# INSTITUTE OF TECHNOLOGY UNIVERSITY OF MORATUWA

# NEWS

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- achievements,
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- Cultural events
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- Article on developing communication skills



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The newsletter of the Institute of Technology University of Moratuwa, "ITUM News" is a bi-annual electronic publication which carries news of academic, cultural and communal life of the Institute of Technology University of Moratuwa.

**Feature Article** 

Academic Events & Services

Personal achievements, Appointments, **Retirements & Staff Development** 

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# **Feature Article**

## Achieving Inclusive & Equitable Quality Technology Education via Online Mode



Dr. (Mrs.) Samanthi C. Mathugama Senior Lecturer **Division of Interdisciplinary Studies** 

The United Nations adopted the Sustainable Development Goals (SDGs), also known as the Global Goals in 2015 to end poverty, protect the planet, and ensure that all people in the world enjoy peace and prosperity by 2030. There are 17 integrated SDGs where the action in one area will affect the outcomes in the others and aim at a socially, economically, and environmentally balanced sustainable development. Creativity, know-how, technology, and financial resources from all strata of society are necessary to achieve SDGs in every context. "Quality Education", Goal 4 of the SDGs is set to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (UNDP, 2022). Achieving inclusive and quality education for all reaffirms the belief that education is one of the most powerful and proven vehicles for sustainable development.

Online education in different levels emerged worldwide during the last two decades with advancements in Information and Computer Technology. Not knowing how to learn on their own and managing time effectively were seen to be the most challenging aspects of the e-learning process and the presence of a teacher and interaction seemed to be essential in order to make the students feel confident in their own learning process. (Anderson, 2007).

Sri Lanka took a high leap in online education with the closure of all Higher Education Institutes (HEIs) due to the COVID-19 outbreak. A total of 20,517 students from 55 HEIs participated in a survey conducted to study access to internet and technological devices and online teaching-related aspects. From a sample of 777 respondents from technology disciplines and 1,097 respondents from Computer Science and Information Technology disciplines an average of 40% preferred to have all classes and laboratory work on-premises while 39% preferred to have 50% of work in online mode, although the survey may have overrepresented the number of students with online access due to sampling limitations (Hayashi et al., 2020).

Another study which examined the effect of the COVID-19 pandemic and related events of e-learning and other key determinants found that behavioral intention is a significant predictor of e-learning usage and attitudes toward e-learning. Experience using computers was found to be closely associated with perceived usefulness (Weerathunga, et al., 2021). According to these findings, both the students and the teaching staff seemed to have accepted the fact that online education was the only way to continue their courses in spite of many shortcomings.

#### Challenges & Opportunities Faced by the Technology Education Sector in Online Mode

#### **Present Situation**

Continuing education on premises was not possible during 2020 and also in 2021 in most HEIs due to the COVID-19 pandemic. The HEIs were able to conduct theory classes or lectures and some virtual practical components only, in online mode.

#### Challenges

Although a majority of students were able to participate in online classes, some faced many challenges and some students were unable to participate due to various reasons. From 15,957 respondents of a survey conducted which included technology students as well, the top challenges identified by students were poor internet connection and unaffordable mobile data plans. Other challenges identified by one student group included getting bored by looking at a phone or a personal computer video screen for hours, facing difficulties in online assessments and/or exams, less faculty-student interaction, and no access to a device and no internet connection (Hayashi et.al, 2020).

From the viewpoint of academic staff (among 1,899 respondents), poor internet connection, difficulty in assessing students' performance, and poor engagement with students were reported as the most frequent challenges. In addition to laptops, faculties of Science, Technology, Engineering, and Mathematics also requested smart pens and smart boards for equations and calculations which highlighted very specific requirements in online teaching in the Science and Technology sector. During the last two years, both students and the teaching staff could mitigate these challenges with different alternatives and approaches (Hayashi et.al, 2020).

Some technology courses started even without an orientation programme. English programmes that were designed to be conducted prior to the normal academic work to improve language skills of students were also conducted in online mode. Students with good English language skills would have benefitted from this while poor language skills might have become a barrier for some. Conducting virtual laboratory classes is still an unanswered question for certain technological subjects as students need to have handson experience to gain the expected level of competencies. Even for available virtual laboratory classes, students' participation, their use of reference material, and their level of understanding are questionable.

#### **Opportunities**

The utilization of the University Learning Management Systems (LMS) and MOODLE by both the students and the teaching staff reached a maximum with the pandemic situation and is still continuing after nearly two years. This has provided many opportunities for both groups. Online live lectures followed by uploading recorded lectures to the LMS was the most preferred and used method by the teaching staff and this provided an additional opportunity for students as they could access the lectures at any time. Uploading recorded lecturers was more beneficial for students following technology-related courses to gain a better knowledge of their subjects. Since all registered students and teaching staff can easily access the LMS, higher inclusiveness and equitable quality can be expected.

Highly motivated students also got the opportunity to take extra online courses for their career development through a variety of open online courses available. In addition, online learning made it possible for students to engage in part-time jobs and get extra income and experience. (Hayashi et al., 2020).

#### Support given by the Authorities

#### Free Internet access and free data service through University LMS

The Sri Lankan government initiated immediate discussions with the University Grants Commission (UGC) and the Telecommunication Regulatory Commission of Sri Lanka (TRCSL) to provide free access to the university LMS and remote learning facilities through the Lanka Education and Research Network (LEARN) which had been developing for over 30 years. With this initiation, all Internet Service Providers in Sri Lanka provided free Internet access to university servers during the pandemic situation until 17th August 2020 (Hayashi et al., 2020). The services through the University LMS are still being provided free of the data charge.

