WaterAid, South Asia Region, and Shreya Chakraborty, Country Focal Point, International Water Management Institute, Bangladesh, were present as guests of honour.

Prof. Dr Mashfiqus Salehin from the Institute of Water and Flood Management, Bangladesh University of Engineering and Technology (BUET), was present as the inaugural speaker. Prof. Dr Hamidul Huq, Director of the Institute of Development Studies and Sustainability (IDSS) and Convener of the 8th UIU-ICSD 2026, opened the inaugural session with a welcome and introductory address at the conference.

UIU Vice-Chancellor Prof. Dr Md Abul Kashem Mia presided over the inaugural ceremony. During his speech, he said, "The scope of this conference is to create an enabling platform for scientists, academics, policy-makers, development practitioners, and other stakeholders from home and abroad to share innovations, ideas and knowledge, and critical concerns on sustainable development. I firmly believe that the continuity of this conference series through 2030 will play an important role in tracking progress, improving partnerships, and enhancing accountability in the implementation of the SDGs."

Kielen said that everyone needs to work together to address global climate change and achieve the SDGs, noting that the conference will play an important role in advancing the SDGs.

UIU faculty members, officials, students, national and international sustainable development researchers, representatives from different universities and research organisations, national and international NGOs, and other distinguished guests were present at the inaugural ceremony. Following the opening ceremony and the plenary session, day one saw multiple parallel sessions. In these sessions, researchers presented papers aligned with the conference's eight themes.

On day two of the conference, parallel sessions ran from 9 AM to 2 PM. Following lunch, the closing ceremony began at 3:30 PM. Prior to that, *Campus* caught up with some of the organisers and participants of the conference to have a candid discussion on the conference and sustainable development itself.

For Salma Begum, a lecturer and research fellow at the IDSS, the conference was as much about process as it was about outcome. "We divided our tasks within the team, and I have been learning and growing throughout the process," she says. "These past four months have been a valuable learning journey for me. The teachers, students, participants, and volunteers all worked very hard to organise this conference. It's great to see such a collaborative environment."

Justin Fanoy, an MSc student from the Netherlands conducting research in the coastal areas around Khulna, participated in the conference to give something back and share the knowledge he had gained during his thesis data collection with other students and professionals in the field of sustainable development.

Jafar Ullah Khan, a student of environment and development studies at UIU, saw the conference as an opportunity to be more connected. Sumit Kumar Sen, from Khulna University, talked fondly about the conference, mentioning the large number of participants, the engaging sessions, excellent management, and a presentation on research conducted in Teknaf.

Justin further noted the high academic standard and the productive blend of student and professional research in the conference—a combination that allows theory and practice to coexist. Jafar emphasised the role of interaction, of conversations with faculty members and students from different institutions.

Sumaiya Chowdhury from Shahjalal University of Science and Technology (SUST) highlighted the quality of organisation and the insightfulness of the sessions. She found the organisation and management excellent and enjoyed being at the conference, mentioning how the people she interacted with helped her learn a lot.

PHOTOS: **COURTESY**

When asked how important it is for countries like Bangladesh to host such conferences related to sustainable development, Justin suggested that these discussions must not remain confined to academia; they must be implemented. Jafar framed it as a challenge, stating that it is a responsibility for young people in Bangladesh to engage more deeply with sustainable development and knowledge sharing.

During the closing ceremony, the special guests of the conference took to the stage to share their thoughts on the conference and sustainable development in general.

Alok Kumar Majumder, Director of Programme and Operations at RedOrange, applauded the significant volume of research presented at the 8th UIU-ICSD 2026. Dr Muhammad Ariful Islam, President of the Bangladesh Institute of Planners, reminded the attendees that planning is about making choices, and for those choices to matter, they must be practical.

Dr Farhana Ahmed, Director and Principal Specialist, Research Development and Training Division, Center for Environmental and Geographic Information Services (CEGIS), acknowledged the high academic standard of the presentations and pointed out that the real challenge was implementation. Juliate Keya Malakar, Executive Director of the Christian Commission for Development in Bangladesh (CCDB), said that the challenge is no longer data collection but action, highlighting the fact that understanding affected populations is key, and without that, knowledge remains abstract.

