Progress Towards SDG 11

Make cities and human settlements inclusive, safe, resilient and sustainable

Daffodil International University

August 2023

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SDG 11:

Sustainable Development Goal 11, titled "sustainable cities and communities", is one of 17 Sustainable Development Goals established by the United Nations General Assembly in 2015. The official mission of SDG 11 is to "Make cities inclusive, safe, resilient and sustainable".

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DIU's Contribution and progress:

Number of public accesses to DIU central library: 500+
Number of public accesses to DIU green campus: 1,000+
Contribution to Arts and heritage (public performances in number): 30+
250+ bicycles, 20 electric cars, 90 shuttle buses for ensuring sustainable commuting
DIU allows remote working/working from home from 2020. It has an implemented policy on "Work from home"
Around 5,000+ students (Male & Female) got accommodation in campus
Around 200 staff got accommodation in campus
DIU follows its pedestrian policy in campus and has necessary arrangements for pedestrian movement in campus
DIU bought and renovated and extended an existing building (brownfield sites) for transforming into Engineering complex with all engineering labs.

Sustainable Building Features and Safety Measures:

Safety & Security Department of Daffodil International University organized Fire Evacuation Drill Practice, Fire-Fighting, Earthquake, First Aid, Rescue Training

Secured Energy monitoring area; Automatic fire alarm system and firefighting equipment

Fire Extinguisher along with Instructions to be followed (in local language)

Exit indication and audio speaker for use during any fire and accidental moment

Fire balls are placed in suitable places to be used in fire incidents

Automated system for access in the campus buildings

Automatic energy management & monitoring system (Secured system)

Finger print-based, password protected and Face recognition locker system for students (security) & Fingering system for daily attendance and access into the university

Safety Access & CC camera on campus

Air temperature and humidity are being measured through Thermo-Hygrometer (Air safety in campus)	Air velocity is being measured through anemometer at DIU campus (Air safety in campus)

Implementation of Pedestrian Walkway Safety Policy

PURPOSE
The purpose of the Pedestrian Walkway Safety Policy is to ensure the safety of the pedestrians in the walkways which they use for their safe movement within the university campus. Moreover, another intention is to create awareness of the wheeled vehicles drivers from entering those walkways of the pedestrians. The Policy will also help the university stakeholders to be conscious about their health and safety by using walkways within the university campus.

RULES

1. The walkways at the university campus are supposed to be used by students, teachers, administrative employees, guardians, guests, and other stakeholders as pedestrian walking.
2. The security personnel will monitor and ensure that no vehicular movement in the pedestrian walkways. Vehicular movement may be allowed for any special situation but not as a regular practice which will be approved and monitored by campus administration.
3. Emergency Service Vehicles, such as: firefighting vehicles, ambulance, and police car will be allowed to access the pedestrian walkways when responding to emergency situations.
4. There will be special arrangements in the walkways for facilitating the movement of especially abled persons/persons with disability.
5. The cleaning section of DIU will be responsible for keeping the walkways clean and dust-free.
6. There will be small benches in different places under the tree shade beside the walkways so that the pedestrian may sit over there if they feel tired of walking
7. The Bicyclist will be allowed to use the walkways with care but motorcycles and other motorized vehicles are prohibited in the walkways.
8. No vehicles (irrespective of motorized and non-motorized) are allowed to park on the walkways which impedes the pedestrian movement.
9. If anyone violates the above rules of this policy guidelines, s/he will be penalized to pay an amount of money as decided by the administration
10. The office of the Registrar will be circulated the policy widely among all stakeholders

Link: https://sustainability4d.daffodilvarsity.edu.bd/pedestrian-walkway-safety-policy

Contributions to Knowledge:

The researchers of Daffodil International University conducted research and subsequently published the research results in reputed journals that contributed to the knowledge domain of SDG-11. Below is a highlight of such contribution:

SL	Article Title
1.	Citizen's Perception on Eco-friendly Lifestyle for Conserving Endangered Oriental White Stork and Crested Ibis Bird Species in Japan–Case Studies in Toyoka, Sado and Konosu Cities
2.	The Prevalence of Active Commuting to School and the Factors Influencing Mode Choice: A Study of University Students in a Secondary City of Bangladesh
3.	Prevalence and determinants of hypertension among urban slum dwellers in Bangladesh
4.	Factors Affecting Demand and Supply in the Housing Market: A Study on Three Major Cities in Turkey
5.	The status of natural radioactivity in Nigerian environments
6.	Environmental corporate social responsibility and pro-environmental behavior: The effect of green shared vision and personal ties
7.	Critical success factors of construction projects in Jordan: an empirical investigation
8.	Dual Band Antenna Design and Prediction of Resonance Frequency Using Machine Learning Approaches
9.	The efficacy of various thicknesses of float glasses for protection of gamma-radiation
10.	Suggested two layers container for shielding the low and intermediate activity gamma-ray sources
11.	Localisation of Sustainable Development Goals (SDGs) in Bangladesh: An Inclusive Framework under Local Governments
12.	Computer vision-based street-width measurement for urban aesthetics identification
13.	Remittances, migrant households and pandemic resilience in rural Bangladesh
14.	Cone Beam Computerized Tomographic Analysis of Collum Angle of the Maxillary Central Incisors in Different Types of Malocclusion: Comparative Assessment in Saudi, Jordan and Egypt Subpopulation
15.	Sustainable Local Development: Consolidated Framework for Cross-Sectoral Cooperation via a Systematic Approach
16.	Pathways towards environmental sustainability: exploring the influence of aggregate domestic consumption spending on carbon dioxide emissions in Pakistan
17.	Botnet Detection in IoT Devices Using Random Forest Classifier with Independent Component Analysis
18.	Important factors to remember when constructing a cross-site scripting prevention mechanism
19.	Bridge Crack Detection Using Dense Convolutional Network (DenseNet)

20.	Critical Success Factors for Concrete Recycling in Construction Projects
21.	Finite element simulation on the convective double diffusive water-based copper oxide nanofluid flow in a square cavity having vertical wavy surfaces in presence of hydro-magnetic field
22.	Deployment of e-services based contextual smart agro system using internet of things
23.	Traffic Flow Forecasting in Intelligent Transportation Systems Prediction Using Machine Learning
24.	A Study of Smart Presence System by using Machine Learning Approach
25.	Fractal Pattern Identification from Wearable Inertial and Electromyographic Signals Data during Walking
26.	A Cost-Effective IoT Device for Protecting People from the Dangers of Environmental Risk in Bangladesh
27.	Autonomous Path Planner Vehicle Using Raspberry PI
28.	MODELING THE BEHAVIOR IN CHOOSING THE TRAVEL MODE FOR LONG-DISTANCE TRAVEL USING SUPERVISED MACHINE LEARNING ALGORITHMS
29.	ML-DP: A Smart Emotion Detection System for Disabled Person to Develop a Smart City
30.	IoT-Based Automatic Gas Leakage Detection and Fire Protection System
31.	Aiming Sustainable Transportation Utilizing Social Capital: A Perspective of Mobile Car Park App
32.	Analysis on the Bus Arrival Time Prediction Model for Human-Centric Services Using Data Mining Techniques
33.	Design and Analysis of Multilayered Neural Network-Based Intrusion Detection System in the Internet of Things Network
34.	Investigation on Mechanical Durability Properties of High-Performance Concrete with Nanosilica and Copper Slag
35.	An Intelligent and Multi-Functional Stick for Blind People Using IoT
36.	Effects of Internet of things (IoT) on performance of agricultural in China: A case study
37.	A Model Based on Convolutional Neural Network (CNN) for Vehicle Classification
38.	IoT-Based Intelligent System for Internal Crack Detection in Building Blocks
39.	Artificial Intelligence Empowered Internet of Things for Smart City Management
40.	Design and Development of IoT based Automated Railway Level Crossing
41.	Implementation of Energy Efficient Artificial Intelligence-Based Health Monitoring and Emergency Prediction System Using IoT: Mediating Effect of Entrepreneurial Orientation

Activities and Events:

Asia Marketing Day 2023: Shaping SMART Nations and SMART Citizens through Marketing

Daffodil International University, in partnership with the Asia Marketing Federation (AMF), observed Asia Marketing Day 2023, emphasizing SDG 17 (Partnerships for the Goals). The event, themed "Marketing's Role in Creating SMART Nations and SMART Citizens," celebrated Professor Philip Kotler's 92nd birthday, the Father of Modern Marketing, in support of SDG 4 (Quality Education) and SDG 9 (Industry, Innovation, and Infrastructure). It featured a panel discussion with Professor Kotler and marketing experts on the future of marketing and explored how entrepreneurial marketing contributes to shaping smart citizens, promoting knowledge exchange in line with the Sustainable Development Goals.

Empowering Youth through Cross-Cultural Learning: UMAP Discovery Camp 2023

Md. Mahmudul Hasan Suzan, a student from DIU's Department of Computing & Information System, participated in the "UMAP Discovery Camp 2023: The Globe Discover Indonesia" in collaboration with Indonesian universities. During the two-week camp, Suzan attended seminars on various topics, interacted with local students, and explored Indonesian culture and landmarks. His experience underscores the importance of cross-cultural learning and youth engagement in promoting global unity and advancing the Sustainable Development Goals (SDGs).