#### Learning platforms

Zoom, MS teams, and Google classrooms provided online platforms with some concessional rates and benefits to continue online education successfully. These facilities are still being utilized successfully by HEIs and the students in various teaching-learningrelated discussions. Figure 1 shows the weekly usage of the "LEARN. Zoom" platform from March 2020 to June 2021. During the week ending 13th June 2021, the platform hosted about 30,000 meetings and 1.6 million users.



Figure 1: Weekly usage of the "LEARN. Zoom" platform

Source: Learn Zoom Resources and Limitations. https://learnaclk. wordpress.com

#### Laptop loan facility

An Interest-free loan facility of Rs. 75,000/= to purchase a laptop computer for students in National Universities was implemented by the Ministry of Education (Higher Education Division) in collaboration with some state banks even before the pandemic. The maximum repayment period was 3 years and the loan amount was recovered through students' monthly Mahapola/Bursary payment. The UGC decided to provide laptops under the loan scheme to 40,000 students entering universities in 2021 up to a maximum of Rs.100,000/-. Other than these two schemes there are many laptop loan opportunities introduced by public and private sector banks.

#### **Institutional support**

Many HEIs improved facilities for online education such as arranging zoom rooms, using external webcams, smart boards, or graphic tablets to encourage students to participate actively in their learning and academic-related work. More than 50% of academic staff too received laptops from the HEIs. Some institutions also took steps to develop their own mechanisms to increase inclusivity of students. An Augmented Reality (AR) based lathe application was developed and implemented to support engineering faculty students to enhance their knowledge of lathe machines and lathe operations, and the developers further expect to introduce AR technologies to the local universities as a step toward enhancing digital education (Alahakoon and Kulatunga, 2021).

#### **Concluding Remarks**

In view of the above, providing internet facilities to all parts of the country has paved the way for inclusiveness in education leading to equitable quality education for all in online mode, but online access via MOODLE, free of data charge for all students was not received by the whole student population in the same manner. This may be due to the different policies and mobile data plans implemented by different internet service providers. Inclusiveness in education is also questionable as the interest-free laptop loan schemes introduced by the Govt. to purchase laptops have not been extended to diploma-level students In HEIs. Since a laptop is crucial for online education, such institutions should seek opportunities to introduce laptop loan schemes with the help of the industry, alumni associations, and well-wishers.

Additional assistance can be provided to students to improve their English language proficiency, once they return to the premises. Supporting authorities with new technologies similar to the institution-developed AR-based models can be designed to improve the quality of engineering and technology-related virtual laboratory classes. As suggested by past studies, much support is needed for both teachers and students to adapt to a more student-centered pedagogical model.

Further, the HEIs need to find out reasons for student dropout from registered courses or for not participating in course activities properly via online mode, and take possible action to retain these students in the higher education system. Given the chance, with proper assistance, these students might one day become entrepreneurs or play leading roles in the economic development of the country.

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# Academic Events & Services

Commencement of Academic Programs for the Year 2021 at the Division of Mechanical Engineering Technology

The Division of Mechanical Engineering Technology commenced academic activities for the 1<sup>st</sup> year NDT students after the COVID-19 lockdown period from 22<sup>nd</sup> October 2021. The Divisional staff conducted practical work in different laboratories strictly adhering to COVID-19 prevention guidelines.



Manufacturing Technology Mini Projects



completion In of the modules, Manufacturing Engineering and Advanced Workshop Technology, the students successfully completed their design projects under the supervision and guidance of Eng. K. M. Ranasiri, Senior Lecturer attached to the Division of Mechanical Engineering Technology. The

mechanical engineering students manufactured simple exercise machines and the marine engineering students designed baby vices. At the completion of the projects, the students were referred to the individual viva sessions to ascertain their participation and knowledge of their own designing, and for the machines to be fully inspected. As the outcome of their project work, students gained hands-on experience of the application of tolerances for different types of engineering products and the ability to design a component to meet desired needs, limiting to realistic constraints.

## Student Orientation Programme for NDT 2020/2021 Batch at the Division of Information Technology



The Division of Information Technology extended tion Programme - NDT 2020/2021 Batch a warm welcome to the 2020 / 2021 new batch of IT students to the Division at the divisional student orientation program held on the 29th of October 2021 as a virtual event. At the outset, Dr. K Galappaththi, the Head of the Division welcomed the new students with her heartiest congratulations, followed by an inspiring speech given by Mr. D.K. Withanage, the former Dean of the Faculty of Information Technology, University of Moratuwa. The students were then introduced to the academic program, and other activities taking place within the IT Division. Interactive activities arranged for students and an entertainment session added colour to the orientation program which was organized by the academic, and the academic support staff of the Division.

## Inauguration of the ITUM Computer Society



The Inauguration Ceremony of the ITUM Computer Society was successfully held by the IT Division of ITUM, virtually on 20th October 2021 with 150 participants. The society kicked off with a total of 95 members, and the 12 office bearers were selected from among students of the NDT 2019 batch. The main objective of the society is to promote the Division of IT among universities and the

industry, both locally and internationally, and to provide opportunities for the students of the Division

to work with the industry in terms of projects and in organizing events. A logo design competition was launched before the inauguration of the society to select the best logo design for the computer society which helped students to explore their creativity. The ceremony was organized by the IT students of the NDT 2019 batch.



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## Workshops & Webinars

#### Hackathon



The first-ever Hackathon organized by the IT Division was held successfully on 21<sup>st</sup> April 2021. The Hackathon was organized with the objective of giving students an opportunity to showcase their coding and other technical skills required for writing computer programs. A total of sixteen (16) teams participated in the competition and three (03) winners were chosen and awarded certificates in recognition of their achievements. This event was held for IT students of the NDT 2019 batch as a virtual competition.

