

Architecture Exhibition 2025

The Faculty of Engineering, Science and Technology (FEST) showcased their Architecture students' course works of the semester again this year. Students from all 3 semester-levels of the Bachelor of Arts in Architectural Design course, with a total of more than 60 students exhibited their final works for the ongoing semester addressing 3 unique design problems in 3 different contextual settings.



At the Semester 2 level, students engaged in a client-based architectural project, beginning with an in-depth study of a selected client to form a clear and meaningful design narrative. The exercise culminated into a residential proposal that translates this understanding into spatial form, expressing the client's personality, lifestyle, and spatial preferences. Each scheme examined how the client inhabits space, how daily routines influence form and organization of the dwelling, and how materiality, light, and atmosphere reinforce identity—resulting in a cohesive and liveable design.



Semester 4 design studio work centered on the theme of “Localism in Tourism.” Students were tasked with developing a homestay under a community-based tourism (CBT) model for N. Kendhikulhudhoo. Beginning with theoretical research into localism, the project progressed through site analysis, master planning, concept development, and technical resolution. The final proposals demonstrated a thoughtful synthesis of cultural preservation, environmental responsiveness, and community integration, effectively translating CBT principles into sustainable and buildable architectural designs.

At the Semester 6 level, students approached Malé City with an optimistic vision for a more liveable and heritage-rich urban environment. After identifying issues of congestion, vehicle dominance, limited public spaces, weak amenities, and the mismatch between housing cost and quality; the students investigated how regenerative master planning and new housing strategies could offer a way forward.

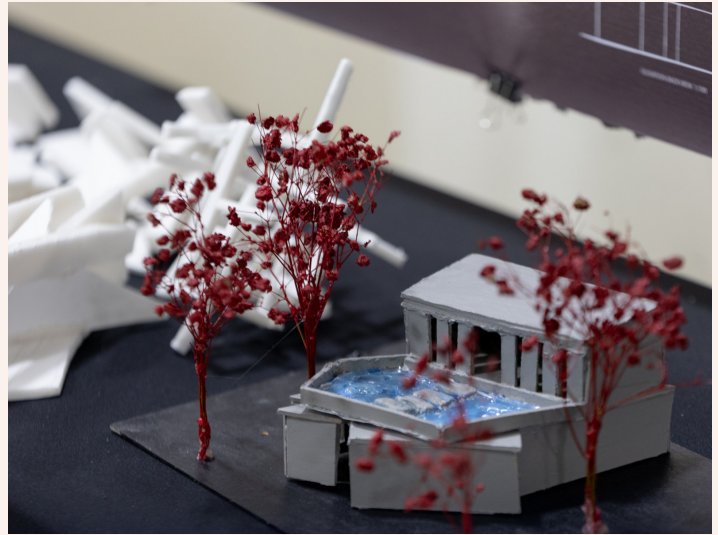
Their masterplans covering selected 12-hectare areas saw part of the land being redeveloped while maintaining much of the rest with only small-scale interventions. Each student then detailed a mixed-residential block of 100 units of which half serves to host the relocated residents, while the other half will be affordable housing units intended for temporary residents. The mixed-residential blocks will be fitted with communal spaces and commercial elements to support both residing population and the residents of the peripheral areas.



All the students in the Architecture program would have undertaken a common process of firstly analyzing their site context, followed by a stage to define the Conceptual outline and key determinants of their Design, followed by a Design development phase leading to the final design output. In addition to the individual outcomes of the exercises, all the students’ works in general, demonstrated the potential of architecture to serve as a transformative tool for societal cohesion and sustainable development, through quality spaces and the use of intelligent programming to potentially inspire any audience.



The exhibition was commenced following an external review session for all the students that provided opportunity to meet professionals in the industry and obtain invaluable feedback on their work. The exhibition is expected to act as a platform enabling knowledge exchange in the field and opening up of further opportunities for the participants. The Exhibition was open for the public from the Monday the 1st of December through the Tuesday 2nd and received a decent turn out that included architects, students' families and friends, and alumni of the FEST.



