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 3:

Good Health and Well-being

AIUB SDG Activity Report 2022

SDG 3: Good Health and Well-being

American International University-Bangladesh (AIUB) is making significant strides in contributing to Sustainable Development Goal 3: Good Health and Well-Being through a multitude of university activities and faculty research initiatives. The university's commitment to fostering a healthy and vibrant community is evident in its diverse range of activities that go beyond traditional academic boundaries.

The university activities showcase AIUB's holistic approach to promoting health and well-being. Events like "RHYTHMS OF TOMORROW 2022, SEASON 1" by APAC and the AIUB Premier League T-10 Cricket tournament not only provide avenues for physical fitness and recreation but also contribute to building a sense of camaraderie and well-being among the student body. AIUB's victory in the Banglalink World Cup Carnival Futsal Fest and the BIUSC Cricket Championship underscores the university's dedication to promoting a healthy and competitive spirit among its students.

Moreover, AIUB's social welfare initiatives, such as the Blood Donation Campaign by AIUB SOCIAL WELFARE CLUB, "SHOMOY," and the campaign "Standing with the Flood-Effected 2022," reflect the university's commitment to addressing health challenges in the broader community. The emphasis on mental health, as seen in the celebration of World Mental Health Day 2022 and the introduction of wEvolve at AIUB, further demonstrates the university's awareness of the importance of mental well-being.

In the realm of faculty research and publication, AIUB is actively contributing to the global pool of knowledge related to health and well-being. Research papers cover a wide array of topics, including the efficacy of deep learning models in forecasting contagious disease outbreaks, the impact of COVID-19 on supply chain management in the RMG sector in Bangladesh, and the assessment of urban health clinics from a technological perspective. These studies showcase AIUB's commitment to exploring innovative solutions and contributing valuable insights to the discourse on public health.

The faculty's research endeavors extend to cutting-edge technologies, such as blockchain and machine learning, to enhance the security and efficiency of e-health services in Bangladesh. Moreover, the research on the detection, classification, and challenges of neurological disorders, as well as the development of a low-cost textile sensor-based insole for monitoring foot pressure in diabetic patients, exemplify AIUB's dedication to utilizing technology for the betterment of healthcare.

In conclusion, AIUB's commitment to Sustainable Development Goal 3 is robust and multifaceted, encompassing both university activities and faculty research initiatives. The university's proactive approach to promoting physical and mental well-being, coupled with the impactful research conducted by its faculty, positions AIUB as a positive force in the pursuit of good health and well-being. As AIUB continues to blend academic excellence with a strong sense of social responsibility, it stands as a beacon for fostering a healthy and thriving community within the university and beyond.

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University Activities

"RHYTHMS OF TOMORROW 2022, SEASON 1" by APAC

They say talents are not made but born. It can't be taught. But it can certainly be awakened. Talents are hidden gems waiting to be discovered, they just need an opportunity. And it is our responsibility to explore and encourage the younger generations to pursue their talents. "Rhythms of Tomorrow 2022, Season 1", an inter-college music competition for aspiring young bands, organized by the AIUB Performing Arts Club (APAC) and supported by the American International University – Bangladesh (AIUB) was a humble initiative with the aim of nurturing that very notion. APAC, one of the oldest student organizations at AIUB, reached out to numerous schools and colleges across the country throughout the month of November, inviting them to register and participate in the event. Over 35 bands from around 40 different schools and colleges submitted their video performances online for the Preliminary Round: Virtual Open Mic. The submissions were rigorously evaluated by the 'Tri-Gen' judge panel comprised of APAC alumni members - Sarwar Alam Shakil (Musician & Lead Guitarist, 2012-14), Sajid Rahman (Musician & President, 2014-16), and Anik Das (Musician & President, 2016-17). 10 bands were selected for the Knockout Round: Rise of Music, held on the 8th of December 2022 at the Multipurpose Hall of AIUB, where the participants were welcomed on campus to audition their original or cover songs before the 'Tri-Star' judge panel of renowned icons of the Bangladesh music industry – Sheikh Ishtiaque (Vocalist, Musician, & Band Member, Shironamhin), Shishir Ahmed (Guitarist, Keyboardist, Music Composer-Producer, & Band Member, Aurthohin), and Ibrahim Ahmed Kamal (Guitarist, Music Composer-Director-Producer, Teacher, and Founder Member, Warfaze), who shared their thoughts on the program and even put up some amazing impromptu performances at the students' requests. After diverse performances, constructive feedback, and careful consideration, the Top 5 were announced for the Final Showcase: Tribute to the Bands.

On the 26th of December 2022, each band took the stage at the AIUB Amphitheatre, where they put up incredible performances that echoed with beautiful melodies, resounding energy, and the drive to prove themselves as the music maestros of the future! Every band received praise and applause from the judges and the crowd alike. The live session was judged by Sheikh Ishtiaque and Ibrahim Ahmed Kamal, along with Bappa Mazumder (Singer, Lyricist, Composer, & Founding Member, Dalchhut) as the Special Guest Panelist. Together they not only provided valuable guidance and insight to the participating bands, but also took the stage themselves with an impromptu jamming followed by a series of brilliant performances covering some of their legendary songs that had the crowd cheering for encores. Finally, they announced the winners, presenting them with the crest, medals, and prize money. 'Rockfish' from Notre Dame College and Rajuk Uttara Model College became the 2nd Runners-Up, while 'Moonshine' from Dhaka Imperial College became the 1st Runners-Up, and 'Auvro' from SOS Hermann Gmeiner College took the title as the Champions. 'Bishorgo' from Dhaka Residential Model College and 'Protocol' from Dhaka City College were presented with medals as the Finalists in the competition. All participating bands, along with the finalists and winners were provided with certificates as well. On behalf of AIUB, Mr. Manzur H. Khan, Director of Student Affairs, presented the judges with tokens of appreciation for their contribution and support in making the humble initiative of students such a grand success. They expressed their commendations towards the university and the young talented and hard-working students who organized and participated in the event, looking forward to another season in the near future. In their honor, the members of APAC put up a mash-up performance, covering various iconic songs of Bangladesh band music, bringing the program to a close, reverberating with passion, dedication, and love for music.

AIUB is the Champion of Banglalink World Cup Carnival Futsal Fest - 2022

The American International University – Bangladesh (AIUB) is the champion of Banglalink World Cup Carnival Futsal Fest - 2022. In the final match, AIUB beat the team of Eastern University to become the unbeaten champion. The regular time of final match ended in a draw and the winner was decided in the tiebreaker, where AIUB won by 3-2 score. Earlier AIUB beat Northern University (9-1), BRAC university (3-0) and Jagannath University (2-1) before moving to the final. 12 universities participated in this day long in the tournament held on Sunday, 11 December 2022 at the Nutmeg Football Academy, Swadesh, Sunvalley Baridhara Abashon, Dhaka.


FBA, AIUB Organizes Meet n' Greet for the Freshers - Fall 2022-2023

The Faculty of Business Administration (FBA), AIUB, organized an interactive session entitled "Meet n' Greet - the FBA Family" for the BBA Freshmen Students of the Fall 2022-2023 Semester on Wednesday, October 19, 2022, held at the Multi-purpose Hall, Building D. The program was attended by the BBA Freshmen students, the faculty members, the Department Heads and representatives, and the Undergraduate and Graduate Program Directors, FBA. The program's objective was to welcome and have an information-sharing session for the BBA Freshmen Students of this ongoing semester. The session commenced with a welcome speech by Prof. Dr. Nisar Ahmed, Director of the Graduate Program, FBA, followed by inspirational remarks by Prof. Dr. Farheen Hassan, Director of the Undergraduate Program, FBA. The speakers welcomed the students to AIUB and motivated them to excel in their tenure of studies and adore the serenity of the beautiful AIUB campus.

The emcee of the program, Ms. Shahnaz Zarin Haque, Assistant Professor, Dept. of OSCM, FBA, further carried out the session by giving a synopsis of the session. After the introductory discussion, Dr. Mohammad Faridul Alam, Head, Dept. of Accounting, briefly explained the various FBA degree programs and other academic issues. The session continued with a discussion of the different student-based activities informed by Dr. Khondaker Sazzadul Karim, Head, Dept. of Marketing and THM. The session ended with a lively dance and song performances by the members of the AIUB Performing Arts Club (APAC). The students actively participated and enjoyed the overall arrangements. The FBA, AIUB, is especially thankful to the AIUB Management, Administration, and Office of Student Affairs (OSA) for their support in arranging the session successfully.


DEA-AIUB organized Award Program's Adventurous Tour

The DUKE of Edinburg's Award at AIUB (DEA-AIUB) successfully organized the Award Program's adventurous tour and residential project which is an essential component of the award. 51 participants and along with the Award leader Mr. Rifath Hasan, Officer, Office of Sports participated in this event at the Camp in Cox, Cox's Bazar from 8 November 2022 to 12 November 2022.

Participants were involved in designated tasks that fulfil various award criteria for their successful completion of the program. There were challenging and surprising activities like self-tenting, kayaking, tracking and 100tk food challenge, along with sports, public speaking, cultural activities. It was the responsibility of the participants to keep their camp surrounding clean and to conduct every single daily routine task by themselves. There was also research writing task on their findings based on the journey.

The adventurous tour and residential project of the DUKE of Edinburg's Award are aimed at enhancing self-dependence, enriching confidence, developing leadership and communication skills among the participants.

AIUB received the Championship Trophy (Cricket- male) of the BIUSC 2022

The American International University-Bangladesh (AIUB) received the Championship Trophy (Cricket-male) of the Bangabandhu 3rd Inter University Sports Championship 2022 (BIUSC 2022) on Wednesday, 23 November 2022 at the Army Stadium. Honorable Prime Minister of the country Sheikh Hasina handed over the trophy. On behalf of the team, Azmir (Vice Captain), Rifath Hassan, Officer, Office of Sports and Manzur H Khan, Director, Office of Student Affairs received the trophy from the honorable prime minister.

Earlier AIUB became the unbeaten champion in the male cricket event of the tournament that took place on the Green University sports field on Sunday, 25 September 2022 where AIUB Cricket Team (male) defeated Daffodil International University (DIU) by 52 runs.

AIUB female football team became the runner-up in the same tournament. In the final match held on Wednesday, 23 November 2022 at the Army Stadium, AIUB lost to Gono Bishwabiddalay by 1-3 goals. Honorable Prime Minister Sheikh Hasina witnessed the match and later distributed prizes among the winners.

Seminar on “International Day of Medical Physics & World Radiography Day”

On Tuesday, November 8, 2022, the Center for Biomedical Research (CBR) of Dr. Anwarul Abedin Innovation Institute, AIUB in collaboration with the IEEE Engineering in Medicine and Biology Society AIUB SB Chapter, successfully organized a seminar session titled " International Day of Medical Physics & World Radiography Day.". The purpose was to increase public understanding of the significance of physics in the healthcare system and promote public awareness of radiographic imaging and therapy.

The program was inaugurated by Prof. Dr. Md. Abdur Rahman, Advisor, IEEE AIUB Student Branch; Associate Dean, Faculty of Engineering, & Director, Dr. Anwarul Abedin Institute of Innovation, AIUB. He talked about the importance of medical physics, instrumentations, and radiation. He also spoke about the fields of Biomedical & Physics being related. After the inauguration, Dr. Humayra Fredous, Deputy Director, Center for Biomedical Research, Dr. Anwarul Abedin Institute of Innovation ; Head-in-charge & Associate Professor, Department of Physics, AIUB, gave a brief remark on the International Day of Medical Physics & World Radiography Day. She mentioned that World Radiation Day and the International Day of

Medical Physics are being observed for the first time in AIUB. Then she talked about Marie Curie and her inventions, usage of radiation & radiotherapy, cancer treatment and fatalities and few other important issues. After that the event speaker, Dr. S.M. Hasan Mahmud, Assistant Professor, Department of Computer Science, AIUB, took the stage. He greeted and thanked everyone for joining the session. He started the discussion with a machine learning-based approach to computational drug discovery. He also talked about feature extraction, balancing & model training phase. Before that, he described the bioinformatics & drug target data processing phase. There was a detailed discussion on using bioinformatics and machine learning algorithms and their real-life applications. The session ended with Prof. Dr. Mohammad Abdul Mannan, Advisor, IEEE AIUB Student Branch & Director, Faculty of Engineering, AIUB, presenting the token of appreciation to the honorable speakers. The event was jointly organized by Centre for Biomedical Research, AIUB and IEEE Engineering in Medicine and Biology Society AIUB SB Chapter and was attended by more than 50 participants.

Intra-AIUB Art Exhibition by AIUB Arts Club

The AIUB Arts Club (AAC) arranged an Intra-AIUB Art Exhibition at the ground floor lobby of Building D from October 16 to October 20, 2022. Out of an overwhelming submission of 170+ paintings from students across all the departments, finally 52 painting were selected for display in the exhibition. Dr. Carmen Z Lamagna, Vice Chancellor of AIUB visited the exhibition several times, by herself and also while accompanying guests from the Philippines embassy. Faculty members, students and officials visited and appreciated the paintings of students. Prof. Dr. Siddique Hossain, Dean, Faculty of Engineering, accompanied by Prof. Dr. Abdur Rahman, Associate Dean, Faculty of Engineering and Mr. Mashiour Rahman, Associate-Dean, Faculty of Science and Technology distributed certificates among the members of AIUB Arts Club at the end of the exhibition.

Workshop on Travel Photography by AIUBPC

On Wednesday, 12th October 2022, AIUB Photography Club (AIUBPC) organized a workshop titled "Travel Photography by Jubaer Talukder" in the Multipurpose Hall of D-Building in the AIUB campus. The program started at 3:30 PM with around 250 pre-registered participants. Renowned filmmaker and content creator, Jubaer Talukder conducted the workshop. He gave the participants an overview regarding his lifestyle as a travel photographer. Following his introduction, he shared some memories from his past experiences in different parts of India and Nepal. Later, the participants got to know several crucial aspects of travel photography, such as gear requirements, research before visiting a particular place and so on. Then, he showed the participants one of his most famous travel vlogs as an example to give them an idea regarding film-making. At the end of this presentation, an interactive question and answer session was held where the speaker addressed all the queries raised by the participants. All participants were awarded certificates by the speaker as appreciation of their dedication towards photography. At the end, the speaker was honored with a token of appreciation from AIUB, and all the participants gathered for a group photo with the speaker while cheering for the successful workshop.

AIUB Indoor Games Competition 2022

The American International University-Bangladesh (AIUB) has organized a 11-day long AIUB Indoor Games Competition 2022. The event was inaugurated by the Vice Chancellor of AIUB Dr. Carmen Z. Lamagna at AIUB Campus on Monday, 14 November 2022. Among others, Deans, Directors and Heads of different departments, faculty members, high officials and students were also present at the inauguration. This year the Indoor games include Chess, Badminton, Basketball, Handball, Table Tennis, Tennis, Ludo, Carom, Billiard and Volleyball.