#### Tech Talk Series – 2021

Several online tech talk sessions with IT experts from the industry were organized by the IT Division to keep the students updated and ready to embrace new and in-use technologies in the IT industry and also with the objective of developing their soft skills. Mr. Thilina from Dialog Axiata, Mr. Sanjeewa from WSO2, Mr. Rasan from Allion Technologies, Mr. Shalitha from 99X, were among the resource persons who conducted tech talks in the year 2021.

In addition, several local and international speakers were invited to facilitate the development of soft skills among students. Dr. Abdul Knowles, Director, Confucius Institute, University of Bahamas, conducted a session on public speaking in English. Further, Mr. Akhila Sapumal and Mrs. Himali Rathnaweera also conducted several online sessions with a view of developing soft skills in the students. All these informative sessions received positive feedback from the students.



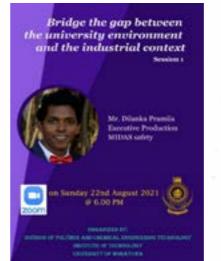
# Skill Development Programs at the Division of Polymer and Chemical Engineering Technology



The Division of Polymer and Chemical Engineering Technology initiated a skills development program to enhance the development of soft skills in the students before they enter the Industry. The major objectives of the program were to make the students aware of the soft skills expected by the industry and to motivate and guide them in developing their soft skills. Four interactive sessions were conducted from 27th May to 10<sup>th</sup> July 2021 with the presence of resource persons who are holding top positions in leading companies in Sri Lanka. Students were highly motivated and benefited from the program.

#### 'Bridge the Gap between the University Environment and the Industrial Context'

A program titled, "Bridge the Gap between the University Environment and the Industrial Context" was conducted by the Division of Polymer and Chemical Engineering Technology in three phases via virtual platform with the participation of four industrial experts in the Polymer Technology field. All the four industrial experts were past NDT polymer diplomates who spent their valuable time with the youngsters making them aware of many important aspects including students' responsibilities during university life, the enhancement of soft skills, future trends in Polymer Technology, and career development opportunities including competing successfully according to industrial demands. The program was attended by the Head of the Division, Dr. (Mrs.) GK Jayathunga, the Head of the Industrial Training, Career Guidance and Post Diploma Education Centre, ITUM, Dr. (Mrs.) M.C.W. Somarathne and other academic staff of the Division of Polymer and Chemical Engineering Technology.





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#### 'LEAP THE HURDLE' Mock interview program



A mock interview program title, 'LEAP THE HURDLE' was successfully conducted for the semester IV students in the Division of Polymer & Chemical Engineering Technology via zoom platform. Mock interviews for semester IV Polymer Technology students were conducted in 6 phases from 23rd August 2021 to 8th September 2021 and the Chemical

Engineering Technology students faced the interviews from 4<sup>th</sup> September 2021.

Altogether 26 panelists, who were holding top positions in the industry, most of them NDT diplomates conducted the mock interviews. Students were able to gain valuable experience and much-needed constructive feedback from the program.



#### Workshops conducted by the Division of Maritime Studies

The Division of Maritime Studies organized & conducted a series of workshops on virtual platform for Marine Engineering Technology & Nautical Studies students of batches 2018/2019 & 2019/2020 from 19th June 2021 to 27th June 2021, during the period the country was under lockdown due to the COVID-19 pandemic.



The first program, 'Desire for Sea' was conducted on 17<sup>th</sup> June 2021, by the Divisional Head, Mr. G.G. Jayarathne with a view of cultivating a desire in the students for a career in the maritime industry. The program touched on many aspects related to life at sea including students' career path, the benefits that can be gained by being a mariner, the challenges to be faced, etc.

On 19th June 2021, the second program, 'How to Groom up yourself as a Cadet Officer' was arranged and the resource person was Capt. Nandika Pieris, serving as a Marine Pilot at the Sri Lanka Ports Authority. Responsibilities as a Sri Lankan seafarer, disparities in shore-based work-life & onboard ships, the importance of personality development and enhancing communication skills were the targeted areas

The third program, 'Are You Ready to Take Challenges' was conducted by the Sub Course Coordinator, Chief Engineer, Mr. WADWL Weerasinghe on 24th June 2021. The workshop provided a thorough understanding ARE YOU READY . TAKE CHALLENGES of the basic ship management structure including ship owners' HUNE 24, 2021 JPM-SPM expectations. Accidents that can happen onboard ships were also addressed and the responsibilities of a seafarer on such occasions were discussed. The speaker as a mariner shared his own experiences and described the many challenges that he had had to face while at sea.



On 26<sup>th</sup> June 2021 the fourth program 'Why You Need Preparedness' was

organized by the Division, and the guest speaker was the Senior Manager / Consultant Training & Development at the Mahapola Maritime Academy, Capt. Gamini Wilson. This program provided students with a sound knowledge of the basic short courses that they would have to follow prior to working onboard a ship. In addition, the speaker also advised the students on how to make themselves ready before going on board a ship, highlighting the documentation requirements such as obtaining a passport, the CDC, medical certificates, etc.

The final program of the series of workshops organized by the Division was 'Leadership & Challenges' conducted by the Senior Deputy Harbour Master at the Colombo Port, Capt. Lakshi Wasantha. The workshop dealt with, the importance of developing leadership qualities, the soft skills needed, the importance of English language skills, and physical & mental strength.







## Workshops and Webinars conducted by the Division of Textile & Clothing Technology

The Division of Textile and Clothing Technology successfully conducted 04 webinars and workshops during the COVID-19 lockdown period in 2021, for all students of the Textile Division.

