



BUETEN NEWSLETTER

USING FRONTIER TECHNOLOGY AND BIG DATA ANALYTICS FOR SMART INFRASTRUCTURE FACILITY PLANNING AND MONITORING

TEAM O.CREEDS Ltd.



Asian Development Bank (ADB) and Bangladesh Department of Agriculture Extension (DAE) is going to initiate a project pertaining to high level technologies to revolutionize infrastructure planning in the developing countries who face challenges in identifying and implementing these kinds of technologies. The main goal of the project is to combine technology with current agricultural system in Bangladesh. By using high resolution multispectral drones, identifying crop damage and crop pattern will be initiating a new era of agriculture in Bangladesh. Initially the project starts from the Eastern part of Bangladesh which is Sylhet Division

Newsletter Highlights

- O.CREEDS Ltd
- D8 CONSULTANTS LTD.



Office: ABM Asha
House #B/160, Road #23
Mohakhali DOHS
Dhaka-1206, Bangladesh.



info.bueten@gmail.com



www.bueten.org

USING FRONTIER TECHNOLOGY AND BIG DATA ANALYTICS FOR SMART INFRASTRUCTURE FACILITY PLANNING AND MONITORING

TEAM O.CREEDS Ltd.



O.Creeds Limited is accomplishing the crucial task of combining the icrops application information with multi-spectral drone images to achieve real-time crop pattern monitoring and flood forecasting. This innovative approach allows them to predict and respond to potential flooding events, including flash floods.

OCL's skilled staff plays an important role in analyzing and interpreting the imagery, which is central to this initiative. Their expertise is essential for extracting valuable insights from the data.

Objectives of the projects are as follows:

- Operating drones to collect images of agricultural fields for crop damage assessments.
- Ground data collection for spatial analysis (Both drone and satellite)
- Preparing a methodology for damage assessment using drone and satellite image.
- Operating drones in areas specified by the project team.
- Obtaining round data to training special analysis programs
- Documents field activities in audio and video to report to ADB and Government agencies.
- Capture high-resolution drone and satellite images (SAR & Optical) of the crop area.
- Preprocess images to remove noise and enhance clarity.
- Use image segmentation algorithms to identify and delineate flood water on crop fields.
- Employ machine learning models to classify the crop variance and damaged crops.
- Analyze differences in vegetation indices (NDVI) from Optical Satellite images between healthy and damaged areas.
- Generate damage assessment reports based on the extent and severity of crop damage.
- Validate results with ground truth data and adjust algorithms as needed.

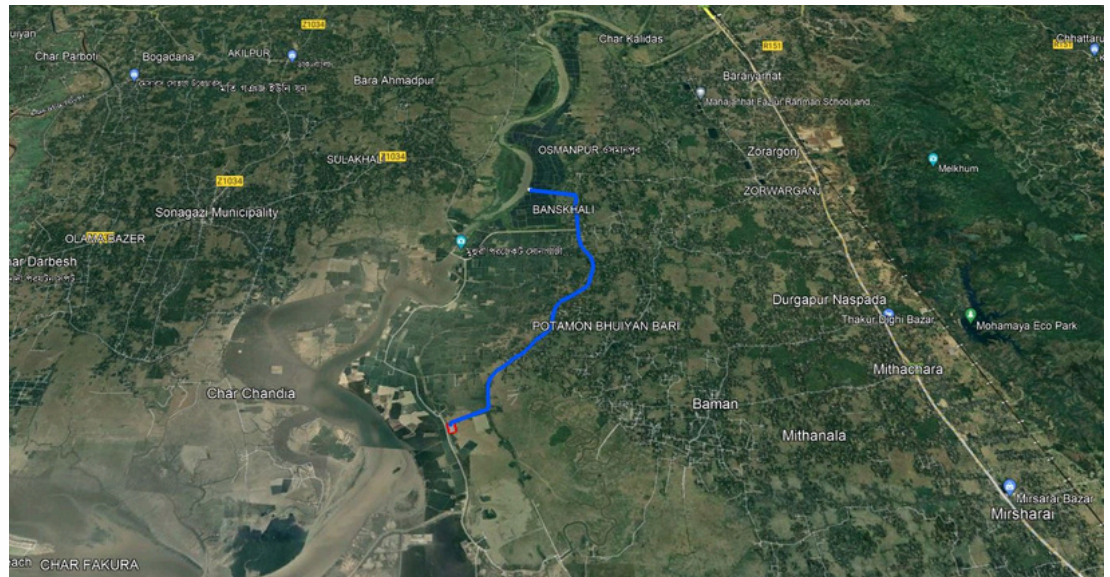


DETAILED DESIGN OF DAM OVER FENI RIVER

CONSULTING FIRM: D8 CONSULTANTS LTD. (D8CL)

Country's first planned industrial city & multi-sector economic zone - **Bangabandhu Sheikh Mujib Shilpa Nagar (BSMSN)** is being established on 33,000 acres of land across Chattogram's Mirsarai and Sitakund and Feni's Sonagazi upazila. A water treatment plant with capacity of 50 million litres per day (MLD) will be established at Bangabandhu Sheikh Mujib Shilpa Nagar (BSMSN) to provide the industrial units with safe water. To serve the following purposes a Dam will be built over Feni River to extract water for treatment and subsequent supply to end users. The intake site of Dam has been finalized conducting feasibility study considering bank stability, long term satellite image and availability of water.

To this effect, Bangladesh Economic Zones Authority (BEZA) signed an agreement with a Chinese joint venture - **ZHEC-BOW-SMEDRIC JV.**



Chinese Engineering Company "Southwest Municipal Engineering Design & Research Institute of China" (SMEDRIC) partnered with multidisciplinary infrastructure design consulting firm - D8 Consultants Limited (D8CL) of Bangladesh for providing consultancy services for the Detailed Design of the Dam over Feni River. CEO, MD & Principal Engineer of D8CL - Jaher Wasim, SEng is looking forward to delivering outstanding & sustainable engineering solutions for this prestigious and challenging project. It will ushered in a new era of fruitful partnership between China & Bangladesh.

D8CL engineering team develops creative, comprehensive, and sustainable engineering and architectural solutions for a future where society can thrive. Equipped with an intimate understanding of local intricacies, world-class talent and proactive leadership, D8CL plan, design, manage and engineer long lasting and impactful solutions to uniquely complex problems.



TOUR GROUP BD



Tour Group Bangladesh belongs to those who have an affection for traveling. We would be delighted to provide support to those who really love to roam around, no matter where the destination is! Let's discover home first & then the earth! Welcome to visit Bangladesh, a land of rivers, high lands with evergreen fields and forests, longest sea beach of the World and many more! Bangladesh is very promising tourism friendly place! It's not only for the exquisite nature but also for the amicable and hospitable.



SINDABAD TORI , TANGUA HAOR



SHURJOSNAN TWIN BEACH RESORT, SAINT MARTIN



BANABASH ECO VILLAGE , SUNDARBAN



TILAGAON ECO VILLAGE , SREEMANGAL

For booking any resort & services please visit our website - <https://www.resortsbd.com/>

-  <https://www.tourgroupbd.com/about>
-  <https://www.facebook.com/TourgroupBd>
-  01840238946
-  <https://www.tourgroupbd.com>
-  20/5, West Panthapath(3rd Floor), Dhaka 1205



Connecting BUETian Entrepreneurs for their success and making a greater impact for Bangladesh economy.