

MIST – THE TREND SETTER OF ONLINE ACADEMIC ACTIVITIES IN BANGLADESH



MIST Campus

Academic Initiative of MIST amid COVID-19

Traditional and stable education system of Bangladesh has faced an unforeseen paradigm shift due to the global COVID-19 pandemic. But amid the cloud of uncertainties and challenges, Military Institute of Science and Technology (MIST) successfully led from the front in terms of adapting and executing online academic activities in Bangladesh. The Govt. of Bangladesh declared country wide closure of all educational institutes on 18 March 2020 as well as lockdown on 26 March 2020. Without any delay, MIST started online classes from 28 March 2020 to maintain academic momentum. As such, MIST students have not lost a single day from their academic life.

How MIST Made It Possible

MIST has used a number of commercially available platforms such as from Zoom, Microsoft teams, Google classroom, etc to facilitate online classes, meetings and other related activities pertaining to education. In order to avoid any limitation in Zoom online class duration, MIST has

taken the support of BDREN (Bangladesh Research Education Network). MIST has provided all sorts of digital tools such as smart board, Wacom board, etc to conduct online classes smoothly. During initial few weeks online classes were conducted for short period of 20-30 minutes to bring the students onboard and make them habituated. At the same time, teachers have been trained up to make the online classes interactive as well as student friendly. Once both teachers and students became well adopted, class timing has been brought to normal. The laboratory practical classes were started through pre-recorded as well as live videos where teachers and lab assistants carried out the experiments for students who could watch it and get the experimental data for necessary calculations, plotting of graphs, writing up discussions, etc.

Moreover, MIST has become very successful in combating COVID-19 in terms of new normal life. Along with online classes MIST has endeavored significantly to keep the students' moral up, monitor for continuous developments and adherence to seeking knowledge. Regularly, Course Coordinators, Departmental Heads, Faculty Deans, even the Commandant delivered motivation lectures to maintain the mental strength of the students.



Online Classes Using ZOOM

Standing Beside Who Needs

COVID-19 created situations where some of the student's guardians faced financial difficulties. Hence, it was very challenging for many students to pay their tuition and semester fees in time. In such situation, in addition to the regular stipend and scholarship, MIST took initiative to generate another welfare fund for the students. This fund is totally administered by elected students and is dedicated to help needy students to pay tuition fees, buy internet data, etc.

Exams and Assessments

An important facet of education is the examination and assessment. Online exams pose unique challenges but MIST has been vigilant in ensuring quality and transparency in this regard. At the same time MIST decided to grade the students' academic performances, not the auto pass. As such, students were given a number of assignments as part of their continuous assessment system. Most of the assignments were designed to be conceptual and thought provoking making the answers unique for each student. In addition, online class tests and mid-term exams were taken keeping their videos on using Zoom sessions. Adequate invigilators were deployed to ensure the appreciable monitoring management so that the quality of class test or mid-term exam is not compromised in any way.



Online Examination and Assessment

Based on the experience of online class tests and mid-term exams, MIST decided to conduct online semester final exam. Accordingly, the final exam of Fall 2020 semester is being conducted online and Spring 2020 semester final exam is going to be conducted soon. Considering all relevant factors, MIST had to devise special mechanism and methodology to conduct the online semester final exams. Semester final exam of each subject consists of two separate sessions of written exam for two sections and a viva voce. One hour time is given to the students to answer the questions of section A. Next 20 minutes are allocated to submit the answer scripts online and further 10 minutes to take preparation for the exam of section B. Thereafter, students are given one more hour time to complete answering the questions of section B followed by online submission time of 20 minutes.

After the written exam, viva voce is conducted on the same day of written exam because students are in the highest readiness level on the subject. The viva exam has provided a true reflection of the students' preparation and provided the examiners additional assessment options. As a whole, MIST has really set a milestone in conducting the online semester final exam in Bangladesh with noticeable quality and fairness.