•A workshop titled "Yarn covering & texturing new method and industry experience" was conducted on 10<sup>th</sup> June 2021 by Mr. C. Wijesinghe, Senior Executive - Product Development and Innovation of Stretchline (PVT) Ltd., Biyagama, with the participation of 100 students and the staff.

•A workshop on "Yarn quality to fabric quality: Yarn to fabric with industry experience" was conducted on 15<sup>th</sup> June 2021 by Mr. Hirantha Bandara, Knitting Manager, Teejay Lanka (PVT) Ltd., Awissawella, with the participation of 97 students and the staff.

• A workshop titled "From concept to market" was conducted on 17th June 2021 by Ms. N. Bandara, Senior Manager - Customer Lead PVH & Ms. D. Wewagedara,

Manager -Merchandising Brandix Essentials, with the participation of 100 students and the staff.

• On 21st September 2021 a webinar titled, "Awareness session on training" was conducted for semester IV students by a team of past students of the NDT Textile division including Mr. Sajith Disanayaka, Mr. Damitha Jayasundara, Mr. Princely Weerakoon, Mr. Roshan Priyadarshana, Mr. Kalinga Madushanka, and Mr. Chalana Galkissa.

• On 16th October 2021, Mr. Darshana Tennakoon, Head of Manufacturing Support, Thurulie, MAS Intimates delivered a lecture on 'Lean manufacturing and Dancing modules'.

• Apparel Technologies renewed the license of the Lectra software for the benefit of the textile division students to acquire a knowledge of Computer Aided Designing.

On behalf of the ITUM, the Head of the Division of Textile and Clothing Technology, Dr. (Mrs.) Kokila Abeykoon conveys her sincere gratitude to all the presenters and the staff of the Division for organizing informative and valuable presentations for the betterment of the students.

## Establishment of the English Language Teaching Unit at ITUM

English, Mathematics, Aesthetic studies, and Sports studies courses at ITUM are presently conducted by the Division of Interdisciplinary Studies. To cater to the needs of the increased student intake and the need for an increased number of modules to be offered, a separate academic entity to conduct English language courses at ITUM was perceived and led to the creation of an English Language Teaching Unit being established at ITUM in May 2021 under the Division of Interdisciplinary Studies. Mrs. S. Nagodavithana (Senior Lecturer Gr. I) was formally appointed to coordinate the English language courses offered by the newly established ELTU.



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## Online Programs held during 2021 by the Student Staff Development Unit (SSDU)

Amidst the lockdown caused by the COVID-19 pandemic, the SSDU held several online programs for the benefit of the students. During a time of online learning when the students were deprived of the opportunity of enjoying the company of their peers, these programs were successful in uplifting their spirits and making them feel a sense of belonging and togetherness.

#### 1- Chat with Bathiya Jayakody

The SSDU organized an exclusive webinar titled, 'Chat with Bathiya Jayakody' for students and academia on 4th February 2021. Renowned singer and artist Mr. Bathiya Jayakody was present at the session and enthralled the audience by describing the journey of his life and the milestones that his friend, Mr. Santhush, and he had achieved when producing songs and music for entertainment. He also spoke about the strategic decisions that they had taken to produce multi-cultural songs with a view of promoting ethnic harmony in Sri Lanka. Mr. Bathiya stressed the need to think innovatively and motivated the participants to develop their creativity while emphasizing that young people should identify the purpose of their lives. Upon a request from the participants, Mr. Bathiya entertained the audience by singing an excerpt from the song, 'Ran Kurahan Mala Sema' and his latest release, 'Roo Sara'.



#### 2 - Learn and Lead

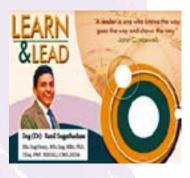
A personal development and leadership webinar was held for the students on 24<sup>th</sup> February 2021. The program titled 'Learn and Lead' was conducted by senior lecturer, Eng. (Dr.) Ranil Sugathadasa, from the University of Moratuwa.

Dr. Sugathadasa spoke on the topic, 'loving yourself and your alma mater and encouraged the students to draw inspiration from historical figures of Sri Lanka such as King Parakramabahu, and motivated students to develop leadership qualities. The central message throughout the webinar was 'Be happy and help others be happy'. In a time of online learning when students were undoubtedly feeling isolated, the inspiring words of Dr. Sugathadasa enabled the students to embrace their academic work with renewed vigor.

#### 3- Think on your feet



A motivational program titled 'Think on your feet' was conducted by Dr. N. Kumaranayaka for the students of the 19th batch on the 10th and the 17th of June, 2021. With a spirit of inclusiveness, another motivational program was conducted for the Tamil-speaking students by Dr. S. Subramanian on the 11th of June.



#### 4- My Life in Corporate Biz

A special guest lecture titled, 'My Life in Corporate Biz' was held for semester 4 students on 18<sup>th</sup> June. This program was conducted by Mr. Mohamed Dilshan, Director Marketing and Biz Development of Bodyline Pvt. Ltd. Mr. Dilshan clearly articulated life in a corporate environment for the students who were at the cusp of embarking on their industrial training period. The program proved to be infinitely worthwhile for the students.



#### 5- Rhythm of Life



On 21st June, a life story sharing session called 'Rhythm of Life', was conducted by Prof. Saumaya Liyanage for the 19<sup>th</sup> batch of ITUM students. Prof. Liyanage guided the students through various milestones of his illustrious career, giving the students a rare opportunity to learn life lessons through his experiences.

