SDG AT AIUB

American International University-Bangladesh (AIUB) is committed to achieve the United Nations 17 Sustainable Development Goals through different initiatives. These reports outline year-long different activities, such as research & publications, enhancing social inclusion, encouraging environmental sustainability, partnerships, good governance, and diversity among students and employees as well as its associated mapping to different SDGs.

American International University-Bangladesh (AIUB)

SDG Activity Report - 2022

SDG 14: Life Below Water

AIUB SDG Activity Report 2022

SDG 14: Life Below Water

American International University-Bangladesh (AIUB) is making substantial strides in contributing to Sustainable Development Goal 14: Life Below Water through a series of impactful Faculty Research and Publications. In these endeavors, AIUB showcases a dedication to understanding, preserving, and sustaining aquatic ecosystems, aligning with the global imperative to safeguard life below water.

One noteworthy publication, "COVID-19 and Sustainable Development Goals: Bangladesh Perspective," explores the multifaceted impact of the pandemic on Bangladesh's progress towards achieving the Sustainable Development Goals (SDGs). By addressing the intersection of global health crises and sustainable development, this research underscores AIUB's commitment to holistic approaches that consider the interconnectedness of environmental, social, and economic factors in the pursuit of SDG 14.

"Love as Water: Environmental Ethics in Ponyo and The Shape of Water" delves into the realm of environmental ethics through an innovative lens, drawing inspiration from popular culture. This publication reflects AIUB's ability to bridge academic research with accessible and relatable themes. By exploring the ethical dimensions of human interactions with water ecosystems, AIUB fosters a deeper understanding of the importance of sustainable practices in preserving life below water.

In the realm of practical applications, AIUB's commitment to sustainable aquaculture is evident in the research titled "Design and Development of Smart System for Biofloc Fish Farming in Bangladesh." This initiative demonstrates a proactive approach to addressing challenges in the aquaculture sector by integrating technology and sustainable practices. By developing smart systems for biofloc fish farming, AIUB contributes to the responsible management of aquatic resources, promoting the health and vitality of life below water.

The research and development efforts on "Embedded System Design to Attain Sustainable Development Goals" highlight AIUB's technological prowess in contributing to sustainable practices. As embedded systems play a crucial role in various applications, including environmental monitoring and resource management, this research showcases AIUB's commitment to leveraging technology for the greater good. By aligning embedded system design with the SDGs, AIUB demonstrates its forward-thinking approach to solving complex challenges related to life below water.

In summary, AIUB's Faculty Research and Publications related to SDG 14 encapsulate a comprehensive and positive approach to addressing the challenges faced by life below water. From understanding the broad implications of global events like COVID-19 to exploring environmental ethics through popular culture and implementing smart systems in aquaculture, AIUB is actively contributing to the sustainable management and preservation of aquatic ecosystems. These initiatives underscore AIUB's commitment to being a catalyst for positive change, fostering a future where life below water thrives in harmony with human activities.

Contents

Faculty Research and Publication

COVID-19 and Sustainable Development Goals: Bangladesh Perspective

Author: MD. MORTUZA AHMMED et al.

Brief Description:

The objective of this study is to evaluate the state of the Sustainable Development Goals (SDGs) in Bangladesh before the arrival of COVID-19 along with its apparent impact on the accomplishment of SDGs in the future. Data from several national and international sources have been utilised to serve the analytical purpose of the study. Obliteration of the commendable accomplishments regarding some of the SDGs so far and resetting of the goals in terms of precedence are going to be the main consequences of COVID-19 concerning SDGs in Bangladesh which would impede attaining SDGs. However, constrictions in the production of industries along with a massive drop in fossil fuel usage through vehicles would give some respite to nature leading to notable progress regarding SDG 13, SDG 14 and SDG 15. But it would never recompense significantly for the overall effect resulting from COVID-19.

Source: https://www.inderscience.com/info/inarticle.php?artid=125098

Love as Water: Environmental Ethics in Ponyo and The Shape of Water

Author: SHIBAJI MRIDHA et al.

Brief Description:

Analyzing two films, Ponyo by Hayao Miyazaki and The Shape of Water by Guillermo del Toro, this paper studies the portrayal of humanity's complex relationship with water that refuses to present itself as static, simple, and reducible. Attending to water as a dynamic entity, it investigates the dynamics of value and agency of water in its manifested ally, rebel, and love. Engaging in the discussion of reciprocity as a way forward to a world of harmony, the paper argues how water as an equalizer can inform humans to shun their anthropocentric hubris and can help recognize the shared materiality between the human and the non-human world. Drawing on references from the recent scholarship on elemental ecocriticism, material ecocriticism, and environmental ethics, the eco-aesthetics of the films will be studied to evoke an ethical position about water's fluidity and omnipresence that demand our respect and our recognition of the agency of the non-human world.

Source: https://deh.ulab.edu.bd/publications/crossings/crossings-archive/2022-vol-13-no-2/mridha

Design and Development of Smart System for Biofloc Fish Farming in Bangladesh

Author: DR. MD. SANIAT RAHMAN ZISHAN et al.

Brief Description:

In this paper, IoT based smart biofloc system has been designed. The paper has contented the concept of modern science and technology that makes the conventional biofloc system more reliable with great comfort and ease. To make an important change to measure weight of the fish in the conventional system to enrich it with smart technology is the main motive of this paper. In this paper, underwater weight measurement of fishes showed through Image Processing technology via MATLAB software where the weight measurement process can provide an overview of the growth of fish in the biofloc tank. Also, in this paper water quality is measured using different sensors such as pH sensor, TDS sensor, Temperature sensor, etc. of the fish tank and showed these results using IoT platform through smartphone display. Recirculation Aquaculture System (RAS) and renewable source (Solar) as a backup power unit are implemented in this scheme. Moreover, all the different working parts of the paper are coupled together to get a smart scheme for the biofloc fish farming system which will provide a cost-efficient, reliable, and torchbearer for the future development of the system.

Source: https://ieeexplore.ieee.org/abstract/document/9835915

Research and Development on Embedded System Design to Attain Sustainable Development Goals

Author: DR. MUHIBUL HAQUE BHUYAN et al.

Brief Description:

In 2000, world leaders adopted the Millennium Development Goals (MDGs) to eliminate certain critical problems from this earth. Then in 2015, The United Nations adopted the well-known 17 Agenda of the Sustainable Development Goals (SDG) to realize a sustainable world by 2030. It was recognized that poverty and other problematic issues in this world must be resolved jointly by initiating a group of action plans to obtain sustainable developments through signs of progress in the areas of poverty, health, energy, education, gender inequality, economic growth, environment and climate changes, social issues, collection, and preservation of natural resources, etc. The 17 SDGs comprise 169 sub-targets, all of which must be achieved within 2030 through an integrated approach and cooperation. To achieve these goals, engineering research, innovations, development, and commercialization of the designed products can assist us in the respective areas. In this talk, I shall emphasize the recent research and innovations in embedded system design to achieve the SDGs. These ventures will help both societal and economic repayments in the world for sustainable growth. In this talk, I shall also focus on the seven areas

of the SDGs where embedded system design has an important role to execute. These are mainly related to good health and well-being, quality education, clean water and sanitation, affordable and clean energy, sustainable cities and communities, life below water, and life on land. In fine, we may conclude that the advancement of embedded system design surely helps electrical and electronic engineers to design and develop complex engineering problems' solutions to achieve the mentioned specific SDGs, and hence to realize a sustainable world for humanity.

Source: https://dspace.aiub.edu/jspui/handle/123456789/845