The conference chair, Dr M Rezwan Khan, Professor and Director, Institute for Advanced Research, UIU, expressed his great pleasure in seeing the presented papers address a fundamental question he once asked by an economist: whether development, by its very nature, is sustainable at all. By revisiting this core debate, he noted that the conference is tackling the most essential challenges of our time.

Lastly, during the vote of thanks, Prof. Dr Hamidul Huq framed the event as a collective initiative—one that generated new ideas while identifying emerging challenges. His announcement of the next conference, scheduled for February 2027, suggested that this is not a one-off event but part of an ongoing conversation.

UIU-ICSD 2026 successfully united researchers, policymakers, and practitioners around critical sustainability challenges. Moving forward, participants must transform these insights into tangible action—breaking institutional barriers, implementing evidence-based solutions, and developing meaningful collaboration.

ILLUSTRATION: **JUNAID IQBAL ISHMAM**

Dr Hamidul Huq on sustainable development and eight years of ICSD

PHOTO: **MEHEDI HASAN**

CAMPUS DESK

United International University (UIU) is marking a significant milestone with the 8th International Conference on Sustainable Development (ICSD). Behind this achievement lies a vision to transform how universities approach education and research.

Campus sat down with Prof. Dr Hamidul Huq, Director of the Institute of Development Studies and Sustainability (IDSS), UIU, and conference convener, to talk about sustainable development and how UIU is putting it into practice through research, education, and this ambitious academic conference.

Prof. Huq traces the ICSD initiative's roots to the UN's pivotal 1987 report, *Our Common Future,* saying, "The report argued for the redefinition of development into 'sustainable development', an approach that is friendly to both the natural and social environment while also boosting economic development."

The 2015 UN resolution on sustainable development created new educational imperatives, prompting UIU to integrate sustainability principles into its curriculum and assess their effectiveness through this conference.

The IDSS at UIU operates on a philosophy of knowledge-driven action. "The purpose of IDSS is to initiate empirical research and bring it into the classroom," Prof. Huq states. "If initiatives are based on empirical knowledge, they lead to responsible consumption. IDSS's mission is to make society responsible and knowledge-based."

The conference thrives on cross-sector collaboration, drawing participants from universities, NGOs, and consultancy organisations across South Asia and beyond. International experts bring comparative perspectives, while local policymakers, parliament members, ministers, and engineers from water development boards engage with research findings.

"Foreign experts who may not have much knowledge about Bangladesh, but may have seen similar problems elsewhere, come to our conference to learn and think critically about our challenges," says Prof. Huq.

This global-local exchange enriches discussions and strengthens solutions. The collaboration extends to students, who participate in research projects and fieldwork each semester. Faculty members from various universities contribute as session chairs and presenters, while graduate students deliver their own research findings.

Perhaps most significantly, the ICSD bridges academia and policy. A dedicated plenary session examines Bangladesh's ambitious "Bangladesh Delta Plan 2100", the country's century-long sustainable development roadmap. "We present critical analyses of both long-term and short-term plans, raise questions, and offer specific recommendations and suggestions," Prof. Huq explains. "In subsequent forums with the government, they sometimes adopt our recommendations, which translates into fruitful action."

Prof. Huq highlights an extraordinary response that has set the 8th ICSD apart. The conference witnessed four to five times higher abstract submissions compared to previous years. "The level of interest has been remarkable," he noted. "People are not only eager to participate, but they genuinely want to be part of sustainable development efforts."

This overwhelming response is also reflected in the enormous participation and widespread appreciation the conference has received. Researchers, students, policymakers, and development professionals have shown a strong desire to engage, collaborate, and share knowledge, signalling a growing collective commitment to sustainability. This year's edition received around 600 paper submissions, further demonstrating the scale, credibility, and growing global recognition of the conference.

The 8th UIU-ICSD has thus evolved into more than just a conference; it has become a vibrant platform for those who aspire to make a real impact on society.

EXPLAINER

Is there an escape from Solomon's Paradox?

SHOUMIK ZUBYER

Have you ever found yourself dispensing neat, rational advice to friends regarding their less-than-ideal relationships, only for yourself to ignore identical hazard warnings in your own romantic entanglements? Perhaps you have counselled a colleague through a career crossroads with remarkable clarity, outlining precisely why they should leave their stagnant position, while you remain stuck in your own professional plateau. Or maybe you have guided a family member through investment or financial turmoil with wisdom that would rival any C-suite consultant, yet your own bank account reflects a pattern of impulsive bouts you cannot seem to get under helm.