#### 6- සිහින වලට පාට අරන්

One of the highlights of the SSDU calendar for the months of June /July was the digital platform titled



'සිහින වලට පාට අරන්'. The platform provided a forum for the 19<sup>th</sup> batch of students to showcase their creativity in the form of poetry, music, art, and photography. This successful venture was concluded with an event on 3rd July called 'සිහිත වලට පාට අරන්', where the best submissions by the students received commendation by the renowned personality Prof. Attanayake M. Herath. This program was further enriched by the music provided by Ms. Dinupa Kodagaoda and Mr. Nadeeka Weligampola.

## 7- රොඩ්නි සමග පුරා පැයක්

On 9th November 2021, the SSDU organized an entertainment program for the 2019/2020 batch of students with the renowned stage and film actor and singer Mr. Rodney Warnakula, titled 'රොඩනි සමග පුරා පැයක්',



via the ZOOM platform. The students were treated to many songs including the famous 'Anna Balan Sada' written by the legendary poet Mahagamasekara and 'කුමටද සොබනියේ from the famed 'නරිබැණා' stage drama. True to his famous personality, Mr. Rodney Warnakula, brought the screen to life through many interesting anecdotes and entertaining performances. In addition to the music and entertainment, Mr. Warnakula, explained to the students the

importance of being happy during every stage of one's life. He reiterated the importance of incorporating aesthetics into students' lives, to produce well-balanced individuals. The program successfully concluded with the rendering of 'endering of 'endering

#### **Quality Assurance at ITUM**

Upholding the quality of higher education has presently become an increasingly important global trend. With a vision of becoming a center of excellence in technological education, an Internal Quality Assurance system which had been a long-felt need at the Institute since its inception in 2000 was implemented in 2015 under the guidance of the former Director, Mrs. MMPD Samarasekara. Mrs. GWTC Kandamby, (Senior Lecturer) attached to the Division of Civil Engineering Technology was appointed as the first Chairperson of the Quality Assurance Committee which was later upgraded to the Internal Quality Assurance Unit (IQAU) in 2019 by the then Competent Authority, Retired Major General S K Thirunavukarasu.



Over the last five years, the quality assurance system at ITUM has been gradually developing. The scope of the unit is "to provide guidance for the Institution on the implementation of quality assurance procedures at institutional activities". In accordance with the quality policy and the practices at ITUM, the Quality Assurance Manual was prepared in 2018, to ensure the quality of continuous development and efficient performance in the areas of curriculum, assessment, program management, staff development, the monitoring and reviewing of the programs

and student support at ITUM. Concurrently, quality forms were generated to collect information from all academic staff members in order to streamline the teaching and learning process at the Institute.

The committee was restructured in 2021, and after the completion of Mrs. GWTC Kandamby's tenure, Dr. (Mrs.) SC Mathugama was appointed as the Head of the Quality Assurance Unit (QAU) in August 2021. The initiatives of the unit in 2021 included the preparation of health and safety guidelines, the preparation of a feedback form for online delivery, and the preparation of monthly reports on online delivery and assessments. In order to educate the members, two online workshops on "Total Quality Management" and "Quality Management Systems" were conducted by Mr. Malin Gunasekera, Head of the Division of Mechanical Engineering Technology, and Mrs. Dileesha Wijerathna, Lecturer attached to the Division of Maritime Studies.

The new Head of the Unit along with the QA committee members greatly appreciate and acknowledge the valuable service rendered by the former Chairperson / Head of the QAU, Mrs. GWTC Kandamby who retired from service in September 2021.





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# Personal Achievements, Appointments, Retirements & Staff Development

## Awards

Dr. Kalpana Galappaththi was awarded 'The Presidential Award for Scientific Research, 2018'



Dr. Kalpana Galappaththi, the Head of the Division of Information Technology was awarded the Presidential Award for Scientific Research, 2018 in recognition of her outstanding research titled "A rational design of high efficient and low-cost dye sensitizer with exceptional absorptions: Computational study of cyanidin based organic sensitizer" which was published in Solar Energy, Volume 161, Pages 83-89", one of the high-ranking Journals in the world.

Each year, this award is granted to the top 100 papers published in journals with the highest SCImago Journal Ranking (SJR), in which at least 20% of the authors had to be Sri Lankan scientists having a local institutional affiliation. The presentation of awards was organized by the National Research Council (NRC), under the Ministry of Science, Technology, and Research in Sri Lanka. The ceremony was held on 6th April 2021 as an online event due to the COVID-19 pandemic.

Mrs. Imesha Samarathunga was awarded the best research paper award at the 7<sup>th</sup> **International Multidisciplinary Engineering Research Conference MERCon 2021** 

Mrs. Imesha Samarathunga, attached to the Division of Polymer and Chemical Engineering Technology, won the Best research paper award at MERCon 2021 in the sustainable energy and Environment track for her research paper on, Effect of influent volumetric loading of skim latex wastewater on anaerobic sulfate reduction.



## Long Service Award



Mrs. P. S Yatapana, Senior Lecturer attached to the Division of Interdisciplinary Studies, ITUM was honoured with the Long Service Award by the University of Moratuwa in January 2021 for her commendable service of 35 years to the University of Moratuwa and ITUM. Dr. C. S. Lewangamage, the then Competent Authority of ITUM presented the award to Mrs. P.S. Yatapana at the 224<sup>th</sup> meeting of the Board of Studies of ITUM held on 7<sup>th</sup> January 2021. Mrs. Yatapana started her career in 1985 as an Engineering Teaching Assistant attached to the Department of Mathematics of the Faculty of Engineering, University of Moratuwa.

She was one of the former Heads of the Division of Interdisciplinary Studies and served ITUM in many capacities such as being the Senior Student Counsellor and the Chairperson of the BOS appointed standing committee on research.



