## Faculty of Engineering Science & Technology

## **Powering Knowledge: Engineering Students' Visit to STELCO**

On 9th March, Civil Engineering and Electrical Engineering students visited the STELCO Head Office & Male' powerhouse at Ameene Magu to gain insights into electricity transmission and production. The visit provided students with firsthand exposure to power generation processes, transmission infrastructure, and the operational aspects of the energy sector. STELCO officials guided the students through various departments, explaining key concepts related to power distribution, plant maintenance, and the latest technological advancements in the industry.

The students also attended detailed orientation classes conducted by STELCO experts, where they learned about industry best practices, sustainability efforts, and the challenges associated with energy production. The sessions covered topics such as power grid stability, load management, and the role of renewable energy in the future of electricity production. Additionally, the importance of safety protocols in power plant operations was emphasized, providing students with a comprehensive understanding of real-world engineering concerns.

Furthermore, students were given the opportunity to participate in an interactive question-and-answer session, where they engaged with industry



professionals to discuss technical queries and career prospects in the energy sector. This session allowed students to deepen their understanding of the field and explore potential areas for future research and employment. In order to mitigate the adverse effects of fossil fuel usage in power generation, PV plants are being built across the Maldives. However, these plants cannot be relied upon to generate the required power without batteries.

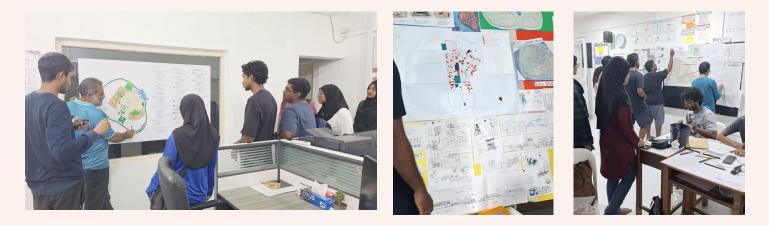






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## Architecture Students Field Trip: Discovering Resilience in Island Communities



In an effort to provide hands-on experience in data collection, research, and design, third-year architecture students from the Faculty of Engineering, Science, and Technology recently embarked on an exciting field trip to AA. Thoddoo. From February 22nd to 29th, a group of forty enthusiastic students, accompanied by three dedicated lecturers, journeyed to explore the unique context of the island. They immersed themselves in the local environment, studying the island's architectural design and resilience firsthand.

Approximately half of the participants are enrolled in Design Studio 5. For them, this trip was a vital component of their studio project, offering an opportunity to study the island's character before proposing innovative, resilient architectural interventions. The other half of the students were tasked with collecting essential data for a research paper as part of an assignment for Environment and Culture 5. This dual approach ensured that every student had a meaningful and focused role during the trip.

The field trip was designed to offer a first-hand look at the challenges and opportunities inherent in designing for island communities. Through direct observation, detailed data collection, and genuine engagement with the local community, the students gained invaluable insights into how built environments respond to environmental, social, and economic pressures. The visit to AA. Thoddoo was particularly eye-opening, as it

underscored the crucial role architecture plays in safeguarding communities against climate change, natural disasters, and resource constraints.

During the first several days, the students dedicated their efforts to collecting data from the island. They conducted an extensive study of the natural and built environment examining zoning, infrastructure. local amenities, and risks such as flooding, strong winds, and rising sea levels. They also explored local farming practices and the cultural and social fabric of the island. Alongside these studies, the team carried out detailed assessments of various architectural styles, building materials, and construction techniques used in island settlements.

In To enrich their understanding, the students actively engaged with local community members, government officials, industry professionals. and These interactions provided deeper insights into local perspectives on urban planning, architectural heritage, and sustainability. Conversations and interviews with relevant stakeholders further illuminated the challenges faced by the community and deepened the students appreciation for the influence of cultural and social factors in architectural decision-making.

Later, the students gathered to brainstorm creative solutions to the issues they had identified, all while continuing to collect additional data. They developed schematic proposals in the form of a resilient masterplan that not only addressed environmental and climate vulnerabilities but also offered strategies to overcome cultural and socio-economic challenges.

As the field trip concluded, it was clear that the experience was far more than a simple excursion. For those in Design Studio 5, it acted as a catalyst for their ongoing Architectural Design Project 5, where they now face the challenge of designing prototypes for resilient residences. Their designs are informed by real-world challenges and incorporate sustainable materials, passive cooling techniques, and disaster-resistant features.

For the Environment and Culture 5 students, the trip proved equally transformative. Working in pairs, they conducted surveys, interviews, and observational studies to gather primary data on community resilience, heritage conservation, land use, and urban development trends in island settings.

Returning from this enriching journey, the students carry memories of the adventure as well as a deepened understanding of the architect's role in fostering resilience and sustainability in island communities. Their experiences underscore the faculty's commitment to practical learning, interdisciplinary collaboration, and the pursuit of knowledge that extends far beyond classroom boundaries.

## Safety and Awareness Session on Electrical Appliances



Electricity is an essential part of our daily lives, but it also comes with potential hazards. To raise awareness and promote safe practices. The Faculty of Engineering, Science & Technology (FEST) recently conducted an informative workshop on electrical safety at S. Hithadhoo Campus on February 19, 2025. This special session was attended by 18 women participants, introducing electrical safety for participants.

The session was led by Assistant Lecturer Mohamed Haleem, who provided valuable insights into electrical safety, personal protective equipment (PPE), and the prevention of electrocution from electric hazards.

The workshop covered a wide range of topics, including basic electrical safety principles, recognizing electrical hazards, proper handling of electrical appliances, and first-aid measures in case of an electrical incident. Experts in the field provided insightful demonstrations on





safe practices, emphasizing the importance of using properly rated electrical equipment and maintaining a hazard-free environment.

Participants were engaged in interactive sessions where they could ask questions,

share experiences, and practice safe procedures. Hands-on demonstrations showcased how to handle electrical emergencies, such as dealing with a short circuit, power surges, and the safe use of circuit breakers.

One of the key takeaways from the workshop was the importance of regular electrical maintenance and inspections, both at home and in the workplace. Simple practices, such as avoiding overloaded sockets, keeping electrical cords in good condition, and unplugging devices when not in use, were highlighted as effective preventive measures.

Feedback from attendees was overwhelmingly positive, with many expressing their appreciation for the practical knowledge shared during the session. The workshop successfully reinforced the message that electrical safety is a shared responsibility, and that awareness can significantly reduce risks. By hosting this session. FEST reaffirms its commitment to empowering women and ensuring they have the technical skills and awareness necessary for safety and self-reliance. More such initiatives will be organized in the future to encourage women's participation in technical fields.