Maintenance of Academic Calendar

Normally MIST finishes all academic activities of each year by December. After COVID-19 attack while students of many universities are thinking worriedly about their academic life, students of MIST are preparing to apply for upcoming BCS exam, foreign scholarship and so on. It is because they are going to finish their academic year by February 2021. Insha Allah, MIST will start the next academic session in March 2021.

Graduation Ceremony amid COVID-19

MIST is boldly committed towards graduating ceremony of its final year students without delay amid COVID-19 pandemic situation. Therefore, MIST is going to arrange graduation ceremony

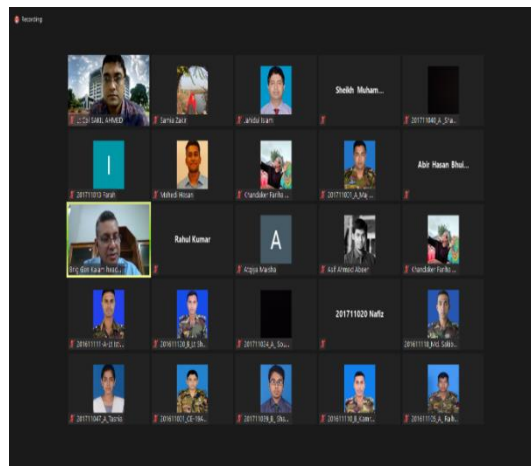
in a mixed mode of online and physical arrangement. Total program will be broadcast shortly keeping the second wave of the pandemic challenges into consideration.

Extra Curricular Activities

COVID-19 limits our social interactions, movements and outdoor activities. To refresh the students' minds in such conditions, MIST has organized various online extra-curricular activities like photo exhibition, design competition, gaming competition, essay competition, inter Department cultural program, webinars, etc.

CE Department hosted an inter-Department online competition which included “Photography Contest, Poster Presentation, Case Competition and Short Film.” CE Department also hosted three webinars on “Evaluation of a Precast Prestress Concrete Bridge through Non-Destructive Evaluation and Load Testing”, “Performance-based Seismic Analysis & Design of Structures”, “Transit Reliability Assessment along a Congested Urban Corridor: A Traffic Microsimulation Modeling Approach”, “A Framework for Involving the Young Generation in Transportation Planning Using Social Media and Crowd Sourcing”, and “Impact of Climate Change on Pavement Performance in Bangladesh”.

The poster for the webinar series is titled "Military Institute of Science and Technology. WEBINAR SERIES ON STRUCTURAL ENGINEERING". It features a dark background with white and orange text. The date and time are listed as "21 October 7:00 PM". The Chief Guest is identified as "Comdr. MIST Maj Gen Md Wahid-Uz-Zaman mdc, mawr, psc, to". The Chair of the Webinar is "Md, Dept of CE, MIST Brig Gen Md Abul Kalam Azad, psc". The main topic is "Evaluation of a Precast Prestressed Concrete Bridge through Non-Destructive Evaluation (NDE) and Load Testing". A sub-topic is "Performance-based Seismic Analysis & Design of Structures". The poster includes a Zoom meeting ID (207 146 6667) and password (6105). It is organized by the Department of Civil Engineering.

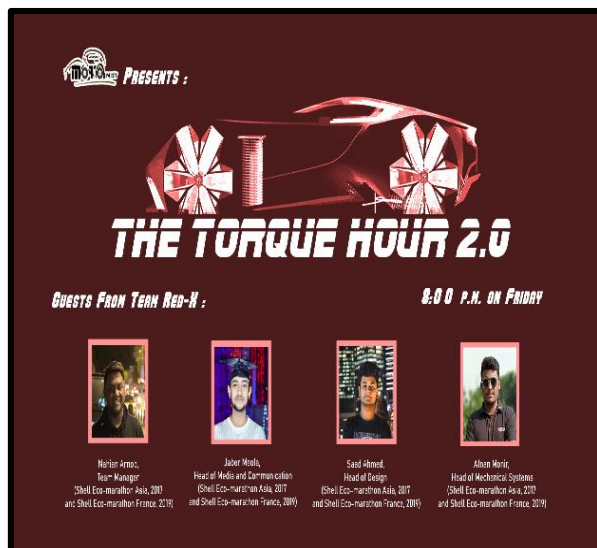


Webinar Series on Structural Engineering by CE Department

EECE Department arranged a workshop on “Ionospheric Prediction and Forecasting”. This Department also supervised an inter university robotics competition called Tri-Robo Cup where MIST teams got prizes in different sections. ME Department organized online work events on “Torque Hour, Hydraulic Systems and Project Management for Industrial Revolution 4.0”.