This curious phenomenon, where our judgement sharpens for others but dulls for ourselves, represents one of psychology's most vexing cognitive dissonances. We preach "Do as I say, not as I do", while taking in stride the profound contradiction. But why are the tumults we solve for third parties insurmountable when we must overcome them ourselves?

PHOTO: **ORCHID CHAKMA**

KING SOLOMON AND THE TRITE AILMENT

King Solomon, the Abrahamic monarch renowned for his prodigious wisdom, presided over ancient Jerusalem of Mount Moriah with judgements so astute they have become parables for millennia. His most famous decision involved two women claiming maternity of the same infant, resolved through his empyrean insights into human nature by threatening to divide the child (physically) until the real mother withdrew her claims so that the child may live. Yet this paragon of wisdom, who could discern truth from deception in others, descended into personal folly through excessive marriages, political compromises, and idolatry that ultimately fractured his kingdom. He hoarded hundreds of pagan brides and concubines in silken throngs, hoarded worldly riches, and boasted of his spoils. His negligence led his lone heir to grow up to be an incompetent tyrant. The contradiction between his public wisdom and private failings did not escape modern researchers Igor Grossmann and Ethan Kross, who formalised this observation into what they termed the "Solomon's Paradox".

The study, published in the *Journal of Experimental Psychology*, demonstrated that individuals consistently reason through a more stringent protocol when the concern is not of their own. Grossmann wanted to explore the apparent asymmetry in wise reasoning. When participants were asked to reason about their own interpersonal conflicts using a third-person perspective, their wisdom increased measurably. The research measured wisdom across several dimensions, including recognising limits of knowledge, searching for compromise and alternate perspectives, and acknowledging that things may not always align with their wishful contingencies. Older subjects (60–80-year-olds) were just as vulnerable to paradoxical reasoning, found Grossman, who also wanted to see if ageing leads naturally to wiser reasoning—as is often assumed.

The findings, however, found that self-distancing, whether through temporal projection (an exercise involving looking back at yourself from the future) or perspective-taking, enhanced wiser reasoning by reducing the emotional intensity that typically clouds judgement when we confront our own dilemmas.

WHY WISDOM SHOULD KNOW BOUNDS

When the pattern of this dissonance becomes entrenched, individuals develop what researchers describe as a bifurcated self-concept, where the competent advisor and a struggling protagonist exist in isolation from one another. This disconnection breeds a particular kind of suffering, one with an awareness of a loss in one's agency.

In the research, having established a prevalent asymmetry in wise reasoning, Grossmann wanted to see if it's possible to avoid egocentric reasoning. He had used an infidelity scenario, where some participants pondered their own partner cheating, while others pondered a friend's. Grossman expected a propensity for individuals to be wiser about their friends' course of action while disregarding similar pragmatism for one's own partner, and that is exactly what he found.

"The long-term psychological toll of this manifests as diminished self-efficacy, where repeated failures to apply our wisdom erode confidence in our decision-making capacity altogether," illustrates the study. This attribution pattern can precipitate anxiety, depression, and a profound sense of fraudulence in the long-term.

THE OBSERVER AND THE BALCONY

Escaping this paradoxical prison requires deliberate intervention. The most accessible strategy involves seeking counsel from a trusted friend, not merely to obtain their perspective but to hear yourself describe your situation aloud. However, when all your friends' advice is in unanimous agreement, and you find it difficult to accept or follow, the issue is likely not in their counsel and you should refrain from continued first-person immersion in the problem.

The observer effect, borrowed from physics, suggests that the act of observation changes what is observed. When we shift from participant to observer in our own lives, we access cognitive resources previously blocked by emotional proximity. This transition can be facilitated through what researchers call the "balcony effect", a metaphor for stepping back from the dance floor of our lives to view the patterns from above.

Rather than asking yourself "What should I do?", reformulate the question using your own name or third-person pronouns, as in "What would be the wisest choice for her right now?"