Best Paper Award for “Fiber Reinforced Self-Curing Concrete Strengthened with Carbon Fibre Reinforced Polymers” at i-STAR 2025 International Conference

Ms. Lidiya Jose, a distinguished lecturer from the Faculty of Engineering, Science and Technology (FEST) at Maldives National University (MNU), recently presented her groundbreaking research at the i-STAR 2025 International Conference on Sustainable Technologies and Advanced Research. The conference, held on November 19–20, 2025, at the BITS Pilani Dubai Campus, brought together leading researchers and experts in the field of sustainable technologies.



Ms. Lidiya's research paper, titled “Fiber Reinforced Self-Curing Concrete Strengthened with Carbon Fibre Reinforced Polymers,” explores innovative advancements in construction materials that aim to enhance sustainability and performance. Her work focuses on developing self-curing concrete reinforced with steel fibers and strengthened with carbon fiber-reinforced polymers (CFRP), which are expected to offer improved durability, reduced maintenance costs, and better environmental performance in concrete structures.



The conference reviewers recognized the significant contributions of her research, which demonstrates a novel approach to sustainable construction materials. Ms. Lidya's paper was awarded the Best Paper Award, a prestigious recognition that acknowledges outstanding academic contributions in the field. This award highlights her dedication to advancing knowledge in sustainable construction practices and her commitment to addressing global challenges related to environmental sustainability in engineering.

The recognition of Ms. Lidya's work at an international forum underscores the quality and relevance of research being conducted at MNU. It also exemplifies the university's commitment to fostering innovative research that contributes to the development of sustainable technologies.

This achievement is a testament to Ms. Lidya's expertise in the field and the growing reputation of MNU's Faculty of Engineering, Science and Technology on the global academic stage.

Exploring the Suitability of Structural Design Codes for the Maldivian Construction Industry

The 5th International Conference on Innovative Research and Development (ICIRD-2025) was held at Shinawatra University in Bangkok, Thailand. Organized by Shinawatra University in collaboration with ESN Publications, this prestigious event brought together scholars, researchers, and industry professionals from across the globe to exchange knowledge and innovations in various research fields.

Among the presentations at the conference, a notable contribution came from Sadat Ali Khan, whose paper, "Exploring the Suitability of Structural Design Codes for the Maldivian Construction Industry," was awarded the Best Paper Award in the Engineering and Technology track. This recognition highlighted the paper's valuable insights into optimizing structural design practices in challenging and diverse construction environments.

In the Maldives, structural engineers have the flexibility to choose from a range of international codes when designing reinforced concrete (RC) structures. This study, presented by Sadat, investigates the potential challenges that arise from this flexibility, focusing on variations in design results and durability requirements across different structural codes. Specifically, the research compares four major international structural design codes: ACI 318 (USA), Eurocode 2 (EC2, Europe), IS 456 (India), and AS 3600 (Australia).

The study systematically evaluates the methodologies prescribed by each code for designing structural elements such as beams, slabs, and columns under typical loading conditions. Key parameters—including required cover, reinforcement areas, moment capacities, shear capacities, and axial load capacities—are assessed and contrasted. The findings reveal notable differences in design outcomes, particularly regarding cover requirements. These differences emphasize the importance of understanding the impact of code-specific assumptions and methodologies on structural safety and material efficiency.

The research further explores how environmental factors in the Maldives—such as high humidity and salinity—can exacerbate the challenges posed by variations in design codes. These environmental conditions significantly affect the durability and longevity of concrete structures, underlining the need for codes to be adapted to local contexts.

Sadat's findings underscore the importance of selecting structural design codes that align with local environmental factors and safety considerations. The study advocates for tailored approaches when applying international codes in regions like the Maldives, where specific climatic and geographical conditions play a critical role in determining the long-term performance of infrastructure.