AIUB at the International Conference on Organ Donation and Transplantation

The International Conference for Initiatives on Organ Donation and Transplantation was organized in Abu Dhabi, UAE from 7-9 Nov 2022. Speakers from 32 countries (including WHO) and about 1,200 participants attended this conference. Dr Muhammad Wasif Alam (head of Public Health Dept. at American International University – Bangladesh) and Emeritus Professor Dr ABM Abdullah (personal physician to the Honorable Her Excellency Sheikh Hasina Wazed) were invited from Bangladesh.

The aim of the conference was to shed light on global experiences and best practices related to the scientific, charitable, societal and legal aspects. Dr Abdullah gave an update of Organ Donation and Transplantation in Bangladesh while sharing stories of some people who were hesitant or had refused organ donation. Dr Alam spoke about the Public Health perspective of promoting organ donation in Bangladesh and globally. Dr Alam pointed out that despite adequate number of Organ Transplant centers and qualified healthcare teams, the number of Organ Donation is very limited worldwide. Long waiting list and the increasing demand for procuring/purchasing organs from living donor, often has forced poor people to selling vital organs – which has created an illegal and unethical market in many countries. Dr Alam asked the audience if it were just the lack of legislation, hospital resources or is it the culture, approach, process, and trust of our healthcare system for organ donation and transplantation? Understanding the process of counseling families and obtaining informed consent is a vital skill which our healthcare providers may need to learn during their training, Dr Alam added.

Training on Food Hygiene, Cleaning and Services

On 2nd September 2022 the Training & Development section of the Office of Human Resources, AIUB (HRD) arranged a day long training session on Food Hygiene, Cleaning, and Services at the AIUB Training and Research Centre, Sreepur for its class 4 service staff - office peons, supervisors, kitchen staff, chefs, housekeepers, and also for AIUB canteen's (Café Shanzaib) staff.

The main facilitator Mr. Mohd. Oliullah, Director, Food and Beverage of the Pan Pacific Sonargaon Hotel, who has over 30 years of practical experience on this sector conducted the first part of the session. He explained how to deliver a service by finding out a suitable solution anticipating the situation, then exceeding the expectations by correctly handling the moments. After morning session Mr. Fahad Tanveer Aleef, Consultant, Hotel & Resorts, CORPORATECOACH, Dhaka showed in-depth food and beverage skill know-how and hands-on techniques for consistently delivering quality service in every type of food hygiene and service operations. Around 30 participants took part in this training session.

ACC organized seminar on Cyber Security & Social Awareness

On 12th October 2022, in the month of Cyber Security Awareness, a seminar named "Cyber Security & Social Awareness Program 2022", was conducted by Carrer Pro BD, a Training and Development organization in collaboration with the AIUB Computer Club. The event was titled "It's Easy to Stay Safe Online". The event partners were FOGG, Pepsi, GLOBAL VISION, DigiFix, Ahmed, and AIUB Computer Club. The media partners were BANGLA VISION, Kalbela, and SHADHIN 92.4 FM. Objectives of the program were creating more awareness about Cyber Security, clearing up confusion regarding Cyber Security and evaluating the importance and necessity of Cyber Security in modern world.

The event was sectionized into several key sections. With the motto of fulfilling the objectives of the program three panelists Aklima Yeasmin, General Manager, HR & Administration, R-PAC International, Jahanara Akhter Shinu, HR Business Partner, Bestseller, and Md. Fazle Farazee, Senior Manager (Head of HR), Corporate HR Department, Esquire Electronics Limited took the floor to educate the audience about the fundamentals of Cyber Security, the importance of it and the way of achieving the security. Ms. Yeasmin started her part by giving a brief overview of today's world. She said that everything is going to be engulfed in the virtual world in near future. Then she talked about the importance of data management in business planning and continuity. Afterward, Ms. Shinu talked about the ratio of various communication platforms people use and highlighted that 70% of the time people communicate through emails. She also gave some ideas about policy in cyberspace, the code of ethics, and data ethics. After that, Mr. Farazee uttered some valuable awareness policies of cyberspace. He talked about the relevance of maintaining password and never sharing it. Later, he gave a broad overview of data security, precautions against hacking, employee awareness, and need of saving data every 15 days. Ms. Yeasmin articulated to stay away from using free Wi-Fi and third-party cyber security control applications and programs. Later, Ms. Shinu also advised the audience not to share CVs from CV banks. Their session of speech ended by the awareness quote of Ms. Shinu. She ended the session by saying "Stop, Think & then Click".

The host of the event, Ms. Biswas addressed the second session speakers and guests Touhidul Islam Khan Shoikot, Deputy Director at Bangladesh Bank, and Tanwita Ghosh, Consultant, Psychotherapy & Counselling, Bangladesh Psychiatric Care Ltd (BPCL). Mr. Shoikot evaluated the importance of cyber security in his speech. He also talked about the legitimate process of having help in solving one's cybersecurity-related issue. He talked about the necessities and tackling cybercrime. He introduced the audience how fast the cyber security concern is growing in modern world. The second speaker Ms. Ghosh conveyed the health awareness for both physical, mental health. She also talked about the relationship among biological, social, and psychological aspects which work as a stabilizer for mental health. During the sessions a small quiz contest was arranged and that made the event more engaging for the participants. The participants who became the winner were awarded with gift hampers. All the speakers welcomed questions from the participants and a good number of responses were received from the audience. At the end of the seminar, Abhijit Bhowmik, Associate Professor and Special Asst., Office of Student Affairs, AIUB, talked about his view on cyber security awareness and its importance. Mr. Bhowmik thanked the organizers, media partners, and guests to make this awareness program happen. Later, he handed over some token of appreciations to the guests and organizers. Over 200 participants were present in the event and made the event successful.

Down Syndrome Awareness Month Celebrated at AIUB

On Thursday, October 20, 2022, the Department of Public Health, American International University-Bangladesh (AIUB) and the Down Syndrome Society of Bangladesh (DSSB) jointly celebrated October Down Syndrome Awareness Month at the AIUB Campus with an aim of increasing awareness on this issue. Dr. Carmen Z Lamagna, Vice Chancellor of AIUB was present as the Chief Guest and inaugurated the program with colorful rally inside the campus, which was attended by special children with down syndrome, officials of DSSB, students, faculty members, department heads, directors, deans, officials of AIUB. Prof. Dr. Tajul Islam, Dean, Faculty of Arts and Social Sciences (FASS), AIUB delivered the welcome address. Honorable Ambassador of Royal Netherlands Embassy in Bangladesh H.E Annie Van Leeuwen attended the seminar as the Guest of Honour. He said, Down syndrome is an important issue. Like the rest of the world, the number of people with Down syndrome is increasing day by day in Bangladesh. Their rehabilitation and inclusion are the need of the hour. Honorable Vice Chancellor of AIUB Dr. Carmen Z. Lamagna, in her speech of the chief guest, said that this kind of celebration in the campus is very significant and will play a very important role in creating awareness among the university students. It is our responsibility to provide all possible support, benefits, opportunities, strength to the Down syndrome-affected children for them to be an active part of the society. Mr. Sardar A Razzak, the Chairman of Down Syndrome Society of Bangladesh, presented the keynote speech in the seminar. The theme of this year's awareness month is #InclusionMeans. The main goal of this awareness month is to ensure the inclusion and participation of the underprivileged people with Down syndrome at all levels of society.

Adieu! Graduating Students of FBA-BBA Summer 2021-2022

The Faculty of Business Administration (FBA), American International University-Bangladesh (AIUB), organized a farewell and certificate-giving ceremony, "Adieu! Graduating Students of FBA-BBA!". The program was held at the Multipurpose Hall, Building D, on Wednesday, August 31, 2022. Participants are one hundred fifty graduating students who had completed their BBA Internship Defense and the Professional Development course in Summer 2021-2022. The faculty members, Department Heads, the Directors of the FBA Program, and administrative representatives from AIUB also participated in the event.

The farewell program commenced with a welcome speech by Dr. Nisar Ahmed, Director, Graduate Program, FBA, followed by an address on career choice and planning by Mr. R. Tareque Moudud, Director, Office of Placement and Alumni (OPA). Mr. Ziarat H. Khan, Deputy Director, Student Service and Welfare, Office of Student Affairs (OSA), shared his views on the students' development and mentioned about AIUB Alumni Society (AIUBAlumS). After him, Dr. Farheen Hassan, Director, Undergraduate Program (BBA), FBA, delivered the concluding speech. She congratulated the FBA-BBA Graduating students of Summer 2021-2022 and wished them a prosperous career and life.

A few graduating students shared their best memories at AIUB, followed by farewell songs by Mr. Soumendra Sankar Das, Associate Professor, Dept. of Marketing. After the performance, the FBA Faculty members presented the certificates to the students of Summer 2021-2022 who had participated in the Professional Development course during the semester. At the program's conclusion, the faculty members sang Rabindranath's Purano Shey Din Er Kotha to say "Adieu" to all the graduating students.

The program was coordinated and facilitated by Dr. Kh. Sazzadul Karim, Head, Dept. of Marketing and THM, Mr. Stanley Rodrick, Mr. Md. Joynal Abedin, and Mr. Hamidul Islam, the faculty members from the FBA and the TAs under the direct guidance and supervision of Dr. Farheen Hassan, Director, Undergraduate Program (BBA), FBA.

World Mental Health Day 2022 celebration and introducing wEvolve at AIUB

On the occasion of the World Mental Health Day 2022, commemorating the importance of making one's mental well-being a priority, the American International University - Bangladesh (AIUB) organized a rally on its campus with its students, faculties, and officials on Monday, 10 October 2022. Dr. Carmen Z. Lamagna, Vice Chancellor, AIUB and Ms. Nadia Anwar, Founder Member, Board of Trustees, AIUB, inaugurated and participated in the rally around the campus, adorned with hand-painted placards prepared by the AIUB Arts Club (AAC), showcasing creative messages to spread awareness on mental health. Deans, Associate Deans, Directors, Department Heads, faculties, student club members, and general students all joined the program.

Ms. Nadia Anwar announced the introduction of professional mental health services at AIUB for its students and staff, in collaboration with wEvolve. wEvolve is a holistic organization geared towards promoting, enabling, and improving mental health for all those who are struggling alone. In this day and age, when we deal with so many complexities even at a young age, seeking expert counseling when in need should no longer be a stigma and that is precisely the narrative that AIUB and wEvolve is attempting to change.

To celebrate the day, a concert was also organized at the campus' amphitheater, where the AIUB Performing Arts Club (APAC) put on musical performances on some popular numbers. An alumnus of AIUB's Mass Communication and Media (MMC) Department, one of the country's renowned musicians, Minar Rahman also put on an incredible performance for the crowd. Amidst all the hustle-bustle of classes and coursework, the event served as a break for students and staff to make their mental well-being a priority moving forward.


AIUB is Champion in Cricket (male) category of BIUSC 2022

The American International University Bangladesh (AIUB) cricket team (male) is the unbeaten champion in the Cricket (male) category of the Bangabandhu Inter University Sports Championship (BIUSC) 2022. The tournament final took place on the Green University sports field on Sunday, 25 September 2022 where AIUB Cricket Team (male) defeated Daffodil International University (DIU) by 52 runs. AIUB scored 190/8 in 20 overs whereas Daffodil International University scored 138/9 in 20 overs. AIUB remained unbeaten throughout the tournament. Mahidul Islam of AIUB won the trophy of the man of the match for his 50 runs in 29 balls.

Earlier, AIUB beat Primeasia University and Khulna Agricultural University in the group round matches, and Bangladesh University of Business and Technology and the European University of Bangladesh in the second-round matches. AIUB also beat Dhaka University in the Quarter Final and Stamford University Bangladesh in the semi-final. The third edition of the Bangabandhu Inter-University Sports Championship was organized with the joint participation of the Public and Private Universities of the country under the initiative of the Ministry of Youth and Sports, dedicated to the Mujib Year and the Golden Jubilee of Bangladesh. Total 104 universities competed in the Cricket (male) category.


AIUB Inter College Football Championship 2022 begins

The AIUB Inter College Football Championship 2022 has been inaugurated at the Sports Filed of the American International University – Bangladesh (AIUB) on Monday, August 22, 2022. Mrs. Nadia Anwar, Founder and Member, Board of Trustees of AIUB inaugurated the event in presence of Faculty Members, others Administrative Officials of AIUB and representatives of Participated Institutions. The Championship 2022 is organized by the Office of Sports of AIUB. 32 colleges of Dhaka city are taking part in this championship tournament.

All matches of the tournament are broadcast live in the official Facebook page of AIUB (https://www.facebook.com/aiub.edu). AIUB organizes this type of events on a regular basis which encourage the students to be more engaged in extra-curricular activities for their holistic development. The tournament will take place in the AIUB Sports Field for 11 days from August 22 to September 1, 2022. Final Match of the Tournament and the presentation of awards will be held on September 01, 2022, in AIUB Sports field.



MMC Students visited the Resettlement area of Kumarabhog, Mawa

The Padma Multipurpose Bridge is a long-awaited dream of the citizens of Bangladesh. On June 25, 2022, Honorable Prime Minister of the Government of People's Republic of Bangladesh, Sheikh Hasina inaugurated the Padma Bridge, embarking the country into a new era of self-sufficiency. In the international arena, it is a sign of bold proclamation and pride.

This bridge exists entirely for the service of general, and mainly for north and southern people of Bangladesh. However, the question that really arises is; "Is it truly serving its purposes? The question is "where they are living whose ancestral home, land, farms, etc. have to be handed over to the government for this Padma Bridge and how is the government assimilating them? In addition, is it truly serving the masses the way we all expect it to?

To answer such hundreds of questions on the minds of the Media and Mass Communication (MMC) students (budding journalists) of the American International University Bangladesh (AIUB) a study tour was arranged by Mr. Niaz Majumdar on Thursday, July 29, 2022. Students of Photojournalism and Introduction to Communication courses conducted a survey to find out the actual condition of rehabilitation centers for sufferers or marginalized groups at the resettlement area of Kumarabhog, Mawa.

The Kumarabhog rehabilitation site is a natural beauty with glimpses of greenery. All houses are wonderfully constructed (tradition and modern) and decorated. There is a beautiful mosque at the entrance, with ponds, and many small shops. The overall atmosphere is very calm and relaxing.

It was a part of students' course fieldwork which turned out to be a unique one as identified from the responses of the people of that area. Students conducted a 3-hour long survey, and it was one of its very first kind to be conducted in that area.

At the end of the day, based on the responses of the local people, it was briefly summarized that 85% people showed positive response, 10% mixed feelings and 5% no annotations regarding their resettlement caused by the establishment of the Padma Multipurpose Bridge project.


