

#### NOTICE BOARD

# BRACU drone team - RaptorX - conducts relief operations in Feni

#### **FATIMA ASHRAF**

BRACU RaptorX, a drone team from BRAC University (BRACU) has successfully completed its mission of delivering relief materials like medicines, sanitary napkins, and dry food items to several remote flood-affected areas in Feni.

The recent floods devastated much of Feni, with six upazilas—Chhagalnaiya, Fulgazi, Parshuram, Feni Sadar, Daganbhuiyan, and Sonagazi – completely submerged and nearly cut off from receiving relief materials due to the lack of boats, according to Feni district administration sources.

"Recognising the need for a more equitable distribution of aid, we started surveillance in the remote Chhagalnaiya Upazila and made our way to Daganbhuiyan and Silonia, where people were in dire need of relief materials," said Mohammad Shayekh, the team leader of RaptorX. The team used Light Detection and Ranging (LiDAR) technology for smooth surveillance and deployed quad drones to reach smaller, isolated communities to translate their words into action.

RaptorX is a cutting-edge VTOL (Vertical Take-Off and Landing) drone, combining the best features of both multirotor and fixed-wing aircraft. It boasts a hybrid propulsion system, utilising four propellers and a rear thruster, making it far more energy-efficient than standard multirotor drones. The thruster allows for



PHOTO: COURTESY

quick take-offs, and the transition to horizontal flight conserves power during longer missions. This extended flight time is critical for long-distance operations like the ones they have undertaken in Feni.

Equipped with AI, GPS, and sensors, RaptorX can autonomously navigate multifarious environments, avoiding obstacles in real time. Its versatility in carrying various payloads – from cameras and sensors to specialised cargo – means it can perform surveillance, mapping, and environmental monitoring in a single flight. Built to endure harsh weather conditions, RaptorX excels even in wind and rain, making it a

reliable solution for critical missions like disaster relief.

The drone is the result of tireless efforts by a talented team of eleven students from BRACU. Their advisor, Abdulla Hil Kafi, a lecturer at BRACU's Electrical and Electronic Engineering (EEE) department, along with their mentor, Firoz Wadud, a research assistant at BRACU's Department of Computer Science and Engineering (CSE), guided the team throughout its iourney.

RaptorX is divided into several sub-teams, each responsible for a critical aspect of the drone's development. Mechanical team lead Mohammad Shayekh and autonomous and navigation lead Shawnak Shahriar ensured the drone's mechanics and autonomous capabilities worked seamlessly. Syed Joy, leading the software and control team, built robust systems for communication and flight control. Network and communication lead Mohammad Fasiul Abedin Khan, and avionics lead Farrdin Nowshad, enhanced the drone's connectivity and onboard electronics Design and simulation were handled by Maidul Islam Moon and his team member, Abrar Zahin, while outreach efforts were spearheaded by Nashowah Afif Nuha, supported by Tasnia Mahjabin Maliha. Media and coverage was led by Pritom Dutta, while Tazwar Ahmed Seyam focused on system analytics.

Fatima Ashraf is a Campus Ambassador for The Daily Star from Military Institute of Science & Technology (MIST).

## National HR Summit 2024 held at Daffodil International University

The National HR Summit 2024 was held on September 14 at Daffodil International University (DIU) based on the theme "Transformation of Bangladesh using Artificial Intelligence". Career Development Center of DIU organised the day long summit at the International Conference Room of the university at Daffodil Smart City at Birulia, Savar Dhaka.

MA Akher, Director (Planning) of the Directorate of Youth Development of Ministry of Youth and Sports was present as the Chief Guest at the inaugural function of the summit. Dr Md Sabur Khan, President of Association of Private Universities of Bangladesh and Chairman of Board of Trustees of Daffodil International University virtually joined the inauguration session as Guest of Honour. Dr Hamidul Haque Khan, Treasurer, DIU presided over the summit. Rtn Mohammad Mashegur Rahman Khan, PHF, President of Bangladesh Society for Human Resource Management, Dr Mohammad Nuruzzaman, Chief Executive Officer of Daffodil Family, and Saif Hossain, Business Development Manager, (Southern Region) of AHZ Associates were present as Special Guests at the programme while Dr Tanir Abir, Director, Career Development Center delivered the welcome address at the summit. Dr Md Sabur said, "We will have to make human resource departments more upto-date by using Al. In this regard we have to work collectively, so that our young generation is more motivated to use this modern technology appropriately." Dr Md Sabur also said that DIU has been trying to create a link between the industry and its education curriculum for many years.

In the day-long summit, five career related sessions were held where the country's



renowned corporate level top human resource professionals bridged industry-academia linkages. Prof. Dr S M Mahabub UI Haque Mazumder, Acting Vice Chancellor of DIU was present as the Chief Guest at the closing ceremony of the summit where Md Farhad Habib, Senior Manager, Corporate Sales, Singer Bangladesh Limited, Mostafa Habib Faisal, Business Development Manager (North), AHZ Associates, and Dr Mohammed Nadir Bin Ali, Registrar, DIU were present as the Special Guests.



### SSCCA workshop held at ULAB

The Student Society for Climate Change Awareness (SSCCA), through its Bangladesh Team 17 (Bio-Clean BD), organised a workshop at the University of Liberal Arts Bangladesh (ULAB) titled "Easy and Impactful Climate Change Practices at Home".

The workshop, held on September 7, focused on educating school students about reducing food waste and adopting sustainable practices within their households, reads a press release.

Special Guests at the event included Sameera Zaman, a lecturer and research associate at ULAB's Center for Sustainable Development (CSD), and Shahana Afroz Chowdhury, an associate professor at ULAB and researcher at CSD.

"It's wonderful to see students learning about climate change and sustainability in such a hands-on, creative way. The workshop not only educated them but empowered them to take meaningful action," said Shahana Afroz Chowdhury.

A key highlight of the event was a live demonstration on making bio-enzyme cleaners from common household waste such as citrus peels, water, and jaggery.

Students actively participated in the process, with the organisers guiding them through each step. Additionally, attendees were allowed to test the pH levels of pre-made bio-enzyme samples, gaining a scientific understanding of eco-friendly cleaning alternatives. The workshop also featured an educational quiz centred on climate-related topics, where participants were rewarded for their correct answers. Furthermore, an art exhibition showcased student-created artwork addressing issues like food waste, plastic pollution, and climate change. Students also engaged in a clay modelling activity, producing visual representations of climate action, which underscored their awareness and creativity.