This research contributes meaningfully to the ongoing discussions about optimizing structural design practices, especially in diverse construction environments like that of the Maldives. The paper's recognition at ICIRD-2025, with the Best Paper Award, is a testament to its significance in advancing knowledge in the field of structural engineering and construction in tropical, coastal regions.



Visit of the students of the Curtin University to the Maldives and their engagement with our staff and students

A team of 16 students and academics from the Curtin University visited the the Maldives from 7th November to the 21st of November. Curtin University is a public research institution based in Perth, Western Australia with a global presence based in many countries including campuses in Malaysia, Singapore, Sri Lanka, and the Mauritius. This is the 2nd consecutive year that a team from Curtin has visited the Maldives.

Curtin university's team coordinated with the Dept. of Architecture at the Faculty and undertook many joint activities including: the conduction of a Collaborative Design Workshop with the Architecture students, undertaking Joint City walk, the participation in a Field Trip for a preliminary survey of the Tholhindhoo island, the conduction of a knowledge sharing session at MNU Auditorium and finally, formalization of the intent for future collaborative works through a signing of an MOU between the 2 entities.



Collaborative Design Session

The Collaborative Design Workshop between the Architecture students of FEST and the visiting students from Curtin was conducted on the 8th of November at MNU PE Hall. The FEST Architecture students engaged with the students from Curtin University to brainstorm and visualize initial design ideas for a peripheral public area at the shoreline in Kulhudhuffushi.

The workshop started with an ice-breaker session that saw the introduction of the students as well as where they were from highlighting physical characteristics of both the Maldives and Western Australia. Afterwards, the FEST students actively worked in mixed groups to envision buildable structures such as BBQ stands, shaded huts, seatings and viewing pavilions etc., while also providing specialized directions from a Cultural and Contextual point of view on the ideas that were being developed. It was interesting to see that the rapidly-developed design ideas on this day served as the initial impetus for the final designs that were built in Kulhudhuffushi by the Curtin team during their visit.



Joint City Walk

Later on the day the FEST students guided the Curtin students on a visit to Villingilli island, and contrasted the differences of this setting with that of Male', though located only 5 minutes away. All the students had an engaging dinner that helped in networking and saw them conversing for hours sharing their knowledge in Architecture, urban planning and socio-cultural aspects that drive the built-spaces and their outlooks in the Maldives.

Preliminary Survey of Tholhenthoo

A few junior students from the Architecture program accompanied by an academic, joined the Curtin team on their visit to the Tholhenthoo island to undertake a preliminary site investigation between the 16th and 18th of November. This was a precursor to a future Fieldwork Collaboration with Curtin University under the New Colombo Plan NCP – targeting to Design and resolve a Heritage project for Tholhenthoo planned to be undertaken in Jan–Feb of 2027.

Knowledge Sharing Session

The Curtin students conducted a knowledge sharing session at MNU auditorium to share the process and the final outcome of the structure designs that were built in Kulhudhuffushi, and the also the knowledge they obtained through the surveying and interviewing process undertaken for Tholhenthoo. This session was attended by HE David Jessup - highcommisioner of Australia to the Maldives, the Resident Representative from UNDP, dleegates from SOEs such as the HDC, and staff and students from FEST.

MOU

One of the most important achievements of the Curtin team's visit to the Maldives was the successful signing an MOU between both institutions on the 18th of November. The Head of School of Design and the Built Environment in Curtin, Professor Sue Anne Ware attended this ceremony and signed on behalf of Curtin university and the VC Dr. Aishath Shehenaz Adam signed on behalf of MNU. It is coveted that the MOU will lead to more areas of formal Agreements that will be beneficial for both institutions.

Vision of the Future

Through the future collaborations, we look forward to exploring ways to integrate our programs and provide more opportunities for cross-connection of the programs between the two universities through an established credit transfer system. We also wish to see staff exchanges and mobility programs being undertaken in the future enabled through our future agreements.