CBR & IEEE EMBS AIUB Chapter organized a Seminar on "Biomedical Research for Sustainable Development"

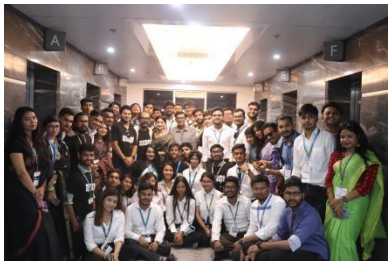
On Wednesday, 27, July 2022, the Center for Biomedical Research (CBR) of the Dr. Anwarul Abedin Institute of Innovation, American International University – Bangladesh (AIUB) in collaboration with the IEEE Engineering in Medicine and Biology Society AIUB Chapter successfully hosted a Seminar titled - "Biomedical Research for Sustainable Development". The objective of this seminar was to offer a series of useful opinions involving the opportunities and obstacles of researching and developing methods to increase sustainability in the biomedical field. Prof. Dr. Md. Abdul Mannan, Director, Faculty of Engineering, AIUB; inaugurated the seminar. At first, he welcomed everyone, and he talked briefly about the field of Biomedical Engineering and the importance of sustainability.

The first speaker of the event was Dr. Mohammad Hasan Imam, Associate Professor, Faculty of Engineering, AIUB. The speaker briefly explained the objectives of his session and explained IEEE EMBS to everyone. He later discussed the sustainability goals published by United Nations (UN) (3 and 9). He reviewed the Bangladeshi perspective of biomedical engineering and explained various technics of Biomedical imaging, rehabilitation engineering, pacemakers, and sensor-based early disease detection systems. In the second half, the other speaker Associate Professor Dr. Humayra Fredous, Deputy Director, Center for Biomedical Research (CBR), Dr. Anwarul Abedin Institute of Innovation & Head-in-Charge, Department of Physics, AIUB; discussed the current scenario of the biomedical field and showed some illustrations of how medical technology works currently in the global arena. She briefly discussed Neural Fields Theory, Brain dynamics, Linear Accelerator, Nuclear Medicine Biophysics, and methodologies regarding different research approaches in the Biomedical sector. Subsequently, she discussed UN sustainable development goals No. 3, 4, and 17 and showed how these goals can help to improve the effectiveness of Biomedical technology.

Afterward, Prof. Dr. Md. Abdur Rahman, Associate Dean, Faculty of Engineering & Director, Dr. Anwarul Abedin Institute of Innovation, AIUB and Prof. Dr. Md. Abdul Mannan, Director, Faculty of Engineering, AIUB; presented tokens of appreciation to the honorable speakers. At the end of the seminar, the closing speech was given by Prof. Dr. Md. Abdur Rahman where he addressed the ethical aspects of the engineering field and thanked the honorable speakers.

AIUB FILM CLUB (AFC): PROMOTIONAL CAMPAIGN FOR "HAWA"

The culture of a nation resides in the hearts and souls of its people. Culture does not make people; people make the culture. And the best way to share it is to experience it. But not everyone is able to travel across regions and live the dream, which is why we found the next best things – books, music, and of course, films. Stories told through the pages or rhythms certainly have a charm of their own, but witnessing its entirety played out right before you as though you are in it, is indeed something else. At the American International University – Bangladesh (AIUB), with the aim to 'present and promote culture', the AIUB Film Club (AFC), collaborated with Facecard Productions to organize a promotional campaign for one of the most-awaited upcoming Bangladeshi movies, "Hawa". A mystery-drama and the directorial debut by Mejbaur Rahman Sumon, that revolves around eight fishermen and an odd gypsy girl trapped in a fishing trawler where strange incidents unravel the story that was based on a fairy tale. The event was opened by Mr. Manzur H. Khan, the Director for the Office of Student Affairs (OSA) at AIUB, followed by a stage performance by social influencer Ms. Masuda Khan, also known as Masu Ake. Afterwards, Mr. Sumon, along with the star-studded cast of Mr. Chanchal Chowdhury, Ms. Nazifa Tushi, and Mr. Nasir Uddin Khan, made their way to the stage, where they showcased the making of the movie along with its synopsis. The shooting began back in 2019, when the entire cast and crew spent nearly 2 months on the Bay of Bengal but due to Hurricane Bulbul, they got stranded in the ocean with no means of communication for 5 days. In a way, they have truly portrayed their own experiences onto the screen. The team was also accompanied by the musician, Mr. Tanzir Tuhin, Mr. Emon Chowdhury, and the band, 'Meghdol', who all put up incredible musical performances that had the students thoroughly enjoyed. The program ended with a vote of thanks for the guests, organizers, and of course, the audience, followed by an invitation to everyone to go watch the film, releasing in theatres on the 29th of July 2022. The university applauds AFC's efforts to foster the local culture, folk music, and an original storyline onto the big screen and looks forward to many more such initiatives that reflect our arts, music, and literature and bring our ideas to life.



AIUB SOCIAL WELFARE CLUB, "SHOMOY": BLOOD DONATION CAMPAIGN 2022

We are all born with the ability to change lives, whether it is through our words, beliefs or acts of kindness. And they say, you don't have to be a doctor to save lives – you can save three by donating one pint of blood! Over the past 2 years of the pandemic wreaking havoc across the globe, we have had to witness and possibly even bear the sufferings and loss of our loved ones, not just to the virus, but to multiple health complications from depression to heart conditions. The sudden rush to the hospital, frantic calls to friends, relatives, medical facilities, etc. are all too familiar and painful to recall, as we do everything in our power for those we care about. But sometimes our expected miracles become imagined mirages when we cannot find the right blood group from the blood banks or reach a potential donor in time. And the American International University – Bangladesh (AIUB) has always encouraged its students and staff to serve its community, working towards ensuring that no one has to endure alone. In an united effort to help those in need, the AIUB Social Welfare Club, 'Shomoy', organized one of their regular activities, the Blood Donation Campaign 2022, together with the Bangladesh Thalassemia Samity Hospital (BTSH). On the 24th of July 2022, the day-long program was inaugurated by Mr. Pius Costa, the Registrar of AIUB, along with academic and administrative officials of the university, and the representatives from BTSH. Participants were provided with refreshments and issued donor cards for their contributions, in hope of enabling them to continue supporting the cause further. Around 165 donors did their part and contributed towards giving others a new lease on life. AIUB takes great pride in its students for being socially responsible and proactive in bringing about the change they want to see in the world, not just today, but for the days to come. It is these initiatives and involvement that bind us together and keep humanity, and us humans, alive.



BBA is the Champion of ACL 2022 – Intra-department Football Tournament

The Office of Sports, AIUB has successfully organized the 2022 version of the AIUB Champions League (ACL) at the AIUB Football field inside AIUB Campus, Kuratuli, Dhaka from July 3 – July 6, 2022. A total number of 32 teams and 352 players took part in this football tournament. There was a trial session before the tournament where players were selected, and respective departmental teams were formed. Dr. Carmen Z Lamagna, Vice Chancellor, AIUB opened the tournament on July 3, 2022, in presence of other faculty members and officials of AIUB. Throughout 4 days of tough competition was held and finally 2 deserving teams reached the final - CLUB BRUGGE (MBA) and FC BARCELONA (BBA). BBA-FC Barcelona came out as the Champion in the final beating their seniors of Club Brugge – MBA team by 7-2 goals. All matches of ACL 2022 were broadcast live in the office Facebook page of AIUB (www.facebook.com/aiub.edu) and are also available for viewing later.

Ms. Nadia Anwar, Founder & Member, AIUB Board of Trustees distributed the prizes among the winners in various categories. Dr. Abdur Rahman, Associate Dean, Faculty of Engineering and Dr. Farheen Hassan, Director, BBA Program were also present during the prize distribution along with other faculty members and officials.


Final of the AICC 2022 held

The Dhaka Commerce College is the champion of the AIUB Intercollege Cricket Championship 2022. The final match was played on Thursday, January 13, 2022 at the AIUB Field between Dhaka Commerce College and BAF Shaheen College, Kurmitola. Dhaka Commerce College beat BAF Shaheen College by 54 Runs.

The prize giving ceremony of the tournament was held right after the final match. Prof. Dr. Abdur Rahman, Associate Dean, Faculty of Engineering, Mr. Mashiour Rahman, Associate Dean, Faculty of Science and IT, Mr. Manzur H Khan, Director, Office of Student Affairs and Mr. Ziarat H Khan, Deputy Director, Office of Student Affairs along with special guests, Mr. Joyraz Sheikh Emon and Mr. Sanjit Saha Dip, National Cricketers and students of AIUB were present and gave away prizes among the winners. Faculty Members and officials of AIUB witnessed the final match and were also present during the prize giving ceremony.

Winners of the champion in different categories are as follows:

Champion: Dhaka Commerce College

Runner-up: BAF Shaheen College, Kurmitola

Third Place: Gulshan Model High School & College

Fair Play: BAF Shaheen College, Dhaka

Man of the Tournament: Fahim (Dhaka Commerce College)

Man of the Final: Raihan (Dhaka Commerce College)

Best Batsman: Sumon (BAF Shaheen College, Dhaka)

Best Bowler: Dipto (BAF Shaheen College, Kurmitola)

Most Amazing Player: Imam (BAF Shaheen College, Kurmitola)

252 players from 18 colleges of Dhaka City played in the 5-day long tournament from January 9 to January 13, 2022, at the AIUB Field. All matches of the tournament were broadcast live in the office Facebook page of AIUB (www.facebook.com/aiub.edu).

AIUB Social Welfare Club – "Shomoy": "Standing with the Flood-Effected 2022"

Natural disasters rob us of our sense of control in the world, rendering us helpless to its chaos and leaving us to pick up the pieces that lie in its wake. But just as rain turn into floods, one drop at a time, while alone, we may be drops of water, but together, we can form an ocean. And it is at times of such tragedy and turmoil, that we re-find hope in mankind.

This year, record-breaking rainfall causing a flash flood in upstream Meghalaya and Assam areas of India, followed by torrential rainfall in the north-eastern districts of Bangladesh lead to more 70% of the Sylhet division being submerged, marooning around 40 lakh people in several upazilas. But within days, various voluntary and charitable organizations came forward to aid in the recovery and restoration of the flood-effected regions. From UNICEF, United Kingdom, European Commission, Prime Minister's Office, and several other local organizations and individuals, everyone did whatever they could to lend a helping hand and overcome the unprecedented calamity. And the American International University – Bangladesh (AIUB) takes pride in the fact that the AIUB Social Welfare Club – Shomoy, a voluntary student organization working towards social development, took an initiative to run a fund-raising campaign to support the cause. After a week-long campaign, donations from students and staff enabled the club to distribute relief packages of flattened rice, puffed rice, molasses, dates, first-aid medication, saline, sanitary pads, candles, lighters, water, and polythene packets, to over 260 households in need, with the help of local authorities, on the 29th of June 2022, across the flood-effected areas of Moghla Bazar in Sylhet.

In such dire circumstances, every bit of contribution plays a valuable role in getting through the calamity, rising above, and persevering to rebuild a better tomorrow, and the university and its student community hopes to continue doing that and serving the greater good.



FBA, AIUB Organizes 'Meet and Greet' for the Freshers

The Faculty of Business Administration (FBA), AIUB, organized an interactive session entitled "Meet and Greet, the FBA Family" for the BBA Freshman Students of the Summer 2021-2022 Semester on Thursday, May 26, 2022, held at the AIUB Multi-purpose Hall, Annex 7. The program was attended by the BBA Freshman students, the faculty members, the Department Heads and representatives, the Directors, and the Dean-in charge of the FBA Program.

The session commenced with the welcome speech by Prof. Dr. Tazul Islam, Dean, Faculty of Arts and Social Sciences, and Dean-in charge, Faculty of Business Administration, followed by a welcome address by Prof. Dr. Nisar Ahmed, Director, Graduate Program, FBA, and special remarks by Dr. Farheen Hassan, Director, Undergraduate Program (BBA), FBA.

The session was further carried out by Mr. Stanley Rodrick, Senior Assistant Professor, Dept. of Marketing, who gave a brief about FBA Program and oriented the freshman students about the BBA Course Offerings – Core and Major Courses, Academic Loads, Graduation Requirements, Academic Awards, FBA Web, and Facebook page, etc. After the introductory discussion, Dr. Mohammad Faridul Alam, Head, Dept. of Accounting, addressed the various Academic policies such as the Grading system, Probation formalities, Course Retaking policies, Scholarship and Grants, Registration formalities, Examination guidelines, and other relevant issues which are essential for the freshman students to understand and follow. The session continued with a discussion of the different student-based activities by Dr. Khondaker Sazzadul Karim, Head, Dept. of Marketing and THM. He had explained the FBA Dean's List Award criteria, the student organizations and club activities at AIUB, and the student-based programs and competitions organized by the different Departments of the Faculty of Business Administration.

The session then ended with the lively song performances by the AIUB Performing Arts Club (APAC) members, in which the students actively participated and enjoyed the overall arrangements.

The program was coordinated and facilitated by the 'Freshman Orientation and Graduate Farewell Committee' members; Mr. Stanley Rodrick, Mr. Md. Joynal Abedin, Dr. Mohammad Ali, Mr. Niaz Mohammad, and Mr. Hamidul Islam, and hosted by Ms. Shahnaz Zarin Haque, the faculty members from the FBA Program. The session was supported by Mr. Zahidul Karim Adib, Officer of the FBA's Dean Office, and Mr. Md Mehedi Hasan Emon, TA from the FBA, under the direct guidance and supervision of Dr. Farheen Hassan, Director, Undergraduate Program (BBA), FBA.

The FBA, AIUB is especially thankful to the AIUB Management, Administration, and Office of Student Affairs (OSA), AIUB, for their support in arranging the session successfully.

Adieu! To the BBA Graduating Students of Spring 2021-2022 Semester

The Faculty of Business Administration (FBA), AIUB, organized a farewell program entitled "Adieu! To the BBA Graduating Students" of the Spring 2021-2022 Semester on Monday, May 16, 2022, held at the Multipurpose Hall, Annex 7 at the AIUB Campus. The program was attended by 173 BBA students who had completed their BBA Internship Defense, the faculty members, the Departmental representatives, the Department Heads, the Directors of the FBA Program, and administrative representatives from the different Offices of AIUB.

The farewell program commenced with the welcome speech by Prof. Dr. Nisar Ahmed, Director, Graduate Program, FBA, followed by a farewell song by Mr. Soumendra Sankar Das, Associate Professor, Dept. of Marketing, FBA. Some of the graduating students shared their best memories at AIUB, which was followed by a song sung by a student. After the lively performance by the student, the EMCEE of the program, Ms. Shahnaz Zarin Haque, Assistant Professor, Dept. of OSCM, FBA, invited Dr. Mohammad Faridul Alam, Head, Dept. of Accounting, and Dr. Khondaker Sazzadul Karim, Head, Dept. of Marketing and THM, to share their opinions and aspire the graduating students to excel in their relevant field of study.

