

GIS Training was held for island councils at FEST



project, 8 staff from 8 different atoll councils were invited as the first batch for a GIS and Remote Sensing training. The training sessions were held at GIS computer lab at the Faculty of Engineering Science and Technology (FEST)

In the two-day training the participants were introduced to a software ArcGIS and mapping of Spatial

“Application and Demonstration of Remote Sensing and GIS Technologies in Solid Waste Management: A Case study of Maldivian Atolls” is a research project carried out by the Maldives National University, to engage atoll councils in an advanced way of managing the Solid Waste Management data in the Maldives.

The main aim of this project is to develop a GIS map indicating the situation of solid waste management in all the islands of the Maldives and to empower Atoll councils by providing training with environmental technology such as drone mapping and remote sensing around solid waste management.

This project will establish a real-time base map that consists of updated solid waste management statistics. Solid waste data will be obtained from all inhabited islands of Maldives with the help from respective atoll councils and the Local Government Authority (LGA). As part of this

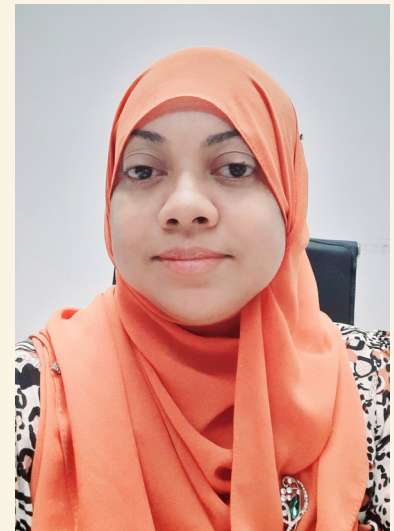
Data.

Participants learnt to perform some of the basic functions such as creating a shape file that can be added as the base-map layer to the ArcGIS software.

Participants learnt how to create a database using Microsoft Excel and to link the geodatabase to ArcGIS. For a geodatabase to work, spatial information should be recorded correctly. The participants were taught on how to correctly obtain spatial data for a project.

On the second day of the training, participants were introduced to remote sensing technologies. As part of this, participants were taken to Villimale’ for a hands-on training with Phantom 4 Pro V2.0. Participants have learnt from unboxing the aircraft to preparing the first flight and some of the safety guidelines on operating the aircraft.

Message From HOD Science



Welcome to the Department of Environment and Natural Sciences (DENS) of the Maldives National University. The Maldives National University is the first Higher Education Institute in the Maldives that offered Environmental Education and pure Sciences at the bachelor’s level in the country and I can proudly say that our programs are a unique blend of theory and practice that is designed to equip our graduates to the real-world challenges.

Our vision in the department is to provide high-quality teaching, research, and learning experiences that meet the needs and aspirations of our students, while at the same time contributing to the development of our country.

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Our mission is to develop a highly visible and stimulating intellectual environment, through which our teaching and research produce graduates with the technical skills and knowledge needed to support the growth and progress of our beloved nation.

As the Head of the Department, I am honored to say that our department has flourished rapidly with significant programs for our country such as Bachelor of Environmental Management, Bachelor of Science, and Bachelor of Marine Science over the last few years. As the Maldives is a country vulnerable to Climate Change, education programs that focuses on Environmental Management, Marine Sciences, and applied Sciences are crucial for the country's progress.

The Maldives is a country with less than 1 percent of land and 99% ocean, it is no wonder that our oceans remain a central focus in our minds. To bring light to the mystery and wonder of our oceans, our marine science program offers great opportunities for our students to learn about the delicate

multi-colored coral reefs, the unique nature of underwater fauna, and to explore seasonal variations our oceans experience in a changing world.

We are all students in this unpredictable world and our department can guide our students' curious minds with expertise in the wonders of Biology, Chemistry, and Physics. Through subjects like "Science and Society" and "Science Communication", we take learning from our classroom to the general public with creative messages about our world that will inspire and educate our public to appreciate the miracles of science that is so central to our everyday life.

In our programs, our students are highly valued as they start lifelong learning that prepares them for a rewarding career and brighter future and I am pleased to say that the progress we have achieved so far in our programs is all because of the dedication and selfless service of our hardworking lecturers, admin and support staff, and ever dynamic students who are always striving for excellence in our department's collaborative atmosphere.

Architecture Students Field trip To F. Nilandhoo

Every semester our Architecture students go on a field trip to an Island. The main aim of the trip is to study various aspects of the island culture, study landforms, and vulnerabilities to climate change. This semester the field trip was to F. Nilandhoo. Nilandhoo is an island located in the South of Male. It has a large lagoon, amenities, and a higher population density compared to several other islands. There is a lot of development and construction work going on on the island. A total of 35 students took part in this project.

This semester the design project focuses on climate resilient buildings. In this project, the students will explore the island's history, the development of urban design, and how it can be applied in a local context. Students were given the context and students will study the island and propose and develop a climate-resilient, self-sustaining urban community and dwellings.

Islands in the Maldives are at risk for climate change. One solution is to develop floating communities and dwellings as a resilient climate response.

During the field trip, students conducted several surveys on land, at sea, and through the air via drone. Interview sessions were also conducted with the locals to study the life of the islanders, their culture and lively hood. Numerous amounts of

data were collected which will aid the students in developing a new community and new types of dwellings. Some of the raw findings were processed, displayed, and presented to the local people and authorities.

On the eight-day trip, the students were met with a warm welcome and great hospitality by the locals and the authorities of F. Nilandhoo. The community of the island was invested in our visit and guided and assisted the student every step of the way to which express our thanks and gratitude to all the islanders of F. Nilandhoo, Nilandhoo island council, atoll council, and other authorities.

Currently, the students are working on developing their concepts for the floating community and dwellings for their projects. They have processed their data and compiled them in the form of site analysis books and are applying their finding to creating a community that will best fit the needs and lifestyle of the residents of F. Nilandhoo. By the end of the semester, the students will have developed very viably climate-resilient design concepts. These works will be displayed in our Design exhibition planned at the end of the semester.