The Council of the University of Moratuwa appointed Major General (Retired) S. K. Thirunavukarasu RSP VSV USP as the new Director of the Institute of Technology University of Moratuwa. The new Director assumed official duties at ITUM on 16.02.2021.

Prior to his appointment as the Director of ITUM, Major General (Retired) S.K. Thirunavukarasu served the Institute as its Competent Authority from May 2019 to January 2020.

The Institute congratulates Major General (Retired.) S.K. Thirunavukarasu on his appointment as its Director.

#### Appointment as the Head of the Industrial Training, Career Guidance, and Post Diploma **Education Centre**

Dr. (Mrs.) Chandani Somaratne was appointed as the Head of the newly established Industrial Training, Career Guidance, and Post Diploma Education Center of ITUM with effect from 01.10.2021.

With the establishment of the new Centre, training-related activities of students, an essential component of the NDT program, earlier handled by the Industrial Training Unit of ITUM were brought under the purview of the newly established Centre. The new Centre is also entrusted with planning and implementing career guidance activities for students with a view of helping them to plan for future career endeavors based on their individual interests, skills, and, values. In addition, the Centre is assigned the task of exploring paths available for post-diploma education of NDT diplomates and liaising between such institutes/universities and the diplomates.

## New Appointment as the Head of the System Management Unit, ITUM



Dr. (Mrs.) Kalpana Galappaththi, the Head of the Division of Information Technology, assumed duties as the Head of the System Management Unit of ITUM with effect from 15<sup>th</sup> July 2021.

## Appointments

#### Appointment as the new Director of the Institute



#### ITUM News/ Newsletter / Volume 04 / Issue 1 & 2 / Jan-Dec 2021

#### **New Recruitments**

ITUM is pleased to welcome the following new probationary lecturers who joined the academic staff in 2021.

## **Division of Civil Engineering Technology**



#### Dr. M.M.H.W. Bandara

B.Sc. (Hons), University of Moratuwa, Ph.D. University of Moratuwa Associate Professional, Green Building Council of Sri Lanka AMIESL.

Specialisation: Highway Construction and Transportation Engineering, Building Design and Construction Technology.

Dr. M.M.H.W. Bandara



#### Ms. G.K.P. John

M. Eng., Asian Institute of Technology, Thailand B.Sc. (Hons), General Sir John Kotelawala Defence University Ph.D. (Reading), University of Moratuwa Associate Professional, Green Building Council of Sri Lanka

Ms. G.K.P. John



Specialisation: Environmental Engineering, Sustainable Design, and Construction

Ms. Ashvinie Thembiliyagoda B. Tech. (Hons), NIT India, M.Phil. (Reading), University of Moratuwa Associate Professional, Green Building Council of Sri Lanka, AMIESL

Specialisation: Water Resources Engineering and Civil Engineering Management

Ms. Ashvinie Thembiliyagoda



Mr. T. Kajaharan

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Mr. T. Kajaharan B.Sc. (Hons), University of Moratuwa M.Phil. (Reading), University of Moratuwa Associate Professional, Green Building Council of Sri Lanka, AMIESL

Engineering

Specialisation: Construction Management, Project Management, and Structural



Mr. (Eng.) K.A.C.H. Jayasekara B. Sc. (Eng.) Hons. University of Peradeniya AMIE (SL)

#### Mr. (Eng.) K.A.C.H. Jayasekara



Mr. (Eng.) Asanka Sudarshana B. Sc. (Eng.), University of Moratuwa P.G Dip. University of Moratuwa AMIE (SL)

Specialisation: Engineering Design, Engineering Drawing, and CAD

Mr. (Eng.) Asanka Sudarshana

#### Retirement

Retirement of Mrs. G.W.T.C. Kandamby, attached to the Division of Civil Engineering Technology



Mrs. G.W.T.C. Kandamby, a Senior Lecturer (Grade II) attached to the Division of Civil Engineering Technology retired from service on 05.09.2021. A former Head of the Division of Civil Engineering Technology, Mrs. Kandamby chaired the Quality Assurance Unit of ITUM and served in many other committees at the Institute. ITUM wishes her a healthy and joyous retirement.

#### Division of Mechanical Engineering Technology (in October 2021)

Specialisation: Automobile Engineering, and Engineering Mechanics

## **Research, Conferences and Workshops**

#### The 8th Annual Research Symposium 2021 -ITUMRS2021

The 8<sup>th</sup> annual research symposium of ITUM was held virtually on 29<sup>th</sup> September 2021 under the theme 'Broadening Horizons', amidst a gathering of researchers, academics, and other distinguished invitees.

Dr. Srimala Perera, the Head of the Research Unit of ITUM said that the ITUM research Unit had opened



its doors for researchers from diverse backgrounds to present their research findings at the ITUM research symposium 2021, and thanked everyone who had contributed to its success.

UMRS2021

The Director of ITUM, Major General (Retd.) S. K. Thirunavukarasu in his address noted that steps taken to invite researchers from other universities and higher educational institutes and the industry would pave the way for new academic staff members as well as students of ITUM to develop an enthusiasm for research.

The keynote address was given by Prof. Ajith de Alwis, the Dean of the Faculty of Graduate Studies, University of Moratuwa who stressed the importance of 'research outcome' over 'research output' and explained the advantage of learning from nature to address engineering related research problems. Dr. (Mrs.) Kalpana Galappaththi the Head of the Division of Information Technology of ITUM delivered a special speech on Cyber-Physical Social Systems, adding value to the inaugural session of the symposium.

This year, the research papers were presented under the five tracks of Education Technology, Civil Engineering Technology, Polymer Technology, Chemical Engineering Technology, and Information Technology. The respective sessions were chaired by Dr. (Mrs.) Samanthi Mathugama, Dr. (Mrs.) Premila Semananda, Dr. (Mrs.) Chandani Somarathna, Dr. (Mrs.) Gimhani Madushika and Dr. (Mrs.) Kalpana Galappaththi.