The program then continued with a song performance by Ms. Sadia Rahman, Assistant Professor, Dept. of OSCM, FBA, followed by the students sharing their best memories with faculty members at AIUB, and finally, another song is sung by Ms. Tamanna Nazneen Rahman, Senior Lecturer, Dept. of Management and HRM, FBA. Mr. Ziarat H. Khan, Deputy Director, Student Service and Welfare, Office of Student Affairs (OSA), then shared his views on the students' development. After his speech, the program's EMCEE invited Dr. Farheen Hassan, Director, Undergraduate Program (BBA), FBA, to deliver the End Note speech to the students, followed by the Closing speech by Mr. R. Tareque Moudud, Director, Office of Placement and Alumni (OPA).

At the program's conclusion, all the faculty members sang a famous song by Poet Rabindranath Tagore, "Purano Shey Din Er Kotha," as a gesture of "Adieu" to all the BBA graduating students of the Spring 2021-2022 Semester. The program was coordinated and facilitated by Mr. Stanley Rodrick, Mr. Hamidul Islam, Mr. Md. Joynal Abedin, Dr. Mohammad Ali, and Mr. Niaz Mohammad, the faculty members from the FBA Program, and supported by Mr. Zahidul Karim Adib, Officer of the FBA's Dean Office, Mr. Md Mehedi Hasan Emon and Md. Zahid Hasan Shovon, TAs from the FBA Program, under the direct guidance and supervision of Dr. Farheen Hassan, Director, Undergraduate Program (BBA), FBA.

Dr. Anwarul Abedin Lecture Series “Point-of-Care and On-Site Diagnostics”

As a part of the "Dr. Anwarul Abedin Lecture Series", a regular development initiative of the American International University-Bangladesh (AIUB), a research talk titled "Point-of-Care and On-Site Diagnostics" was held at Multipurpose Hall, AIUB from 05:00 PM- 07:00 PM (BDT) on May 11, 2022. The Center for Nanotechnology Research (CNR), AIUB organized this event and invited prominent researcher Dr. Muhammad J. A. Shiddiky (Associate Professor, Griffith University, Queensland, Australia) as distinguished speaker and Dr. Md. Tofazzal Islam (Professor, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur) as session chair.

Dr. Muhammad J.A. Shiddiky began his speech describing how several biomarkers and biosensors function to detect tumours and infectious cells in the human body. Biosensors can readily identify illness at an early stage, and point-of-care and on-site diagnostic instruments are being developed throughout the world to do so. He went on to say that, like humans, early identification of diseases is critical for plants and also discussed several on-site diagnostic techniques for detecting plant diseases in the field. As session Chair, Dr. Md. Tofazzal Islam (Professor, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur) examined the issue given by Dr. Muhammad J.A. Shiddiky. Professor Tofazzal discussed prevalent plant infections, detection methodologies, and instruments, as well as Bangladeshi researchers' potential to contribute to agricultural development and crop output. He concluded by stating that abundant research money and patronising researchers may accelerate innovation.

Following that, Prof. Dr. A.B.M. Siddique Hossain (Professor & Dean, Faculty of Engineering, AIUB) admired the honourable speaker for his outstanding lecture on frontier technologies and appreciated the participants. He along with Dr. Md. Abdur Rahman (Professor & Associate Dean, Faculty of Engineering, AIUB) presented the token of appreciation to the honourable speaker. Dr. Mohammad Mahbub Rabbani (Associate Professor, Department of Chemistry, and In-Charge of CNR) moderated the lecture series.

The seminar was graced by the presence Dr. S. Mosaddeq Ahmed (Professor & Head, Department of Chemistry, AIUB), Dr. Humayra Ferdous (Associate Professor & Head-in-Charge, Department of Physics, AIUB), Dr. Md. Kamrul Hassan (Associate Professor, Faculty of Engineering, AIUB), Dr. Farzana Khalil (Assistant Professor, Department of Chemistry, AIUB), Dr. Md. Tariqul Islam (Senior Assistant Professor, Department of Chemistry, AIUB), Mr. Md. Saniat Rahman Zishan (Associate Professor & Head, Department of Computer Engineering, AIUB), Dr. Effat Jahan (Assistant Professor, Faculty of Engineering, AIUB), Dr. Md. Rifat Hazari (Assistant Professor, Faculty of Engineering, AIUB), Mr. Kawshik Shikder (Assistant Professor, Faculty of Engineering, AIUB), Mr. Abul Hasnat (Assistant Professor, Faculty of Engineering, AIUB), Mr. Md. Rabiul Islam (Lecturer, Faculty of Engineering, AIUB). Students and faculty members from other universities were present among the participants.



"Oder Eid, Amader Khushi" Campaign 2022 by Shomoy Club

Albert Einstein once said, "Those who have the privilege to know have the duty to act." Because we may not be able to help everyone, but everyone can help someone. It is with that very notion, like every year, even throughout the pandemic, the AIUB Social Welfare Club – Shomoy, arranged their annual flagship fund-raising campaign for underprivileged children, "Oder Eid, Amader Khushi (Their Eid, Our Happiness) 2022". Eid-Ul-Fitr is one of the major religious festivals for the Muslim community, but it is also an occasion that creates numerous childhood memories that are cherished for life. Due to their financial constraints, many struggling with poverty, is unable to celebrate the occasion of Eid. So, this year, students, faculty members, administrative officials, and the management of the American International University – Bangladesh (AIUB) came together and contributed around 2,00,000 BDT towards the noble cause. On the 29th of April 2022, the AIUB Shomoy Club distributed Eid rations like rice, oil, onions, potatoes, salt, sugar, spices, vermicelli, milk, etc. that are the basic requirements for traditional meals prepared by Muslim households for their families during the auspicious festival. As a result, over 200 students of 'Kathpencil Pathshala', a school for underprivileged children in the Tejgaon area, along with their families truly enjoyed and commemorated the joy and spirit of Eid. In that light, moving forward, everyone at the university hopes to continue sharing the blessings, seeking forgiveness, and easing the suffering of all, together.



All the World's a Stage: Drama Contest Organized by the Department of English

Spring is the usher of regeneration and revival. As American International University-Bangladesh resumed offline classes for the spring 2022 semester, the campus soon rejuvenated with academic activities from students and faculties. Moreover, students were vocal for resuming the regular co-curricular activities under the banner of different clubs and departments of the university. Responding to the appeal of the students, the Department of English organized a drama contest celebrating the classical Shakespearean plays titled, "All the World's a Stage". The contest was held in the afternoon, on 30th March 2022 at Multi-purpose Hall in Annex 7. Performances from four plays by William Shakespeare namely Merchant of Venice, The Tempest, Hamlet and Macbeth were staged by the competing groups. After the contest Team Merchant of Venice was announced champion and Team Macbeth was declared runners-up. The honorable Vice Chancellor of AIUB, Dr. Carmen Z. Lamagna and a special guest Justice J B M Hasan of the Supreme Court attended the prize giving ceremony and distributed crests and certificates among the winners. The performances were adjudicated by three faculties of the department of English. Among the audience, Prof. Dr. Tazul Islam, Dean, Faculty of Arts and Social Sciences, Dr. ABM Rahmatullah, Associate Dean (FASS), Mr. M Hamidul Haque, Head, Department of English along with other faculties from various departments and officials of AIUB were present. In addition, a huge audience comprising the students of AIUB enjoyed the show with cheers and excitement. Earlier, students of the department voluntarily formed four teams comprising a maximum of 7 members in each. With the constant supervision and grooming by the faculties belonging to the subcommittee for cultural programs of the department of English, the teams regularly rehearsed and were groomed for two weeks period prior the competition.

1. Witches from Macbeth
2. Prospero and Caliban from The Tempest
3. Shylock in the final scene from The Merchant of Venice
4. Ophelia from Hamlet



INTERACTIVE SESSION OF "BRISTOL2BEIJING" AT AIUB

"The human spirit is stronger than anything that can happen to it." And 'Bristol2Beijing' is a testament to just that. On the 27th of March 2022, the American International University – Bangladesh (AIUB) hosted an interactive session on the AIUB campus premises, with Bristol2Beijing, a unique initiative by Luke Grenfell-Shaw, an inspiring 'canliver', who is living with cancer but hasn't forgotten how to live yet! Diagnosed with cancer at the age of 24, he decided that the disease would only be a chapter in his life, not the whole story. In an attempt to create awareness and raise funds to fight cancer, he shared his incredible journey of travelling 30,000 km across 30 countries from Bristol to Beijing on the 3 wheels of a tandem bicycle. Since before the pandemic, he has been out to show that even when one is living with cancer, they can still strive for a rich and fulfilled life. With nearly 300 students joining the session, he interacted with them on the dreams and aspirations we have, as well as the challenges and obstacles that we face along the way, he shared his own experiences from undergoing chemotherapy to embarking on an incredible endeavour to promote and empower the fight against cancer around the world. Afterall, even the word cancer has 'can' in it.

As a part of the initiative, the AIUB Social Welfare Club – Shomoy, facilitated by the Office of Student Affairs (OSA), will be organizing be a fund-raising campaign run in the coming week for World Child Cancer in Bangladesh, encouraging students and staff to participate in the program as well. So with the belief of letting one's faith be bigger than one's fear, Bristol2Beijing is working towards supporting 5 proactive cancer-related charities and furthering the global efforts in enabling cancer victims and survivors to live life to the fullest.

AIUB Premier League T-10 Cricket tournament held

On Wednesday, March 23, 2022, the AIUB Premier League T-10 Cricket Championship 2022 was inaugurated by the Honorable Vice Chancellor of AIUB Dr. Carmen Z Lamagna at the university playground. 18 departmental teams of the American International University-Bangladesh (AIUB) took part in the tournament. The tournament was held as per international T-10 format. It is noteworthy that AIUB is the Education Partner of the Bangladesh Cricket Board (BCB), under which around 22 national cricket players study in various academic programs at AIUB. Shakib Al Hasan, Mahmudullah Riyad, Abu Haider Rony, Liton Das, Sabbir Rahman, Shamim Patowary, Tanzid Hasan, Shykat Ali, Munim Shahriar, Akbar Ali Khan, Kamrul Hasan Rabbi, Afif Hossain, Anamul Haque Bijoy, Junayed Siddique, Tanbir Hayder are to mention some of the renowned ones. Most of them took part in this tournament from their respective department.

The Final match of the 5 days long Tournament was held on Tuesday, February 29, 2020. In the final match the CS Challengers team defeated the FASS Firebirds team by 10 wickets and became the Champion. Archi Avatars won against BBA burners in the third-place winner. BBA Burners won fair play award. In a special female match Blue Tigress won by 43 runs against Green Tigress. All matches of the tournament were broadcast live in the office Facebook page of AIUB (www.facebook.com/aiub.edu).

The prize giving ceremony of the tournament was held on March 31, 2022, in presence of the Vice Chancellor of AIUB Dr. Carmen Z Lamagna. Faculty Members and officials of AIUB witnessed the final match and were also present during the prize giving ceremony.

"RETURN TO FREEDOM" CONCERT AT AIUB

Life has long been running in the 'new normal', with lockdowns, quarantines, and isolation being the bigger part of our lives for the past 2 years. But as restrictions become less rigid with the pandemic somewhat slowing its ravage, this year, celebrating the 51 years of Bangladesh's Independence and the return of students to their university life on campus, the American International University – Bangladesh (AIUB) organized the "Return to Freedom" Concert. On the 31st of March 2022, the program rejoiced with the amazing musical performances of the AIUB Performing Arts Club (APAC), Minar Rahman, Joler Gaan, Tahsan Rahman Khan, and Dolchhut. The concert was open to all students and alumni of the university, who enjoyed the event together with faculty members, administrative officials, and the management. Commemorating our re-found freedom, swaying with the tunes and rhythms, it was indeed a much-needed break from the sombre academic lectures and assessments, where the students brought the energy and enthusiasm to a cultural program, while the alumni reconnected with their alma mater for an evening of revitalization. Looking forward to a future free from the uncertainties of the world today, AIUB hopes to pursue the continuity of not just education, but the overall experience of a student life in the university.



Faculty Research and Publication

Comparative Analysis of Data Mining Techniques to Predict Cardiovascular Disease

Author: PROF. DR. DIP NANDI et al.

Brief Description:

Cardiovascular disease is the leading cause of death. In recent days, most people are living with cardiovascular disease because of their unhealthy lifestyle and the most alarming issue is the majority of them do not get any symptoms in the early stage. This is why this disease is becoming more deadly. However, medical science has a large amount of data regarding cardiovascular disease, so this data can be used to apply data mining techniques to predict cardiovascular disease at the early stage to reduce its deadly effect. Here, five data mining classification techniques, such as: Naïve Bayes, K-Nearest Neighbors, Support Vector Machine, Random Forest and Decision Tree were implemented in the WEKA tool to get the best accuracy rate and a dataset of 12 attributes with more than 300 instances was used to apply all the data mining techniques to get the best accuracy rate. After doing this research people who are at the early stage of cardiovascular disease or probably going to be a victim can be identified more accurately.

Source: https://www.mecs-press.org/ijitcs/ijitcs-v14-n6/IJITCS-V14-N6-3.pdf

The efficacy of deep learning based LSTM model in forecasting the outbreak of contagious diseases

Author: DR. MD. HABIB ULLAH et al.

Brief Description:

The coronavirus disease that outbreak in 2019 has caused various health issues. According to the WHO, the first positive case was detected in Bangladesh on 7th March 2020, but while writing this paper in June 2021, the total confirmed, recovered, and death cases were 826922, 766266 and 13118, respectively. Due to the emergence of COVID-19 in Bangladesh, the country is facing a major public health crisis. Unfortunately, the country does not have a comprehensive health policy to address this issue. This makes it hard to predict how the pandemic will affect the population. Machine learning techniques can help us detect the disease's spread. To predict the trend, parameters, risks, and to take preventive measure in Bangladesh; this work utilized the Recurrent Neural Networks based Deep Learning methodologies like LongShort-Term Memory. Here, we aim to predict the epidemic's progression for a period of more than a year under various scenarios in Bangladesh. We extracted the data for daily confirmed, recovered, and death cases from March 2020 to August 2021. The obtained Root Mean Square Error (RMSE) values of confirmed, recovered, and death cases indicates that our result is more accurate than other contemporary techniques. This study indicates that the LSTM model could be used effectively in predicting contagious diseases. The obtained results could help in explaining the seriousness of the situation, also may help the authorities to take precautionary steps to control the situation.

Source: https://www.sciencedirect.com/science/article/pii/S2468042721000865

Contextual design guidelines of a Sensory Garden for Children with Autism Spectrum Disorder (ASD) in Bangladesh

Author: MD. SARIFUL ISLAM et al.