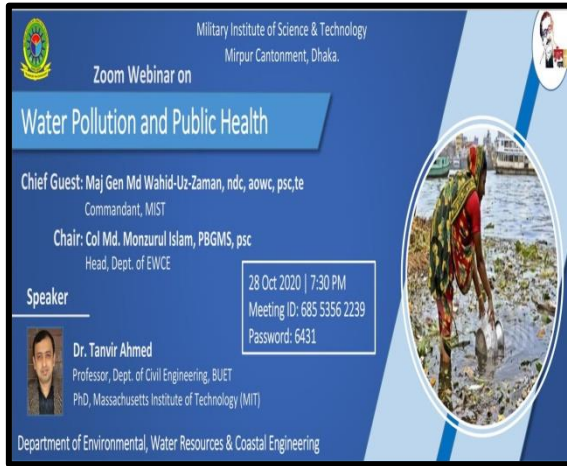


Online Workshop on Ionospheric Prediction and Forecasting by EECE Department

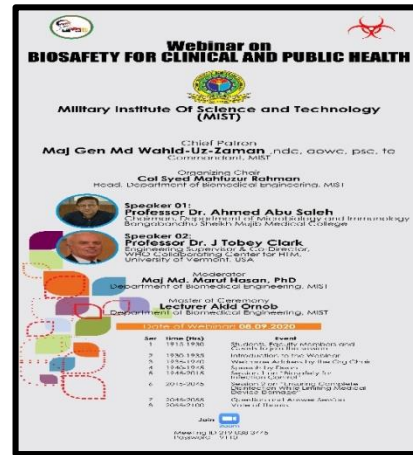


Online Work on Torque Hour by ME Department

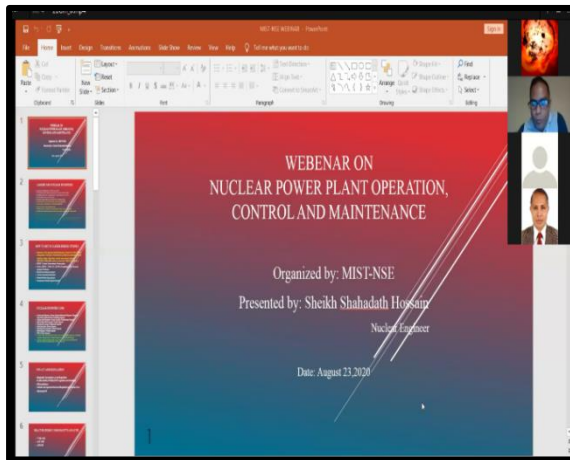
EWCE Department organized a webinar on “Water Pollution and Public Health.” BME Department arranged a webinar on “Biosafety for Clinical and Public Health.” NSE Department hosted a webinar on “Nuclear Reactor Operation and Controls.”



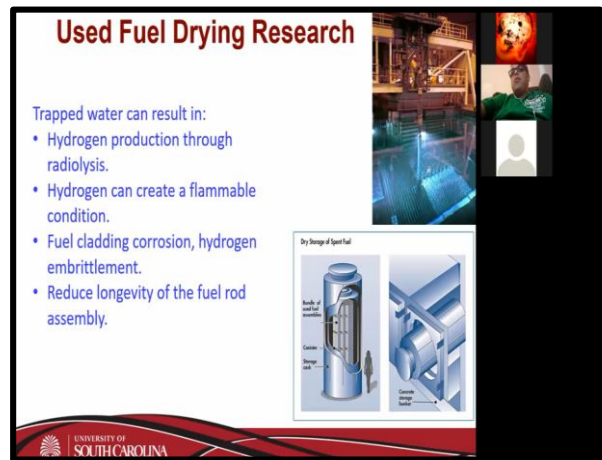
Webinars on Water Pollution and Public Health by EWCE Department