Creating psychological distance without requiring physical separation from your situation, allows the wisdom you readily offer others to finally serve you as well, as you 'depersonalise the problem'. Or for instance, consider someone paralysed by the decision to leave a stable but unfulfilling career. When employing temporal projection, they might ask themselves, "When I am thirty-five years old and looking back on this moment, will I regret having pursued a PhD, or would I ever live down not pouring my entire inheritance on Bitcoin?" This future vantage point immediately clarifies having to choose when in between a rock and a seemingly hard place.

The paradox dissolves only when we become strangers to ourselves, distant enough to see without myopia.

Shoumik Zubyer is a researcher of the soils of Mars at the Atomic Energy Centre and SERC, and a peripatetic. Find him at: shoumic.zubyer@gmail.com.

ILLUSTRATION: **ZABIN TAZRIN NASHITA**

OFF CAMPUS

Is curiosity still present in the learning process?

ELMA TABASSUM

Wonder, musings, and thought have all seemingly become unattainable privileges for a new generation of students. Despite curiosity being the genesis of all knowledge that our species boasts to have, students have found themselves in a precarious position – one where they don't have the space to spend time in contemplation. As they are burdened with demanding schedules, young minds are being tailored to think and answer only in the most efficient ways in standardised tests. This, perhaps, poses a frightening predicament: students no longer go to school to discover and explore; they go to school to learn only what is taught to them.

"Math is easier when I stop asking why" is a thought that crosses my mind fairly often. The frequency increases when trying to parse through my homework. Tutorials for getting better at math on YouTube reaffirm this. Titles to videos explicitly urge the viewer to "stop trying to understand". They elaborate that trying to figure out the nitty-gritty of a topic for hours can be detrimental to our overall progress, especially when students are required to cover multiple topics for their exams.

What follows is a comments section that is filled with hundreds of people who have come to the same conclusion. This is an almost grotesque contradiction for students to retreat to, as math was discovered by great thinkers, who spent hours and hours lost in thought. Most of us, however, do not have that luxury.

It isn't just math, though. Almost all disciplines are being subjected to this same treatment, as tangible results in the form of good grades take precedence over what and how much students really learn. As such, curiosity – the kind that helps students develop an intuitive understanding of topics – takes a back seat in the classroom. There simply isn't enough time or space to indulge it. Teachers, too, are barred by rigid schedules that do not allow them to help students explore questions. Instead, they are required to redirect them back to their "regularly scheduled content".

While it might be only-child prodigies in popular media that are constantly getting told off for asking too many questions, I can't help but feel that almost all of us have been trained out of expressing our interest in ways that are not utilitarian.

Moreover, there is now a largely commercial aspect present in education. Schools, and especially coaching centres, are incentivised to leverage the achievements of their students to bring new pupils in. This new crop of students, in turn, can also hope to achieve similar feats as their seniors. The implication of this growing practice is that success can be reproduced by simply adhering to a strict set of rules. The emphasis is diverted away from the personal habits that high-achieving students rely on, which may well be rooted in curiosity. Instead, stellar performances are packaged as a commodity that can be attained under the guidance of a specific instructor.

As such, practising large volumes of past papers is prioritised over actually exploring the content. Similarly, information is presented in summarised notes of the main points. These merely highlight the 'tricks' to solving questions, reducing the content down to the academic equivalent of YouTube shorts. Against this backdrop, textbooks are often considered an unnecessary nuisance with overly complex wording.

While it is undeniably necessary to solve practice papers, peruse through summarised notes, and be efficient with how we study, what I am concerned about are the things we forego when we only adhere to these quick measures. They are known to work, but if these strategies are the only ones students rely on, then they are depriving themselves of the opportunity to teach themselves how to learn.

The process of learning is personal. What works for one pupil could simply not work for another. But if said student isn't given the space to understand what clicks for them, they will concede to the belief that they are simply inadequate. They will half-heartedly progress to the next stage, without having completely figured out a vital part of themselves. What this development signifies, above all else, is a failure of one of education's key roles: self-exploration.

The quick measures regurgitate one thing: work smarter, not harder. This is a mantra that I have come to abhor. It is essentially telling us to skip past the intricate, awe-inspiring details of knowledge that make the toil of education worth it. Surface-level learning that provides quick results is just enough.