Brief Description:

Bangladesh's number of children with autism spectrum disorder (ASD) rises daily. Evidence shows that issues in sensory integration have a significant impact on the behavior of a child with ASD. Due to sensory integration, children with ASD face difficulties detecting, comprehending, and organizing sensory information from the body and surrounding environment, resulting in hyper and hypo-sensitive reactions. This paper aims to generate guidelines for designing a sensory garden to help sensory integration for children with ASD in Bangladesh to lessen their struggles. First, the authors reviewed the literature on children's behavior with ASD, their problems, and how a sensory garden can help them reduce their problems. Then, they conducted informal interviews with two therapists who work with autistic children daily and 12 caregivers from four organizations to gain insight into the most significant physical impediments children with ASD face in Bangladesh. These interviews helped to generate a checklist for evaluating case studies. Then, two case studies are done on foreign sensory gardens to understand the landscape architects' considerations in creating a multisensory garden. Finally, the authors provide recommendations for designing a sensory garden for children with ASD using qualitative analysis to meet their unique needs and improve their daily lives.

Source: https://seu.edu.bd/seuja/downloads/vol_02_issue_01_Jun_2022/SEUJA-Vol02Issue01-1.pdf

Design and Deployment of E-Health System Using Machine Learning in the Perspective of Developing Countries

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

Brief Description:

Machine learning is tightening its grasp on many sectors of modern life and medical sector is not an exception. In developing countries like Bangladesh, disease classification process mostly remains manual, time consuming and sometimes erroneous. Designing an E-health system comprised of disease identification model would be a great aid in such circumstances. The automation of identifying the diseases with the help of machine learning will be more accurate and time-saving. In this paper, Decision Tree, Gaussian Naive-Bayes, Random Forest, Logistic Regression, k-NN, MLP, and SVM machine learning techniques are applied for three diseases: Dengue, Diabetes, and Thyroid. MLP for Dengue, Logistic Regression for Diabetes, and Random Forest for Thyroid performed the best with accuracies of 88.3%, 82.5%, and 98.5% respectively. Additionally, a medical specialist recommendation model and a medicine suggestion model are also integrated in the proposed E-Health system.

Source: https://www.igi-global.com/article/design-deployment-health-system-using/293186

Enhancing the security of E-Health services in Bangladesh using blockchain technology

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

The telemedicine service concept was mainly established to benefit the underprivileged people from rural areas of a country. However, due to the low literacy and awareness rates among rural population of Bangladesh, the service is not much effective. This paper represents a study on the awareness of the rural population of telemedicine service in Bangladesh and few key findings indicate how the awareness could be increased. The research also suggests that utilizing blockchain technology can enhance the data security and privacy. The research reveals some of the findings which can raise the awareness and popularity of telemedicine service among rural population. We have proposed implementation of blockchain technology which can vastly improve the security issue.

Source: https://link.springer.com/article/10.1007/s41870-021-00821-9

Design and Deployment of E-Health System Using Machine Learning in the Perspective of Developing Countries

Author: CHOWDHURY AKRAM HOSSAIN et al.

Brief Description:

Machine learning is tightening its grasp on many sectors of modern life and medical sector is not an exception. In developing countries like Bangladesh, disease classification process mostly remains manual, time consuming and sometimes erroneous. Designing an E-health system comprised of disease identification model would be a great aid in such circumstances. The automation of identifying the diseases with the help of machine learning will be more accurate and time-saving. In this paper, Decision Tree, Gaussian Naive-Bayes, Random Forest, Logistic Regression, k-NN, MLP, and SVM machine learning techniques are applied for three diseases: Dengue, Diabetes, and Thyroid. MLP for Dengue, Logistic Regression for Diabetes, and Random Forest for Thyroid performed the best with accuracies of 88.3%, 82.5%, and 98.5% respectively. Additionally, a medical specialist recommendation model and a medicine suggestion model are also integrated in the proposed E-Health system.

Source: https://www.igi-global.com/article/design-deployment-health-system-using/293186

Enhancing the security of E-Health services in Bangladesh using blockchain technology

Author: CHOWDHURY AKRAM HOSSAIN et al.

Brief Description:

The telemedicine service concept was mainly established to benefit the underprivileged people from rural areas of a country. However, due to the low literacy and awareness rates among rural population of Bangladesh, the service is not much effective. This paper represents a study on the awareness of the rural population of telemedicine service in Bangladesh and few key findings indicate how the awareness could be increased. The research also suggests that utilizing blockchain technology can enhance the data security and privacy. The research reveals some of the findings which can raise the awareness and popularity of telemedicine service among rural population. We have proposed implementation of blockchain technology which can vastly improve the security issue.

Source: https://link.springer.com/article/10.1007/s41870-021-00821-9

Contextual design guidelines of a Sensory Garden for Children with Autism Spectrum Disorder (ASD) in Bangladesh

Author: IRFAT ALAM et al.

Bangladesh's number of children with autism spectrum disorder (ASD) rises daily. Evidence shows that issues in sensory integration have a significant impact on the behavior of a child with ASD. Due to sensory integration, children with ASD face difficulties detecting, comprehending, and organizing sensory information from the body and surrounding environment, resulting in hyper and hypo-sensitive reactions. This paper aims to generate guidelines for designing a sensory garden to help sensory integration for children with ASD in Bangladesh to lessen their struggles. First, the authors reviewed the literature on children's behavior with ASD, their problems, and how a sensory garden can help them reduce their problems. Then, they conducted informal interviews with two therapists who work with autistic children daily and 12 caregivers from four organizations to gain insight into the most significant physical impediments children with ASD face in Bangladesh. These interviews helped to generate a checklist for evaluating case studies. Then, two case studies are done on foreign sensory gardens to understand the landscape architects' considerations in creating a multisensory garden. Finally, the authors provide recommendations for designing a sensory garden for children with ASD using qualitative analysis to meet their unique needs and improve their daily lives.

Source: https://seu.edu.bd/seuja/downloads/vol_02_issue_01_Jun_2022/SEUJA-Vol02Issue01-1.pdf

Fractionation and Contamination Assessment of Zn, Cu, Fe, and Mn in the Sundarbans Mangrove Soils of Bangladesh

Author: PROFESSOR DR. MD. FARUQUE HOSSAIN et al.

This study was conducted to show the effects of high PAH levels on the external and internal structures as well as the functioning of a Poaceae species – Bermuda grass – during phytoremediation process. Two modalities – Tn: unpolluted planted soil and Tp: polluted planted soil – are applied to the monoculture of Bermuda grass for pollution at 10%, 20%, and 30% (weight/weight) with fuel oil, and co-cropping with Goosegrass in soils polluted at 10%. Morphological results revealed that monoculture is better than co-cropping as the sociability of the two species is negatively affected by PAHs. Contrary to monoculture, in the co-cropping the relative growth rate of Bermuda grass morphological parameters is decreasing over time in Tp. For monoculture, the aboveground plant density of Bermuda grass in Tp is not significantly different to Tn, while its specific root length is higher in Tn than Tp. Anatomical and physiological analyses of Bermuda grass show that PAHs impacted the hydromineral nutrition of this species. In fact, the vascular bundles of the stems and roots of Bermuda grass were less numerous in Tp, and the chlorophyll synthesis was 50% inhibited. Despite the slower physiological processes of Bermuda grass in polluted soils, the phytotoxicity of very high PAH levels is not fatal to this species. Its development and evolution on soils highly polluted with PAHs and its phytoremediation potential (more than 95% for total petroleum hydrocarbons and up to 100% for chrysene) therefore recognize it as particularly suitable for hydrocarbon phytoremediation, with wide geographical application thanks to its cosmopolitan nature.

Source:
https://www.researchgate.net/publication/365003258_Fractionation_and_Contamination_Assessment_of_Zn_Cu_Fe_and_Mn_in_the_Sundarbans_Mangrove_Soils_of_Bangladesh

Assessment of environmental quality of an area adjacent to the relocated tannery industries at Hemayetpur, Bangladesh

Author: PROFESSOR DR. MD. FARUQUE HOSSAIN et al.

The deterioration of environmental quality due to wastes generated from tannery industries is an alarming global issue in Bangladesh. To assess this problem in an area adjacent to the recently shifted tannery industries at Hemayetpur, soil, water and plant samples are collected from upstream as control, secondary treatment ponds, main discharge station and downstream at 500, 1000, 2000 and 3000 m across the areas and are analyzed for environmental quality. The water samples of Dhaleswari river are slightly acidic to moderately alkaline pH from 6.55 to 10.60, high TDS from 176 to 10,433 mg/l, EC from 305 to 18,206 µS/cm, nitrate from 0.14 to 194 mg/l, sulfate from 10.72 to 8922 mg/l, moderate phosphate from 0.58 to 7.2 mg/l and low DO from 1.61 to 5.50 mg/l. It is clearly noticed that most of the water parameters exceeded WHO guideline values except pH and phosphate that indicates Dhaleswari river water quality is declining slowly.

The available concentrations of nitrogen, phosphorus, potassium and sulfur in soil varies from 12 to 263, 1.19 to 38, 17 to 170, 251 to 680 mg/kg, respectively, whereas, the total concentration ranges from 0.03 to 0.14%, 0.090 to 0.14%, 0.12 to 0.48%, and 0.11 to 0.42%, respectively. In soil samples, total phosphorus and potassium concentrations are increased but sulfur decreased. The soils are found acidic in nature that have high EC 8.17 dS/m. A significant positive correlation is found with each other of nitrogen, phosphorus, potassium and sulfur concentrations in soil samples.

Source: https://doi.org/10.3329/dujbs.v31i1.57914

The effect of COVID 19 on the Supply Chain Management of the RMG sector in Bangladesh.

Author: PROFESSOR DR. MD. FARUQUE HOSSAIN et al.

Brief Description:

Readymade garments (RMG) are the largest export earner for Bangladesh, starting from $31.57 million, has now boomed to $24 billion in fiscal year 2019-20. Although this is less than the previous year but still this sector is saving the total economy of Bangladesh. Amid the COVID-19 pandemic when the economy of the whole world on the edge, Bangladesh economy still trying to fight depending on apparel industry. Due to COVID-19 pandemic, many things are changed in this factor and we are still trying to figure out how we can cope up with the situation. The unprecedented pandemic effect of COVID-19 disrupted the entire supply chain of RMG sector. Along with it many more problems come in front which we ignored in the past. Decreasing lead time, over dependency on few countries for raw material, declining percentage female worker are some of these problems. Therefore, this study is an attempt to find out the effect of COVID-19 pandemic on the supply chain management of the RMG sector, consequence of this pandemic, steps taken by the garments owners and BGMEA, major problems the sector is facing, and solution of those problems. The research tool was questionnaire and interview scheduled for management and owners. Data was collected randomly from different levels of managements. The study divulged that garments owner are not happy with the changing attitude of international buyers. The BGMEA has been monitoring the situation from the beginning of the pandemic and now they are thinking of alternate option for raw materials and to create new business relationship. Concluding remarks, at the beginning, the industry was build based on wage competitiveness but now we have to be very strong with other components in order to survive. Wage competitiveness, compliance, lead time and supply chain these four are the pillar to be successful in this industry and now it is time to give equal importance on all of these.

Source: https://ajbe.aiub.edu/index.php/ajbe/article/view/103

Contextual design guidelines of a Sensory Garden for Children with Autism Spectrum Disorder (ASD) in Bangladesh

Author: TABASSUM ZARIN et al.

Bangladesh's number of children with autism spectrum disorder (ASD) rises daily. Evidence shows that issues in sensory integration have a significant impact on the behavior of a child with ASD. Due to sensory integration, children with ASD face difficulties detecting, comprehending, and organizing sensory information from the body and surrounding environment, resulting in hyper and hypo-sensitive reactions. This paper aims to generate guidelines for designing a sensory garden to help sensory integration for children with ASD in Bangladesh to lessen their struggles. First, the authors reviewed the literature on children's behavior with ASD, their problems, and how a sensory garden can help them reduce their problems. Then, they conducted informal interviews with two therapists who work with autistic children daily and 12 caregivers from four organizations to gain insight into the most significant physical impediments children with ASD face in Bangladesh. These interviews helped to generate a checklist for evaluating case studies. Then, two case studies are done on foreign sensory gardens to understand the landscape architects' considerations in creating a multisensory garden. Finally, the authors provide recommendations for designing a sensory garden for children with ASD using qualitative analysis to meet their unique needs and improve their daily lives.

Source: https://seu.edu.bd/seuja/downloads/vol_02_issue_01_Jun_2022/SEUJA-Vol02Issue01-1.pdf

Political Fake News Detection from Different News Source on Social Media using Machine Learning Techniques.

Author: MEHEDI HASAN et al.

People are more dependable on online news systems than ever in this modern time and day. The more people depend on online news, magazines, and journals, the more likely it will have more significant consequences of fake news or rumors. In the era of social networking, it has become a significant problem that negatively influences society. The fact is that the internet has become more accessible than ever, and its uses have increased exponentially. From 2005 to 2020, overall web users have increased from 1.1 billion to 3.96 billion [16]. As most individuals' primary sources are microblogging networks, fake news spreads faster than ever. Thus it has become very complicated to detect fake news over the internet. For that purpose, we have used four traditional machine learning (ML) algorithms and long short-term memory (LSTM) methods. The four traditional methods are as follows logistic regression (LR), decision tree (DT) classification, k-nearest neighbors (KNN) classification, and naive bayes (NB) classification. To conduct this experiment, we first implemented four traditional machine learning methods. Then we trained our dataset with LSTM and Bi-LSTM (bidirectional long-short term memory) to get the best-optimized result. This paper experimented with four traditional methods and two deep learning models to find the best models for detecting fake news. In our research, we can see that, from four traditional methods, logistic regression performs best and generate 96% accuracy, and the Bi-LSTM model can generate 99% accuracy, which outbreaks all previous scores.

Source: https://ajse.aiub.edu/index.php/ajse/article/view/383

A Review on Potential Electrochemical Point-of-Care Tests Targeting Pandemic Infectious Disease Detection: Covid-19 as a Reference

Author: DR. MOHAMMAD MAHBUB RABBANI et al.

Brief Description:

Fast and accurate point-of-care testing (POCT) of infectious diseases is crucial for diminishing the pandemic miseries. To fight the pandemic coronavirus disease 2019 (COVID-19), numerous interesting electrochemical point-of-care (POC) tests have been evolved to rapidly identify the causal organism SARS-CoV-2 virus, its nucleic acid and antigens, and antibodies of the patients. Many of those electrochemical biosensors are impressive in terms of miniaturization, mass production, ease of use, and speed of test, and they could be recommended for future applications in pandemic-like circumstances. On the other hand, self-diagnosis, sensitivity, specificity, surface chemistry, electrochemical components, device configuration, portability, small analyzers, and other features of the tests can yet be improved. Therefore, this report reviews the developmental trend of electrochemical POC tests (i.e., test platforms and features) reported for the rapid diagnosis of COVID-19 and correlates any significant advancements with relevant references. POCTs incorporating microfluidic/plastic chips, paper devices, nanomaterial-aided platforms, smartphone integration, self-diagnosis, and epidemiological reporting attributes are also surfed to help with future pandemic preparedness. This review especially screens the low-cost and easily affordable setups so that management of pandemic disease becomes faster and easier. Overall, the review is a wide-ranging package for finding appropriate strategies of electrochemical POCT targeting pandemic infectious disease detection.