DIU Engineering Students' Inspiring Visit to Padma Bridge: Building Bridges to Sustainable Infrastructure

Daffodil International University (DIU) organized a significant visit to the iconic Padma Bridge, providing students from the Civil Engineering and Real Estate Departments with insights into mega projects aligned with UN Sustainable Development Goals (SDGs) related to infrastructure and innovation. Guided by faculty members and experts, students gained firsthand experience of the project, observing large-scale engineering works and transportation systems. This visit not only showcased the grandeur of the Padma Bridge but also inspired a new generation of engineers and real estate professionals to contribute to sustainable infrastructure development and build a brighter future in line with the SDGs.

Advancing Environmental Research: Dr. Mahfuza Parveen's Impactful Presentation at SnT2023

Dr. Mahfuza Parveen, an Associate Professor at Daffodil International University's Department of Environmental Science and Disaster Management, presented a significant paper titled "Integrating Comprehensive Nuclear-Test-Ban Treaty (CTBT) Data in Academic Research of Environmental Science and Disaster Management in Bangladesh" at the Science and Technology Conference 2023 (SnT2023) in Vienna, Austria. This event brought together experts, researchers, scientists, and academics to promote international collaboration and knowledge sharing. Dr. Parveen's presentation contributes to the field of Environmental Science and Disaster Management and aligns with UN Sustainable Development Goals, particularly Climate Action (SDG 13) and Partnerships for the Goals (SDG 17).

Heart for Humanity: DIU's Community Outreach in Sunamganj

In a powerful demonstration of humanity and solidarity, Daffodil International University (DIU) reaches out to approximately 1,000 underprivileged families in the Jamalgonj Upazila of Sunamganj district. Through the distribution of essential relief supplies, DIU, in collaboration with various university clubs, embodies the spirit of the Sustainable Development Goals (SDGs) by promoting mutual cooperation, empathy, and support among communities. This heartwarming initiative, aptly named "Heart for Humanity," exemplifies DIU's commitment to making a positive impact on society.

Enhancing Safety Awareness: DIU Fire and Earthquake Drill Training

In pursuit of safety and preparedness for fire and earthquake incidents, Daffodil International University's Safety & Security Department conducted a comprehensive training program on October 20, 2022, at Daffodil Smart City, Ashulia, Dhaka. The training encompassed Fire Evacuation Drill Practice, Firefighting, Earthquake Response, First Aid, and Rescue Techniques. These proactive measures align with Sustainable Development

Goals (SDGs) by prioritizing safety and disaster preparedness, ensuring a more resilient and secure future for all.

5th Civil Engineering Day 2022: Nurturing Sustainable Solutions

The Department of Civil Engineering at Daffodil International University marked its 5th Civil Engineering Day 2022. This full-day celebration encompassed sports activities, an award ceremony, cultural performances, a band show, and much more.

The event was graced by the presence of Professor Dr. Ainun Nishat, a specialist in Water Resources and Climate Change, who joined as the special guest. Beyond the festivities, this occasion emphasized the commitment to Sustainable Development Goals (SDGs) by highlighting the role of civil engineering in shaping a sustainable future.

Waste Management and Inclusiveness: Building a Sustainable Future

Under the theme "Reuse the past, Recycle the present, Save the future," a proactive program titled "Waste Management and Inclusiveness" took place at Daffodil International University. The event, organized by SI Alumni Network in BD and the Embassy of Sweden in Dhaka, with support from Swedish Institute (SI), Sweden, was hosted by the Department of Nutrition and Food Engineering, DIU. Aligned with Sustainable Development Goals (SDGs), the program aimed to promote sustainable practices and inclusivity for a more sustainable future.

Empowering Digital Citizens: DIU Cyber Security Awareness Workshop

With over 120 million internet users in the country, many face the consequences of online misuse due to carelessness and ignorance. To address this, the Department of Computer Science and

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Engineering (CSE) at Daffodil International University (DIU) organized a workshop on 'Cyber Security Awareness among Internet Users' on October 31, 2022.

Mr. Shyam Sunder Shikder, Chairman of Bangladesh Telecommunication Regulatory Commission (BTRC), graced the workshop as the chief guest, emphasizing the importance of cyber security and featured key figures from BTRC, Bangladesh Police, Bangladesh Bank, and DIU's Cyber Security Center. Aligned with Sustainable Development Goals (SDGs), this workshop aimed to educate and empower internet users, fostering a safer and more secure digital environment.