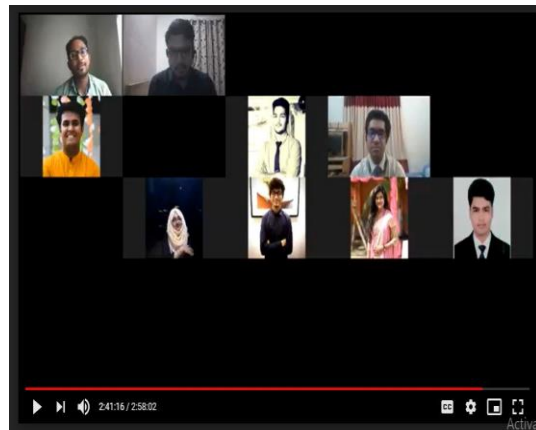
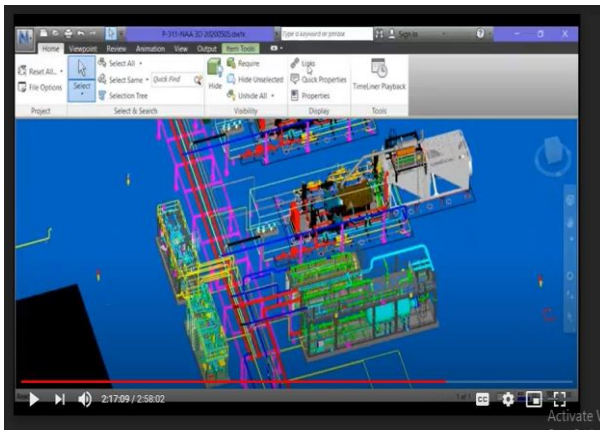
Webinars on Biosafety for Clinical and Public Health by BME Department



Webinars on Nuclear Reactor Operation and Controls by NSE Department



PME Department organized guest lecture sessions on “Placer Mining and Sea Bed Mining.” PME also arranged webinar on Design, “Construction and Operations of Compressor Station in Gas Field.” IPE Department hosted webinars on “Lean Six Sigma, Data Analysis with `R` Software and Business Case Competition Mega Mind 1.0.” NAME Department hosted an online “3D-ship design competition” where students from various universities took part from all over Bangladesh. Prizes were awarded among the top performers. A webinar on the occasion of “World Maritime Day” was also organized by the NAME Department where VC of Islamic University of Technology (IUT), Bangladesh presented a keynote speech.



Guest lecture on Placer Mining and Sea Bed Mining by PME Dept

IEOM Student Chapter MIST Presents

WEBINAR ON

LEAN SIX SIGMA

GUEST SPEAKER



Joseph M. Ogundu, PhD, MBA
 President and CEO, Emerald Global Consulting Inc
 West Bloomfield, Michigan, USA
 Expert and Consultant

An expert in the areas of technical and business innovations, Lean Manufacturing Management, Lean Business Processes, Lean Six-Sigma, Total Quality Management, ISO/TS 16949, Supply Chain Management, Operations and Business Performance Score Card. He worked with General Motors Corporation, Ford Motor Company, Chrysler Corporation and other global leaders in oil and gas, automotive and non automotive industries.

DATE: JULY 16, 2020
TIME: 7.00PM (LOCAL TIME GMT +6)
ZOOM MEETING ID: 907 092 5519
PASSWORD : 162020

Host: IEOM Student Chapter at MIST | **IEOM Society** | **Club Partner: MIST OPTIMIST Club**

DEPARTMENT OF INDUSTRIAL AND PRODUCTION ENGINEERING MILITARY INSTITUTE OF SCIENCE AND TECHNOLOGY, DHAKA, BANGLADESH

Webinars on Lean Six Sigma by IPE Dept

MILITARY INSTITUTE OF SCIENCE & TECHNOLOGY (MIST)

3D SHIP DESIGN COMPETITION

Organized by: Department of Naval Architecture and Marine Engineering (NAME)

ANY TYPE OF VESSEL **SIZE: 20M TO 200M** **USE ANY SUITABLE SOFTWARE** **ANY OUTLOOK**

Undergraduate students from any discipline can participate!