Source: https://www.mdpi.com/2227-9040/10/7/269

The obstacles to combat against COVID-19 pandemic and the remedies: Bangladesh scenario

Author: MD. MORTUZA AHMMED et al.

Brief Description:

Bangladesh has been going through the austerity of the unique COVID-19 for more than a year like several other nations in the world in spite of concerted efforts taken by the government along with other concerned authorities who have advocated compulsory guidelines involving social distancing procedures accompanied by lockdown to have control over the pandemic. In this paper, the barriers faced by the government to protect people from the COVID-19 pandemic have been investigated. Also, the number of daily infected people against the number of daily tests has been underlined to comprehend the overall pandemic picture in Bangladesh.

https://pubmed.ncbi.nlm.nih.gov/36061516/

The mathematical and machine learning models to forecast the COVID-19 outbreaks in Bangladesh

Author: MD. MORTUZA AHMMED et al.

Brief Description:

The COVID-19 virus mutates in many different variants after its outbreak. Although several vaccines have been developed by many countries and implemented worldwide, it is difficult to prevent the outbreaks due to the pops out of different variants from its regular mutations. This study is an attempt to develop models which could precisely forecast the COVID-19 outbreaks in Bangladesh. In this study, we have developed a SEIRD based machine learning model to forecast the next possible one year outbreaks scenario in this country. We have tested the accuracy of this model by fitting the results with the considered historical data from March 08, 2020 to October 14, 2021. Also, we have validated this model by predicting the future inside the existing dataset, which is almost similar to the real dataset. It is observed that the final future forecasting results are very realistic compared to the current outbreak situation. Additionally, we have shown that the classical SEIRD model cannot predict the COVID-19 future outbreaks even it does not fit with the real datasets of outbreaks. Moreover, another machine learning time series forecasting model, FBProphet, has been implemented to forecast the future outbreaks of Bangladesh. Finally, we have analyzed and compared the forecasting results and hence identify the limitations of the proposed models which can improve future research in this field.

Source: https://www.tandfonline.com/doi/abs/10.1080/09720502.2021.2015095

Public healthcare facilities and its utilization: Bangladesh perspective

Author: MD. MORTUZA AHMMED et al.

Brief Description:

Considerable segment of the populace in Bangladesh is disinherited of a major human right: access to high-quality healthcare facilities. Bereft of an appropriate healthcare structure would lead to acute effects in numerous other segments of the nation. The goal of this study is to assess the whole scenario of the public healthcare facilities in Bangladesh. Furthermore, selected aspects regarding utilization of these facilities involving outpatient departments (OPD) visits, bed turnover rate (BTOR), bed occupancy ratio (BOR), hospitalization and death, and childbirth practices have also been evaluated. All the pertinent data required for the analysis of the study were hoarded from the Health Bulletin issued by the Director General of Health Services (DGHS) in 2016. The outcomes of the study reveal that majority of the OPD visits (89%) took place in the primary level healthcare facilities whereas the secondary level hospitals had the highest BTOR. Hospitalization of patients was the highest in Dhaka division (23%) and lowest in Barisal division (6%). Most of the deaths of admitted patients (69%) were registered at the tertiary level hospitals while UHC were liable for most of the childbirths (90%). The analytical findings of the study will facilitate the respective agencies to formulate proper evaluations concerning the abovementioned characteristics of public healthcare facilities in Bangladesh and implement efficient resolutions as well.

Source: https://ijcimr.org/articles/IJCIMR-V1-1012.pdf

Determinants of knowledge and precautionary practices about nosocomial infection among fourth graded hospital workers in Bangladesh: A mathematical and statistical approach

Author: MD. MORTUZA AHMMED et al.

Brief Description:

The goal of this study was to evaluate the determinants associated with knowledge level and precautionary practices concerning nosocomial infection among the fourth graded hospital workers in Bangladesh. A cross-sectional study based on 343 respondents selected through a convenience sampling method from two hospitals in the Dhaka city was carried out to meet the objective of the study. The outcomes of the chi-square test of association showed that education, types of organization, years of experience and participation in workshop or training on the infection control program had a highly significant association (p-value=0.000) with knowledge level while education, types of organization, and participation in workshop or training on the infection control program had a highly significant association (p-value=0.000) with practice level. Besides, employment status had a significant association (p-value=0.033) with practice level as well. Almost analogous outcomes were observed in the binary logistic regression results for knowledge level and multinomial logistic regression results for practice level. The findings of the study also highlight that the fourth graded hospital workers in private hospitals had higher knowledge and performed better precautionary practices than their public hospital counterparts. This translates into the conclusion of paying more attention to the public hospital workers by giving them the opportunity of making themselves trained by engaging them with several workshops or training related to “Hospital Acquired Infection Control”.

Source: https://www.tandfonline.com/doi/abs/10.1080/09720502.2022.2133230

The FBProphet forecasting model to evaluate the spread of COVID-19 pandemic: A machine learning approach

Author: MD. MORTUZA AHMMED et al.

Brief Description:

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Source: https://www.tandfonline.com/doi/abs/10.1080/09720502.2022.2133234

Strategies for Enhancing the Multi-Stage Classification Performances of HER2 Breast Cancer from Hematoxylin and Eosin Images

Author: DR. AKINUL ISLAM JONY et al.

Brief Description:

Breast cancer is a significant health concern among women. Prompt diagnosis can diminish the mortality rate and direct patients to take steps for cancer treatment. Recently, deep learning has been employed to diagnose breast cancer in the context of digital pathology. To help in this area, a transfer learning-based model called 'HE-HER2Net' has been proposed to diagnose multiple stages of HER2 breast cancer (HER2-0, HER2-1+, HER2-2+, HER2-3+) on H&E (hematoxylin & eosin) images from the BCI dataset. HE-HER2Net is the modified version of the Xception model, which is additionally comprised of global average pooling, several batch normalization layers, dropout layers, and dense layers with a swish activation function. This proposed model exceeds all existing models in terms of accuracy (0.87), precision (0.88), recall (0.86), and AUC score (0.98) immensely. In addition, our proposed model has been explained through a class-discriminative localization technique using Grad-CAM to build trust and to make the model more transparent. Finally, nuclei segmentation has been performed through the StarDist method.

Source: https://pubmed.ncbi.nlm.nih.gov/36428885/

A Comprehensive Survey on the Detection, Classification, and Challenges of Neurological Disorders

Author: DR. MUHAMMAD FIROZ MRIDHA et al.

Brief Description:

Neurological disorders (NDs) are becoming more common, posing a concern to pregnant women, parents, healthy infants, and children. Neurological disorders arise in a wide variety of forms, each with its own set of origins, complications, and results. In recent years, the intricacy of brain functionalities has received a better understanding due to neuroimaging modalities, such as magnetic resonance imaging (MRI), magnetoencephalography (MEG), and positron emission tomography (PET), etc. With high-performance computational tools and various machine learning (ML) and deep learning (DL) methods, these modalities have discovered exciting possibilities for identifying and diagnosing neurological disorders. This study follows a computer-aided diagnosis methodology, leading to an overview of pre-processing and feature extraction techniques. The performance of existing ML and DL approaches for detecting NDs is critically reviewed and compared in this article. A comprehensive portion of this study also shows various modalities and disease-specified datasets that detect and records images, signals, and speeches, etc. Limited related works are also summarized on NDs, as this domain has significantly fewer works focused on disease and detection criteria. Some of the standard evaluation metrics are also presented in this study for better result analysis and comparison. This research has also been outlined in a consistent workflow. At the conclusion, a mandatory discussion section has been included to elaborate on open research challenges and directions for future work in this emerging field.

Source: https://www.mdpi.com/2079-7737/11/3/469

3D Gesture Recognition and Adaptation for Human–Robot Interaction

Author: DR. MUHAMMAD FIROZ MRIDHA et al.

Brief Description:

Gesture-based human-robot interaction has been an important area of research in recent years. The primary aspect for the researchers has always been to create a gesture detection system that is insensitive to lighting and backdrop surroundings. This research proposes a 3D gesture recognition and adaption system based on Kinect for human-robot interaction. The framework comprises the following four modules: pointing gesture recognition, 3D dynamic gesture recognition, gesture adaptation, and robot navigation. The proposed dynamic gesture recognition module employs three distinct classifiers: HMM, Multiclass SVM, and CNN. The adaptation module can adapt to new and unrecognized gestures applying semi-supervised self-adaptation or user consent-based adaptation. A graphical user interface (GUI) is built for training and testing the proposed system on the fly. A simple simulator along with two different robot-navigation algorithms are developed to test robot navigation based on the recognized gestures. The framework is trained and tested through a five-fold cross-validation method with a total of 3,600 gesture instances of ten predefined gestures performed by 24 persons (three age categories: Young, Middle-aged, Adult; each with 1,200 gestures). The proposed system achieves a maximum accuracy score of 95.67% with HMM for the Middle-aged category, 92.59% with SVM for the Middle-aged category, and 89.58% with CNN for the Young category in dynamic gesture recognition. Considering all the three age categories, the system achieves average accuracies of 94.61%, 91.95%, and 88.97% in recognizing dynamic gestures with HMM, SVM, and CNN respectively. Moreover, the system recognizes pointing gestures in real-time.

Source: https://ieeexplore.ieee.org/document/9933761

Strategies for Enhancing the Multi-Stage Classification Performances of HER2 Breast Cancer from Hematoxylin and Eosin Images

Author: DR. MUHAMMAD FIROZ MRIDHA et al.

Brief Description:

Breast cancer is a significant health concern among women. Prompt diagnosis can diminish the mortality rate and direct patients to take steps for cancer treatment. Recently, deep learning has been employed to diagnose breast cancer in the context of digital pathology. To help in this area, a transfer learning-based model called ‘HE-HER2Net’ has been proposed to diagnose multiple stages of HER2 breast cancer (HER2-0, HER2-1+, HER2-2+, HER2-3+) on H&E (hematoxylin & eosin) images from the BCI dataset. HE-HER2Net is the modified version of the Xception model, which is additionally comprised of global average pooling, several batch normalization layers, dropout layers, and dense layers with a swish activation function. This proposed model exceeds all existing models in terms of accuracy (0.87), precision (0.88), recall (0.86), and AUC score (0.98) immensely. In addition, our proposed model has been explained through a class-discriminative localization technique using Grad-CAM to build trust and to make the model more transparent. Finally, nuclei segmentation has been performed through the StarDist method.

Source: https://www.mdpi.com/2075-4418/12/11/2825

A Modern Review of the Non-Invasive Continuous Blood Glucose Measuring Devices and Techniques for Remote Patient Monitoring System

Author: DR. MUHIBUL HAQUE BHUYAN et al.

Brief Description:

Diabetes disease that arises from the higher glucose level due to insulin shortage or insulin opposition in the human body has become a common disease in the world. No medicine can cure it completely. However, by taking medicine, maintaining diets, and having exercises regularly, a diabetes patient can keep his glucose level within the specified limits and in this way, he/she can lead a normal life like a healthy person. But to control glucose levels, a patient needs to monitor them regularly. Various techniques are being used over the last four decades. This modern review article aims to provide a comparative study report on various blood glucose monitoring techniques in a very concise and organized manner. The review mainly emphasizes working principles, cost, technology, sensors, measurement types, measurement accuracy, advantages, and disadvantages, etc. of various techniques and then compares among each other. Besides, the use of algorithms and simulators for the growth of this technology is also presented. Finally, current research trends of this measurement technology have also been discussed.

Source: https://publications.waset.org/10012400/pdf

Design and Simulation of a PLC and IoT-based Railway Level Crossing Gate Control and Track Monitoring System using LOGO

Author: DR. MUHIBUL HAQUE BHUYAN et al.

Brief Description:

In the current research report, designing and simulation of a Programmable Logic Controller (PLC) and an Internet of Things (IoT)-based railway level crossing controlling and track monitoring system has been presented. As such, we need an automated system. In this paper, the main concern is to design a PLC and an IoT-based automatic interlocking system to protect trains from accidents or clashes and ensure the safety and security of the passengers. We have designed a model using LOGO software with the PLC as the main heart of the control system. The ladder logic program for PLC was developed using LOGO software on a personal computer and then downloaded into the PLC. For communication between the PLC and computer, an RS485 serial port was used. To detect the presence of a train on the track, ultrasonic and radio frequency (RF) transducers and infra-red (IR) sensors were used as both the transmitters and receivers. The system was simulated using LOGO software. In the system, we have incorporated Internet of Things (IoT) and Visual Basic programming software to connect it with the mobile Apps and create Graphic User Interface (GUI) respectively. In the future, we will implement it on large scale using hardware and will build a central database system through which monitoring can be done smoothly.

Source: https://iosrjournals.org/iosr-jeee/Papers/Vol17-Issue2/Ser-2/C1702021323.pdf

Assessment of the 50% and 95% effective paratracheal forces for occluding the esophagus in anesthetized patients

Author: DR. SHUVRA MONDAL et al.

This study aimed to evaluate the 50% and 95% effective paratracheal forces for occluding the esophagus in anesthetized patients. In 46 anesthetized patients, the upper esophagus was examined using ultrasonography, and the lower paratracheal area over the esophagus just above the clavicle was marked. Manual paratracheal force was applied over that area using a novel pressure sensing device set-up. In the first patient, a 20 N paratracheal force was applied, and the patency of the esophagus was assessed by advancing the esophageal stethoscope. Unsuccessful advancement of the esophageal stethoscope was considered an effective paratracheal force. If advancement of the esophageal stethoscope was successful, the paratracheal force was increased by 2 N for the next patient, and if it was unsuccessful, the force was decreased by 2 N for the next patient. These sequential tests were performed using 12- and 18-Fr esophageal stethoscopes, respectively. According to Dixon and Mood method, the 50% effective paratracheal force (confidence interval) was 18.4 (17.5–19.3) N with the use of a 12-Fr esophageal stethoscope and 12.8 (11.0–14.6) N with the use of an 18-Fr esophageal stethoscope. Using probit regression analysis, the 50% and 95% effective paratracheal forces were 18.4 (16.8–19.6) N and 20.6 (19.4–27.9) N, respectively, with the use of a 12-Fr esophageal stethoscope, and 12.4 (8.3–14.4) N and 16.9 (14.7–37.3) N, respectively, with the use of an 18-Fr esophageal stethoscope. Our findings suggest a guide for applying paratracheal force during rapid sequence induction and tracheal intubation.