Out of the twenty-nine research papers that were presented at ITUMRS2021, eleven papers were from the ITUM academic staff. The members of the ITUM staff who presented their research findings at ITUMRS 2021 were Mrs. M. M. P. D. Samarasekara, Mr. D.N. Gunasekara and Mr. A.U.V.B. Bulathsinhala from the Division of Civil Engineering Technology, Mrs. G. K. Jayatunga, Mrs. I.R. Samarathunga, Ms. W.V.W.H. Wickramaarachchi, and Dr. Sudarshana Perera from the Division of Polymer and Chemical Engineering Technology, Mrs. P. S. Yatapana, Ms. J.A.S.D. Bandara, Ms. L.P. Kumarasiri, Ms. W.E. Iroshani, and Ms. A.K. D. K. Chathurangi from the Division of Interdisciplinary Studies, Mr. J.M.P. Gunasekera and Ms. M.D.G.M. Gamage from the Division of Mechanical Engineering Technology, and Mrs. A.W.C.K. Atugoda from the Division of Electrical and Electronics Engineering Technology.

Proceedings of ITUMRS 2021 - https://rs.itum.mrt.ac.lk

ITUMRS2021 was sponsored by M/s. Tee Jay Lanka PLC.

## Awardees of the ITUM Research Grant (ITUMRG)

Five senior academic staff members of ITUM received the ITUM Research Grant for the year 2021.

Mrs. M. M. P. D. Samarasekara, Dr. (Mrs.) K. Galappaththi, Dr.

(Mrs.) N.P.K. Semananda, Dr. (Mrs.) D.D.G.A.D.S. Saparamadu and Dr. (Mrs.) G.K. Jayathunga received the ITUMRG for their respective research projects on "Change in properties of metamorphic rocks with the rock type and weathering grade", "Resource recovery and waste minimization in the construction industry", "Trends in the student behavioral pattern in using Learning Management System", "Sustainable mobility: Relation between environmental attributes and walking preference of University students in tropical urban context", and "Development of a biomassbased adsorbent for removal of pollutants from wastewater".

#### Chairing sessions at (WDRC) 2021 by Dr. Kokila Abeykoon

Dr. (Mrs.) Kokila Abeykoon, of the Division of Textile and Clothing Technology, chaired two sessions in the 6<sup>th</sup> World Disability and Rehabilitation Conference (WDRC) 2021, held virtually on the 11th and 12<sup>th</sup> of November 2021. Assistive Technology and Access and Advocacy were the track themes of the sessions she chaired.

Further, Dr. Abeykoon presented a paper in the same conference titled "Physical capability needs in the apparel sewing room: WARM mapping framework for people with physical disabilities".

#### **Conference Website:**

https://drive.google.com/file/d/1ViYf6RPCIKQhgensvqBrwKtkQWUSSr0P/view

#### **Conference Presentations & Publications**

## 17th Annual SLAIHEE Conference

Four members of the ITUM academic staff: Dr. (Mrs.) S.C. Mathugama, from the Division of Interdisciplinary Studies, Dr. (Mrs.) W.P.S.K. Perera and, Mrs. V. G. Piyumi Pabasara from the Division of Textile and Clothing Technology and, Mrs. I. R. Samarathunga, from the Division of Polymer and Chemical Engineering Technology, presented their respective research papers titled, "Use of practical based online teaching and (continuous) assessment methods to enhance student performance", "Facilitating students with meaningful priming", "Adaptation of Jigsaw technique to virtual classroom at COVID-19 onset and its effect on student learning experience" and, "Student & staff perceptions on a restructured practical class assessment to increase student engagement and performance" at the 17th, Annual SLAIHEE conference, conducted online in 2021.

#### **Conference** Attendance



#### The 7<sup>th</sup> International Multidisciplinary Engineering Research Conference MERCon 2021

Members of the ITUM academic staff who presented their research papers at the MERCon Research Conference held in 2021 were Mrs. I. R. Samarathunga from the Division of Polymer and Chemical Engineering Technology on the title, "Effect of influent volumetric loading of skim latex wastewater on anaerobic sulfate reduction", Dr. (Mrs.) D.D.G.A.D.S. Saparamadu from the Division of Interdisciplinary Studies on the title, "Estimating Passenger Delays at Airport Terminal Service Centers", and Ms. W.V.W.H. Wickramaarachchi from the Division of Polymer and Chemical Engineering Technology on the title, "Development of a Competitive Thermoplastic Vulcanizate Roofing Sheet from Natural Rubber and High-Density Polyethylene".

#### The 8th Ruhuna International Science & Technology Conference

Ms. J. A. S. D. Bandara attached to the Division of Interdisciplinary Studies published two abstracts in The 8th Ruhuna International Science & Technology Conference held on 17th February 2021, one on the title, "Investigation of physical fitness and anthropometric measurements of elite Karate Kumite athletes of Sri Lanka" and, the other on the title, "Anthropometry and vertical jump height of national Taekwondo players".

#### International Conference on Advanced Research in Computing (ICARAC)

Dr. (Mrs.) K. Galappaththi, from the Division of Information Technology published a paper in the International Conference on Advanced Research in Computing (ICARAC) conducted by the Faculty of Applied Science, University of Sabaragamuwa, Sri Lanka, titled, "A data mining approach to identify associations between job titles and skills in job vacancies".