While almost all schools will encourage their students to have hobbies, to spend time admiring the arts, and to be creative in general, no time is afforded to them to do so. Impeding students from engaging in contemplation will only give way to complacency. Instead of cultivating curiosity, we risk becoming disinterested and apathetic individuals who lack self-belief. And the first step to all that could well begin with education being condensed into an easily consumable product.

References:

1. The Guardian (January 28, 2020). *Schools are Killing Curiosity*.
2. Harvard Educational Review (2011). *Children's Need to Know: Curiosity in Schools*.
3. The Young Darwinian (2017). *Curiosity inspires, discovery reveals*.
4. Alfie Khon (October 2, 2024). *Less and Less Curious*.

BEYOND THE CLASSROOM

How BRACU's Mongol-Tori is forging industry-academia collaborations

MD RAFID KHAN AND NAMEERA AMIN

Team BRACU Mongol-Tori has been consistently participating in the University Rover Challenge (URC) for seven years and has once again qualified for the URC 2026 Finals. But for this BRAC University (BRACU) rover team, success in competitions is only part of the picture. What the team has been quietly building on the side is a growing web of international industry-academia collaborations – anchored strongly by the strategic involvement of the Meghna Group of Industries (MGI).

Over the last 12 months, MGI has not merely been a sponsor but a driving force behind Mongol-Tori's momentum. As the title sponsor across all competitions the team has participated in, MGI has ensured that the Mongol-Tori name – and, by extension, Bangladesh's growing robotics capability – has had a powerful and consistent presence on the global stage.

Over the past year, Mongol-Tori has also been actively mentoring school and college students in robotics and STEM education, reaching over 16 institutions across Dhaka and Chattogram. In collaboration with Malaysian company Cytron Technologies, the team has been mentoring students for international competitions, bringing the practical knowledge and discipline honed through years of Mars rover engineering directly into secondary-level education.

"We want to make sure the next generation doesn't have to start from zero the way we did," said Mongol-Tori's co-lead MD Jesan. The outreach reflects the team's broader belief that a sustainable robotics culture in Bangladesh must be cultivated from the ground up, long before students enrol in a university engineering programme.

As Mongol-Tori prepares for the URC 2026 Finals, it has also been quietly building a portfolio of international industry partnerships, starting with a challenge that sits at the heart of any Mars rover mission: reliable, long-range communication. The team integrated mission-critical radio technology from SATEL, a Finnish company recognised globally for industrial-grade wireless connectivity. The result was a verified ground teleoperation range of 3.3 kilometres, tested under the harsh environmental conditions of Bangladesh.

Building on that foundation, the team partnered with CompleTech, an antenna manufacturing company based in Finland. Together, they developed a long-range, high-gain custom antenna designed specifically around Bangladesh's environmental factors. As part of this collaboration, the team also mapped the RF propagation of 433 MHz along the marine drive of Potenga, Chittagong – one of the most environmentally complex stretches in the country. That field data directly shaped the antenna's design. In a notable validation of the team's engineering depth, CompleTech is now developing an antenna tracking system module built on the codebase provided by Mongol-Tori, an instance of student-led innovation feeding directly into global product development.

The collaborations did not stop there. SBG Systems, a leading French supplier of inertial sensors, backed the team's research with a tactical-grade Inertial Navigation System (INS) with a triple-band antenna, enabling sub-degree and sub-centimetre accuracy in rover navigation even under challenging environmental conditions.

Mongol-Tori has also entered into a long-term collaboration with myActuator, one of the world's leading manufacturers of high-torque robotic motors, to develop a precision-based robotic manipulator arm, an initiative that extends well beyond rover applications into industrial robotics.

Mars rover projects are not uncommon at the university level. Sustaining them, however, is a different story. Robotics is expensive, and most teams struggle to survive beyond a single competitive cycle. BRACU Mongol-Tori, now in its seventh year at the URC, offers a compelling counter-narrative.

By producing real technical outputs that industry partners can build upon, and by anchoring that work in a genuine commitment to STEM education at the community level, Mongol-Tori has transformed a university competition project into a platform of enduring impact.

Md Rafid Khan and Nameera Amin are the team lead and team manager, respectively, of BRACU Mongol Tori.

PHOTOS: **COURTESY**