Attractive prize is available!

Send the design to namedept@gmail.com

SUBMISSION DEADLINE
10th SEPTEMBER, 2020

For any queries, contact:
Dr. S M Ikhtiar Mahmud
 01716444310

Webinar on Space Studies and Research in Bangladesh by NAME Dept

AE Department arranged a webinar on “Space Studies and Research in Bangladesh” to share knowledge among faculties, industry professionals and students. Through the online extra-curricular activities, MIST successfully could bring back the spontaneity amongst the students so that they could have at least the essence of campus festivity of normal situation.



Webinar on Space Studies and Research in Bangladesh by AE Dept



Online Competition, Webinars



Online Extra-Curricular Activities



Online Competition, Webinars

Master and the Disciples

When many educational institutions have halted their academic activities, MIST is marching forward despite many challenges. Ultimately students have felt their benefits which are reflected by their various expressions. Fida Masfiha, a student of level-4, expressed many thanks to MIST for completing her graduation in time and be ahead in the competitive job market. Raihan Akash, a student of level-1, was demoralized while MIST was declared closed along with all other

educational institutes of the country as he went to his village home leaving everything behind. He had to be in market place to get internet coverage for his online classes. However, he is now very happy for the completion of his first year engineering study.

Not only students, all the teachers are also very happy with the successful completion of academic activity smoothly. Although, online teaching methodology was an unforeseen challenge for faculty members at the beginning, especially senior teachers were facing lot of difficulties to conduct online classes. However, it did not take long to overcome because of MIST atmosphere. Young faculty members have equipped themselves for conducting online classes quickly and shared the knowledge and expertise with seniors. By this way all teachers of MIST have become well conversant of using Zoom platform, Google classroom, digital dashboards, multimedia tools, etc. Faculty members feel proud to be the part of pioneer performance of MIST in online education.

National Contributions to Combat COVID

Parallel to academics, MIST always feels responsible to serve the mass people of Bangladesh during this crucial time. With the wholehearted effort and support of all faculties, staffs and students, MIST has launched several initiatives for societal and national welfare.



Design and Development of Ventilators



UVC Disinfection Robot

In response to the COVID-19 situation, BME Department took initiative to design, develop and produce low-cost ventilators to aid healthcare facilities. MIST is also performing Quality Control and Validation testing for the Ventilator. Engineers and Scientists of BME Department supported by ME, EECE and CSE Department of MIST and Gigatech jointly began the project late March 2020. BME Department has also produced hand sanitizers to fight ongoing COVID-19 scenario in the country. By the first week of April 2020, MIST produced nearly one lac bottles of hand sanitizer and distributed to the marginalized and floating people, health workers, security personnel and service providers through Bangladesh Army. In addition, MIST also rendered its support to provide hand sanitizer to Kuwait Government.

CSE Department of MIST has developed a cost-effective UVC disinfection semi-autonomous robot to fight against present COVID-19 situation. This robot is able to destroy coronavirus with the help of Ultraviolet Type-C ray. It is applicable for any indoor environment such as office room, classroom, corridor, apartment etc.



Prep of Hand Sanitizers by BME Department

Conclusion

MIST always endeavors that the pandemic does not affect the academic progress and overall wellbeing of the students. Although the classes have been taken virtually, the standard and quality of the education have never been compromised. MIST got the full appreciation from the students through their significant percentage of attendance in online classes. Also, MIST received valuable suggestions from the respected parents of the students. Each and every faculty member is putting their best to make the online classes enjoyable, interactive and educative.

MIST is flourishing the engineering education and remains inspirational for other institutes to emulate and follow. Thus, Even in COVID-19 situation MIST continues academic activities without sacrificing a single day and invites all talented inquisitive young minds to be a part of MIST and establish 'Quality Engineer with Morality'.