Source: https://pubmed.ncbi.nlm.nih.gov/33496940/

Keep me in Distance: An Internet of Things based Social Distance Monitoring System in Covid19

Author: SYED NAFIUL SHEFAT et al.

Brief Description:

Despite, the fact, the observable benefits of the Internet of things (IoT) have been expanded to healthcare for automation, very few studies have been shed light on the wearable IoT to keep distance from human to human. In the Covid-19 situation, in general, it is advisable to keep a social distance to avoid the possibility of infection. Research from Wearable IoT sensor-based healthcare, IoT provides a pathway how citizens can keep them ata distance as IoT offers a myriad of sensors. Realizing the practical problem, in this research a social distance model is developed using wearable IoT. This proposed technique is easily implementable on wearable devices. Our proposed system is cost-effective, which is expected very suitable for the low-income regions of the world to monitor appropriate social distance.

Source: https://www.researchgate.net/profile/Md-Ahad-4/publication/360458061_Keep_me_in_Distance_An_Internet_of_Things_based_Social_Distance_Monitoring_System_in_Covid19/links/627810ab107cae291994d684/Keep-me-in-Distance-An-Internet-of-Things-based-Social-Distance-Monitoring-System-in-Covid19.pdf

Performance Evaluation of Data Mining Classification Algorithms for Predicting Breast Cancer

Author: SYED NAFIUL SHEFAT et al.

The most prevalent cause of death among women is breast cancer. At an early stage, predicting breast cancer enhances the probability of a successful cure. It requires a breast cancer prediction technology capable of classifying a breast tumor as dangerous malignant or harmless benign. This is especially true in the medical field, where classification methods are often used for finding and investigation to make decisions for the disease. This study examines the performance of six classification algorithms of data mining which are Logistic Regression classifier, Naïve Bayes classifier, Decision Tree, Random Forest Classifier, Support Vector Machine, and K-Nearest Neighbors on the Wisconsin Breast Cancer (original) dataset. The principal purpose is to measure the performance of each algorithm in terms of their accuracy, precision, sensitivity, and specificity. The findings indicate that the accuracy of Support Vector Machine has the greatest rate (97.20 %) and the lowest error rate when determining if a woman has a malignant or benign tumor.

Source: http://www.mjsat.com.my/index.php/mjsat/article/view/55

Water criteria evaluation for drinking and irrigation purposes: a case study in one of the largest rivers of Sundarbans World Heritage region

Author: MAHAMUDUL HASSAN et al.

Brief Description:

Pasur river is one of the largest rivers in the World Heritage Sundarbans mangrove forest region of the southwestern part of Bangladesh. Due to lack of alternative sources, more than 1 million inhabitants living in the Pasur river basin area rely heavily on the river water for domestic, irrigation, and industrial purposes without proper and reliable information on the water qualities and contamination types. The study aimed at evaluating the suitability and sustainability for irrigation and consumption practices, and suitable hydrogeochemical techniques and quality of Pasur river water of Sundarbon region of Bangladesh were investigated. Water samples were collected from six locations during pre-monsoon and post-monsoon seasons and assessed for suitability for drinking and irrigation application. The water quality index (WQI) was calculated to evaluate the suitability for drinking. WQI indicates that the river water samples during both the seasons are safe for drinking in the good category. Sodium percentage (Na%), sodium adsorption ratio (SAR), magnesium hazard (MH), residual sodium carbonate (RSC) were investigated to assess the feasibility for agricultural applications. Most of the indices, such as SAR, Na%, and RSC results recommend that the river water is safe for irrigation. A suggestion is made that MH in river water should be controlled for the use of water in irrigation. United States Salinity Laboratory (USSL) diagram and Wilcox diagram analysis also identified that river water as a usable category for irrigation purposes is feasible during both seasons.

Source: https://iwaponline.com/ws/article/22/6/5800/88707/Water-criteria-evaluation-for-drinking-and

An Improved User Anonymous Secure Authentication Protocol for Healthcare System Using Wireless Medical Sensor Network

Author: DR. MUHAMMAD FIROZ MRIDHA et al.

Brief Description:

Wireless Medical Sensor Network (WMSN) consists of bio-sensors connected with each other implanted within human body. It transmits data to remote medical center. Medical professional can access the sensors of human body for inquiring his health condition remotely. Transmitting patient data over insecure wireless channel is a big challenge because health data is very sensitive and must not be disclosed to unauthorized user, so ensuring secure authentication and preserving anonymity is very important. To address this issue, many researchers provided many protocols for WMSN. Amin et al. presented an anonymous patient monitoring system using WMSN. Amin et al. claimed that their protocol preserves mutual authentication, user anonymity and secure against stolen smart device attack etc. By studying thoroughly and in-depth analysis we have found that this protocol is vulnerable to privileged insider attack, stolen smart device attack. Besides, it does not protect user anonymity. Also, it fails to protect denial of service attack. Furthermore, it has flaw in password change phase. To overcome the weakness of the protocol, we have proposed an improved and mask identity based secure mutual authentication protocol using WMSN. An informal security analysis is done which shows our protocol is secure against different type of attacks. Furthermore, we have used BAN logic model to prove the correctness of mutual authentication feature of the proposed protocol. Moreover, it offers ease login, secure authentication and strong password change phases.

Source: https://journal.uob.edu.bh/handle/123456789/4008

Identifying Lung Cancer Using CT Scan Images Based On Artificial Intelligence

Author: METHILA FARZANA WOISHE et al.

Brief Description:

Lung cancer is among the leading cause of death among men and women. Early detection of lung cancers can increase the possibility of survival amongst patients. The preferred 5-years survival rate for lung most cancers sufferers will increase from 16% to 50% if the disease is detected on time. Computerized tomography (CT) is frequently used for diagnosis and is more efficient than X-ray. However, the images need to be reviewed by a qualified physician who specializes in interpreting the CT scan. This may lead to misinterpretation and conflicting reports among physicians. Therefore, a lung cancer detection system that uses image processing methods to categorize lung cancer in CT images will be more consistent and precise. This paper presents a lung cancer detection system using the Artificial Intelligence (AI) method. The study uses Median, Gaussian, and Watershed segments to reduce noisy and shredded CT images. Then, the Weight Optimization Neural Network method was used to improve accuracy and reduce the computational time. The results were compared with previous works and shows higher accuracy and shorter computational time.

Source: https://mjsat.com.my/index.php/mjsat/article/view/34

An Efficient IoT Enabled Smart Ambulance Routing Appling LOADng Routing Protocol: Aiming to Achieve Sustainable Development Goals

Author: METHILA FARZANA WOISHE et al.

Brief Description:

Despite, the fact, Internet of Things (IoT) has been applied in traffic detection and vehicle safety very few research shed light on how IoT-based smart transportation can achieve SDGs goals. Moreover, IoT inherits limitations from the power of the devices in the IoT infrastructure. Such limitations demand the need to have optimization research.To fill this gap,firstly this research applied LOADng-IoT protocol for the ambulance route system and secondly discussed how the system can be aimed to achieve SDGs goals. This research is significant, as traffic jam has become the main challenge in current metropolitan cities. Both in developed and developing nations, it is a concern for an ambulance to carry an emergency patient. Despite the fact, ambulance receives special traffic protocols, it is still challenging that the ambulance reaches the hospital on time. Lastly, the system is discussed under the lanes of the SDGs goals and pinpoints to the SDGs targets that can be achievable by this study.

Source: https://turcomat.org/index.php/turkbilmat/article/view/12168

Plant Leaf Disease Detection Using Image Processing: A Comprehensive Review

Author: TANVIR AHMED et al.

Brief Description:

In this review paper, previous and current works for plant leaf disease detection have been studied. The traditional manual visual quality inspection cannot be defined systematically as this method is unpredictable and inconsistent. Moreover, it involves a remarkable amount of expertise in the field of plant disease diagnostics (phytopathology) in addition to the disproportionate processing times. Hence, image processing has been applied for the recognition of plant diseases. This paper has been divided into three main parts. In the first part, a comprehensive review based on algorithms is provided were the major algorithms and works conducted using image processing and artificial intelligence algorithms have been compared. The second part discusses the frameworks and compared the previous works. Then, a comprehensive discussion based on the accuracy of the results was provided. Based on the review conducted, a detailed explanation of the illnesses detection and classification performance is provided. Finally, the findings and challenges in plant leaf detection using image processing are summarized and discussed.

Source: https://mjsat.com.my/index.php/mjsat/article/view/80

Development of a low-cost textile sensor based insole to monitor foot pressure of diabetic patients

Author: DR. MD. HASAN IMAM et al.

Brief Description:

A common but preventable complication of diabetes is diabetic foot ulcer. If appropriate care is not provided such foot lesions progress to the most severe diabetic foot complication, like infection, gangrene, amputation and even death. Diabetic neuropathy results abnormal planter pressure points under the foot and triggers the tendency of foot ulcer. The aim of this paper is to present the development of a low cost, power efficient, soft, lightweight and simple in-shoe planter pressure measurement system. The system is capable to determine the average static pressure under ball and heel of the foot. The insole is comfortable due to the use of textile pressure sensor and its simple data acquisition method makes operation easy for the users. An experiment with 10 participants with and without diabetes was carried out to observe the outcome of the system. The practical implication of this study is to minimise the damage caused by foot ulcer by determining the pressure abnormality at earliest with a fully developed cost effective design. The system is capable to identify the difference in average planter pressure values in different groups of participants. To monitor the foot health proactively, the proposed system is found to be a useful device and can successfully scan the planter pressure under ball and heel of the foot.

Source: https://pubmed.ncbi.nlm.nih.gov/35212583/

A Review On The Design And Implementation Of A Robotic Arm For Collecting Covid-19 Samples

Author: NAFIZ AHMED CHISTY et al.

Brief Description:

The Covid-19 virus first infected humans around the end of 2019, and since then, people worldwide have witnessed the infection's terrible history. Many scientific treatments have been explored to stop the COVID-19 virus from spreading. However, if they are in close proximity to the victim, their chances of getting the virus increase. Therefore, a robotic arm may be designed and implemented for the safety of medical staff during Covid sampling. The robotic arm can grip the swap and obtain a sample from the suspect's mouth. This will allow sampling without contacting the suspect, preventing virus transmission. This paper explores the history of the robotic arm and reviews over 50 important scientific papers on the distinguishing characteristics of a robotic arm.

Source: https://engineeringjournals.stmjournals.in/index.php/JoITI/issue/view/1092

BMNet-5: A Novel Approach of Neural Network to Classify the Genre of Bengali Music Based on Audio Features

Author: DR. MUHAMMAD FIROZ MRIDHA et al.

Brief Description:

Music genre classification (MGC) is the process of putting genre labels on music by analyzing the sounds or words. With the rapid growth of music data repositories, MGC can be used in a lot of ways to organize and manage music recommendation systems, advertising, and streaming services. But there have been a lot of works on classifying English music using different statistical and machine learning methods, but there hasn't been much progress in classifying Bengali music. Also, Deep Learning (DL) methods have been used in a few important ways to classify different types of music. The content and uniqueness of Bengali music make it much more interesting. Also, there is still a lot to learn about how to use the DL approach in Bengali music. So, Bengali music genre classification is a pretty new area of research in the field of Deep Learning. In this paper, we developed a unique technique called BMNet-5 to perform a multiclass classification of Bangla music genres such as "Bangla Adhunik," "Bangla Hip-Hop," "Bangla Band Music," "Nazrulgeeti," "Palligeeti," and "Rabindra Sangeet." We show the effectiveness of the suggested technique by extracting features from a dataset of 1742 Bangla music pieces and evaluating the automated classification judgments. The proposed BMNet-5 is based on a neural network designed to predict music genre from audio inputs. Our suggested model outperformed the corresponding previous research with an accuracy of 90.32%. The BMNet-5 model is then tested for performance consistency using K-fold cross validation with varying k values. Finally, we use the suggested model to train the interpretable SHAP model for all the genre of the Bangla music dataset, and the development of an explainable outcome may have a significant advantage.

Source: https://ieeexplore.ieee.org/document/9916245

Performance Evaluation of Data Mining Classification Algorithms for Predicting Breast Cancer

Author: NYME AHMED et al.

Brief Description:

The most prevalent cause of death among women is breast cancer. At an early stage, predicting breast cancer enhances the probability of a successful cure. It requires a breast cancer prediction technology capable of classifying a breast tumor as dangerous malignant or harmless benign. This is especially true in the medical field, where classification methods are often used for finding and investigation to make decisions for the disease. This study examines the performance of six classification algorithms of data mining which are Logistic Regression classifier, Naïve Bayes classifier, Decision Tree, Random Forest Classifier, Support Vector Machine, and K-Nearest Neighbors on the Wisconsin Breast Cancer (original) dataset. The principal purpose is to measure the performance of each algorithm in terms of their accuracy, precision, sensitivity, and specificity. The findings indicate that the accuracy of Support Vector Machine has the greatest rate (97.20 %) and the lowest error rate when determining if a woman has a malignant or benign tumor.

Source: https://mjsat.com.my/index.php/mjsat/article/view/55

Assessing the Connectivity of Community Parks and Fields toUnderstand the Propensity of Use by the Neighborhood: A Case atUttara Residential Area, Dhaka

Author: IRFAT ALAM et al.

Brief Description:

Uttara, a planned residential area in the northern part of Dhaka city center is the home to thousands of inhabitants in different sectors having fields, parks, and waterfront as public open spaces. This study tried to find out the connectivity of Community parks and fields with their surrounding neighborhood and assess its propensity of use by nearby community through space syntax analysis and questionnaire survey of park and field users of the Uttara residential area. The outcome helps to understand the relationship between accessibility and the propensity of use, within and beyond its surrounding neighborhood.

Source: https://seu.edu.bd/seuja/downloads/vol_02_issue_01_Jun_2022/SEUJA-Vol02Issue01-2.pdf

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

Smart Health Technologies for the COVID-19 Pandemic; Chapter: Internet of Things (IoT) and blockchain-based solutions to confront COVID-19 pandemic

Author: CHOWDHURY AKRAM HOSSAIN et al.

Brief Description:

COVID-19 pandemic, an unprecedented event that has severely affected every aspect of human civilization. From the beginning of the pandemic, the contagious nature of this virus resulted in its rapid transmission throughout the world. As a result, worldwide health organizations and governments are facing tremendous pressure to deal with the affected populations. In this demanding period, the applications of the latest technologies to prevent the spread of the virus are critical. Among various technologies, the Internet of Things (IoT) and blockchain are being used in several solutions starting from contact tracing to forecasting. The use of IoT technologies has proved to be highly effective in such a state of the pandemic. Conducting real-time health monitoring on patients or suspected cases of COVID-19, tracking medications, detecting any new suspected cases, diagnosing patients from a distance, etc. have become exclusively possible with the use of IoT technologies in this COVID-19 pandemic. On the other hand, the blockchain technology that became popular with the increase of different cryptocurrencies has seen its applications almost everywhere. The technology uses a decentralized system instead of a single point of contact, proving to be more secure than existing solutions. Blockchain-based solutions are also being used during the ongoing pandemic in various aspects for secure contact tracing, data handling, and preventing data fabrication. In this chapter, IoT and blockchain technology are discussed briefly while describing their core elements. Then, the latest solutions were presented based on these technologies in different aspects of COVID-19 pandemic prevention. These solutions mainly focus on using these technologies for remote patient monitoring, secure data handling, and telemedicine. Finally, challenges of using these technologies were discussed, and possible solutions were recommended to improve their efficacy in the future.

Source:
https://www.researchgate.net/publication/361647423_Internet_of_Things_IoT_and_blockchain-based_solutions_to_confront_COVID-19_pandemic

Multiwalled Carbon Nanotube-Based On-Body Patch Antenna for Detecting COVID-19-Affected Lungs

Author: RAJA RASHIDUL HASAN et al.

Brief Description:

A novel rectangular patch antenna based on multiwall carbon nanotubes has been designed and developed for assisting the initial detection of COVID-19-affected lungs. Due to their highly conductive nature, each nanotube echoes electromagnetic waves in a unique manner, influencing the increase in bandwidth. The proposed antenna operates at 6.63, 7.291, 7.29, and 7.22 GHz with a higher bandwidth classified as an ultrawide band and can be used on a human body phantom model because of its flexibility and decreased radiation qualities. Flame retardant 4 is chosen as a substrate with a uniform thickness of 1.62 mm due to its inexpensive cost and excellent electrical properties. The maximum specific absorption rate of the proposed antenna is obtained as 1.77 W/kg for 10 g of tissues. For testing purposes, a model including all the known features of COVID-19-affected lungs is developed. The designed antenna exhibits excellent performance in free space, normal lungs, and affected lung environments. It might be utilized as a first screening device for COVID-19 patients, especially in resource-constrained areas where traditional medical equipment such as X-ray and computerized tomography scans are scarce.

Source: https://pubs.acs.org/doi/10.1021/acsomega.2c02550

Early Prediction of Heart Attack using Machine Learning Algorithms

Author: TOHEDUL ISLAM et al.

Brief Description:

Machine Learning strategy is the foremost important method for analyzing information from totally different areas. The purpose of this proposal is to discover the specific attributes that are responsible for the heart attack to occur. If the attributes are found, it will be easier to detect and start the treatment instantly, thus preventing the heart attack to occur. This will also help the patient from getting into serious medical stage as it would be identified and cured at an initial stage, and thus the patient will get to have a healthy life again. The dataset for this proposition utilized from Researchers which is an open information entry of heart failure clinical record dataset. To improve this, consider the k-means Clustering have been utilized. The research helped to uncover the relationship between heart attack and the attributes causing it. We believe that by this research, the well-being segment will be profited by analyzing the heart

Source: http://icca.aiub.edu/

COVID-19 and SDG 3 in Bangladesh: A Statistical and Machine Learning Approach

Author: MD. MORTUZA AHMMED et al.

Bangladesh is on the verge to confront severe prospective financial hurdle owing to the outcomes initiated by COVID-19. The objective of the study is to assess the status of the third sustainable development goal (SDG 3) in the nation preceding to COVID-19 advent as well as the evident effect of COVID-19 on SDG 3 in future. Information from national sources like IEDCR and BDHS have been employed. Findings show that the maternal mortality rate (MMR) fell by 6.3% while the total fertility rate (TFR) fell by 3.3% between 1993 to 2017. Different categories of early infantile mortality rates also dropped considerably during that period. Sizable progress happened in accompanying demographic factors during that period which led to enhanced level of maternal and child health. Lastly, how COVID-19 could impact maternal and child health through GDP has also been evaluated. Outcomes of the study would facilitate the policymakers to predict and ensure SDG 3 accomplishment accurately and take pertinent steps accordingly. Additional research is suggested to detect the causes for under deployment of optimal level healthcare facilities in the country.

Source: https://www.juit.ac.in/etbs2022/

How Australians Are Coping with the Longest Restrictions: An Exploratory Analysis of Emotion and Sentiment from Tweets.

Author: KAWSER IROM RUSHEE et al.

Brief Description:

Australia is one of the nations having the most extended international border closure and lockdown because of the COVID-19 pandemic. This provides a unique opportunity to explore and understand the emotion and sentiment in the tweets posted by Australians. To utilise this opportunity, tweets from Twitter were collected since the beginning of the pandemic till the 30th of October 2021. Search queries were generated to get COVID-19 and lockdown-related tweets that returned any tweets with the relevant tags. After collecting the tweets, several text pre-processing techniques were applied. Later, sentiment analysis and emotion detection were performed on the pre-processed tweets. Lastly, results were aggregated together and the findings were discussed. Findings from this study suggested that sentiments and emotions fluctuated depending on time and region. The understanding of people's sentiment and emotion towards lockdown presented in this paper may help the policymakers in decision making in future especially with the new variant (Omicron) of COVID-19.

Source: http://voyager.ce.fit.ac.jp/conf/aina/2022/cfp.php

Predicting the Risk of COVID-19 Infection Using Lifestyle Data

Author: DR. ASHRAF UDDIN et al.

Brief Description:

"Prevention is better than cure" is a well-known proverb that is more meaningful for contiguous diseases like COVID-19. During the coronavirus pandemic, people are advised to maintain a regulated and hygienic lifestyle to prevent mass transmission. But there is no effective way to inform them about the level of risk of infection based on their lifestyle to prevent the disease. There are several studies that have proposed the prediction of COVID-19 disease based on symptoms to help cure patients. This study has used a machine learning approach to analyze lifestyle-specific data to help prevent the disease. A public survey was done on lifestyle-related questions that resulted in a dataset consisting of 620 responses. A typical machine learning methodology has been followed that contains steps like data preprocessing, feature engineering, training, evaluation, etc. This study has used three machine-learning algorithms, including Neural Network. Relevancy of hygienic lifestyle habits in case of preventing such diseases has been found. The study has developed a system by evaluating and selecting a machine learning model that can predict if a person is prone to be affected by such a disease. The developed model has shown an accuracy of approximately 95% with an F1-score of 0.942.

Source: https://confmiet.org/

Bridge Crack Detection Using Dense Convolutional Network (DenseNet)

Author: NAZIA ALFAZ et al.

Brief Description:

Due to the increased volume of national, international, and even intercontinental transportations, it has been a critical responsibility for the road and transport authorities to ensure the safety of the transits. Bridges, in particular, require special maintenance because these are typically built in strategic locations, are more vulnerable to natural disasters, and can inflict more damage to life and property if collapsed. In addition to being expensive and time-consuming, manual structure health monitoring (SHM) is also error-prone, but this is still the standard practice in many countries, especially in Bangladesh. This paper presents a deep learning approach to detect cracks in concrete bridge surfaces from images using Dense Convolutional Network (DenseNet) with 99.83% detection accuracy to automate SHM, making it less expensive, efficient, and accurate.

Source: https://dl.acm.org/doi/proceedings/10.1145/3542954

Early Prediction of Heart Attack Using Machine Learning Algorithms

Author: SYEDA NISHAT TASNIM et al.

Brief Description:

Machine Learning strategy is the foremost important method for analyzing information from totally different areas. The purpose of this proposal is to discover the specific attributes that are responsible for the heart attack to occur. If the attributes are found, it will be easier to detect and start the treatment instantly, thus preventing the heart attack to occur. This will also help the patient from getting into serious medical stage as it would be identified and cured at an initial stage, and thus the patient will get to have a healthy life again. The dataset for this proposition utilized from Researchers which is an open information entry of heart failure clinical record dataset. To improve this, consider the k-means Clustering have been utilized. The research helped to uncover the relationship between heart attack and the attributes causing it. We believe that by this research, the well-being segment will be profited by analyzing the heart disappointment at an early stage and preventing from further serious damage.

Source: https://doi.org/10.1145/3542954.3543004

A Real-Time Junk Food Recognition System Based on Machine Learning

Author: SIRAJUM MUNIRA SHIFAT et al.

Brief Description:

As a result of bad eating habits, humanity may be destroyed. People are constantly on the lookout for tasty foods, with junk foods being the most common source. As a consequence, our eating patterns are shifting, and we're gravitating toward junk food more than ever, which is bad for our health and increases our risk of acquiring health problems. Machine learning principles are applied in every aspect of our lives, and one of them is object recognition via image processing. However, because foods vary in nature, this procedure is crucial, and traditional methods like ANN, SVM, KNN, PLS etc., will result in a low accuracy rate. All of these issues were defeated by the Deep Neural Network. In this work, we created a fresh dataset of 10,000 data points from 20 junk food classifications to try to recognize junk foods. All of the data in the data set was gathered using the Google search engine, which is thought to be one-of-a-kind in every way. The goal was achieved using Convolution Neural Network (CNN) technology, which is well-known for image processing. We achieved a 98.05% accuracy rate throughout the research, which was satisfactory. In addition, we conducted a test based on a real-life event, and the outcome was extraordinary. Our goal is to advance this research to the next level, so that it may be applied to a future study. Our ultimate goal is to create a system that would encourage people to avoid eating junk food and to be health-conscious. (ICBBDB: International Conference on Bangabandhu and Digital Bangladesh)

Smart IoT System for Automatic Detection and Protection from Indoor Hazards: An Experimental Study

Author: ABU SHUFIAN et al.

Brief Description:

Electrical short circuits and gas leakages are responsible for most of the fire occurrences. Considering this problem, Internet of Things (IoT)-based smart sensors and relays have been proposed in this paper. Besides, an automated indoor safety mechanism has been introduced which consisted of various sensors, built up with Arduino with the monitoring mechanism of ThingSpeak via IoT. The purpose of this proposed model is to save living creatures and goods from fire incidents. Additionally, a comprehensive device has been built to avert this situation by disconnecting the power source promptly and hence, save lives and property within a short time period. The main feature of this model is – (i) the monitoring device can operate from a remote area, and (ii) it collects real-life data and for the purpose of storage, the collected data would be send to the cloud. However, collected data can be analyzed from various locations using smart devices e.g., smart phones, laptops, computers, and hence, real-time decisions can be taken as well as execute. This experimental study ensures power safety as a result of fire or gas hazards and an IoT-based data monitoring system has been built which would continuously monitor the leakage of flammable gases e.g., Liquefied petroleum gas (LPG), Carbon dioxide (CO_2), Ammonia (NH_3) from the surroundings. The proposed system has been planned for online monitoring of indoor safety measurement, and the parameters can give important as well as helpful information about the atmospheric record and security issues of that place. The application of the developed model has been widely used in various settings, including - (i) residence, (ii) industries, (iii) gas stations, (iv) automobiles, (v) power plants, (vi) research centers, (vii) commercial areas (e.g., shopping malls), and (viii) hospitals.

Simulation of High intensity Focused Ultrasound Device in Healthcare Application for Non-Invasive Heat Induced Tissue Ablation

Author: DR. MOHAMMAD NASIR UDDIN et al.

Brief Description:

Since the last decade, High Intensity Focused Ultrasound (HIFU) has been actively used in medical care for the treatment of various cancers. HIFU is a technique that employs a fixed ultrasonic transducer with a focusing lens, allowing the transmitted signal to reach higher intensity levels within a specific focal zone of relevance. Mechanical and thermal impacts are the main steps of HIFU ablation. In this study, experiments and simulations on tissue ablation with HIFU were carried out to see how multiple tissue ablation worked and how to improve tumor ablation while avoiding damage to surrounding healthy tissue by adjusting the ideal intensity and lens radius of

curvature of the transducer. The analysis employs clinical applications to evaluate the optimum properties of the proposed model. For this experiment, several soft and hard tissues were selected from the human body. Each tissue's temperature was determined to be 310.15-degree Kelvin. At a specified acoustic power and exposure time, the tissues' optimal frequency (1.6 MHz, 2.25 MHz, 3.4 MHz, and 3.5 MHz) and power (10 W, 17 W and 20 W) were identified. By using a focal length of 60 mm, we have completed all of the computations. Numerous cancers, including the brain, heart, skull, liver, kidney and bone, have all shown positive results. This finding looks promising for HIFU tumor ablation surgery

Source: https://dl.acm.org/doi/proceedings/10.1145/3542954

ORGAN DONATION OR ORGAN PROCUREMENT? – A PUBLIC HEALTH PERSPECTIVE

Author: DR. MUHAMMAD WASIFUL ALAM et al.

Brief Description:

The interplay of faith, belief, religion, social norms, rituals and wider cultural attitudes with biomedicine and organ donation is very complex and a major challenge of public's health. Despite the Bangladesh Organ Transplantation Act of 1999 together with religious leaders' fatwa in favor of organ transplantation, there is still lack of organ donation by "deceased or brain-dead patients". This may have impacted on the increasing demand for procuring/purchasing organs from living donor, often forcing poor people to selling vital organs – has created an illegal and unethical market in many countries. The major question remains, not only in Bangladesh but globally, why organ donors and families shy away from performing a noble cause? Is it more than the legislation, hospital resources and experienced doctors or is it the culture, approach, process and trust of our healthcare system? Understanding the process of counseling the families and obtaining consent from brain-dead patients is a vital skill which our healthcare providers may need to learn during their training. The associated factors of strong family ties, experiencing anxiety around permitting separating body parts of dead relatives for organ donation for transplantation, or donating the dead body for medical study and research purposes are critical challenges which needs to be discussed and mitigated. Promoting of transplantation from deceased of brain-dead donors may be one of the Public Health means to preventing from selling their organs and practicing cultural humility, decreasing waiting time and better outcome. Success stories of some countries overcoming these challenges will be shared.

Assessment of Urban Health Clinic from Technological Perspective: A Pilot Study in Dhaka North City Corporation (DNCC)

Author: DR. HUMAYRA FERDOUS et al.

Source: https://aicss.aiub.edu/

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

Author: DR. MUHIBUL HAQUE BHUYAN et al.

Source: https://apmeeieb22.net/5th-ANNUAL-PAPER-MEET-APM

Understanding the deficit level of BME professionals and its impact in the context of Dhaka City, Bangladesh

Author: DR. HUMAYRA FERDOUS et al.

Source: https://wc2022.org/

Integration trauma of the female immigrants depicted in Bangladeshi diasporic literature in England: A case study of Monica Ali's Brick Lane

Author: MD. ASIF KAMAL et al.

Heart Disease Prediction and Analysis Using Ensemble Architecture

Author: DR. MUHAMMAD FIROZ MRIDHA et al.

Ensure Safe Internet for Children and Teenagers Using Deep Learning

Author: DR. MUHAMMAD FIROZ MRIDHA et al.