#### 6th World Disability and Rehabilitation Conference (WDRC) 2021

Dr. (Mrs.) Kokila Abeykoon, attached to the Division of Textile and Clothing Technology, presented a research paper titled, "Physical capability needs in apparel sewing room: WARMmapping framework for people with physical disabilities", at the 6th World Disability and Rehabilitation Conference (WDRC) 2021, held virtually on 11th of November 2021.

#### International Symposium, INWEPF 2021

Dr. (Mrs.) Bhadranie Thoradeniya from the Division of Civil Engineering Technology presented a research paper based on ongoing research titled, "Farmer Organizations of Small Irrigation Schemes in Sri Lanka; Current status" at the International Symposium, INWEPF 2021, of the International Network for Water and Ecosystems in Paddy Fields.

## International Research Conference on Smart Computing and Systems Engineering (SCSE)-2021

Mr. M.I.M. Amjath, attached to the Division of Information Technology, published a research paper titled, "TrackWarn: An AI-driven warning system for railway track workers" in the 2021 International Research Conference on Smart Computing and Systems Engineering (SCSE) conducted by the Department of Industrial Management, Faculty of Science, University of Kelaniya.

## The IESL Young Members Technical Conference 2021

Mr. L.G. Chamath, from the Division of Mechanical Engineering Technology, published a paper in the IESL Young Members Technical conference 2021, titled "Determination of transverse thermal conductivity of coir fibres by analytical methods".

## 2021 International Conference in Data Science (ICDS)

Mrs. H. M. Jayathilake, from the Division of Information Technology, published an abstract in the '2021 International Conference in Data Science (ICDS) titled, "Gamified Feedback and Job Satisfaction of Generation-Z Software Professional in Post-COVID-19 Environment".

## **Journal Publications**

## Machine Learning & Knowledge Extraction (MAKE) open-access Web of Science, scientific journal

Ms. M. V. P. T. Lakshika, attached to the Division of Information Technology, published a research article titled "Knowledge Graphs Representation for Event-Related E-News Articles" as the main author in the Machine Learning & Knowledge Extraction (MAKE) open-access scientific journal Web of Science published by the Multidisciplinary Digital Publishing (MDPI) Institute, Basel, Switzerland.

#### Journal of Modeling Earth Systems and Environment (Springer Nature 2021)

Dr. P.D.C. Kumara, from the Division of Mechanical Engineering Technology, published an article in the Journal of Modeling Earth Systems and Environment (Springer Nature 2021), titled "Performance analysis of two condenser models used for solar energy-assisted water distillation".

#### The Journal, Buildings

Mr. T. Kajaharan, from the Division of Civil Engineering Technology, recently published two research articles, one in the Journal, Buildings titled "Sustainable Performance of a Modular Building System Made of Built-Up Cold-Formed Steel Beams", and the second research article in the Journal, Engineering Structures titled "Shear behavior of doubly symmetric rectangular hollow flange beam with circular edgestiffened openings".

#### **International Journal of Environmental Science and Technology**

Dr. (Mrs.) H.G. Madhushika, attached to the Division of Polymer and Chemical Engineering Technology, published a paper in the International Journal of Environmental Science and Technology titled "Biodegradation of reactive yellow EXF dye: optimization of physiochemical parameters and analysis of degradation products".

#### Journal of English Language Teaching and Applied Linguistics

Mrs. S. Nagodavithana and Mrs. P.B.T.K. Premarathne attached to the Division of Interdisciplinary Studies co-authored and published a paper titled "A Study of Vocabulary Learning Strategies and their *Effect on Vocabulary Development*" in the Journal of English Language Teaching and Applied Linguistics.

# **Staff Development Programs**

## Webinars organized by the ITUM Research Unit for the Academic Staff

#### Cultivating intellects-unframed thinking

The ITUM research Unit organized a six session webinar series themed "Cultivating intellectsunframed thinking" on 27th and 29th July and 3rd, 19th, 20th and 23rd August via zoom platform. Dr. Sunil Wijesiriwardena (Visiting Lecturer, UoC) and Dr.

Ursla Shyamali (Senior Lecturer, UoW) were the main resource persons of the series. The first three sessions of the webinar series mainly focused on showing how our minds were conditioned, how certain psychological barriers blind us from thinking holistically, and how to think logically based on evidence. The next two sessions

demonstrated the strong connection between statistics and evidence-based research.

The webinar series ended with a thought-provoking session on the "Research mind", conducted by the experienced researcher and scientist Mr. Mendis Wickremasinghe.

#### Conducting Systematic Review in Engineering Technology-Methodology, Standards and Guidelines

A two-session webinar on conducting systematic reviews in engineering technology, organized by the ITUM Research Unit was held on the 14th and 15th of December 2021 via Zoom. Mrs. Sriyani Perera, retired Senior Assistant Librarian, University of Peradeniya conducted the sessions and generously shared her experiences as a collaborator and facilitator in Systematic Reviewing with the participants.





Studies on-premises as well as via the zoom platform. This was followed by a comprehensive firefighting handson practical session for the academic and non-academic staff of ITUM on the second day by the Chief Training Officer of the Fire Brigade, Mr. Gamini Galagamage.



#### Training Programs conducted by the IT Division

Online exam awareness and training sessions were conducted for the staff and the students by Ms. H. M. Jayathilake and Ms. A.L.M.D. Silva, lecturers attached to the IT Division, with the aim of facilitating semester-end examinations using modern online tools. The sessions were successfully held on virtual platform on 21st January and 5th May 2021.

In collaboration with the SSDU of ITUM, staff members attached to the IT Division also conducted two staff training programs titled, "Available Tools for Online Teaching" with the goal of promoting effective online teaching.

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## A Successful Fire Safety Training Session Conducted at ITUM



According to a novel concept of the Director of ITUM, Major General (Rtd.) S K Thirunavukarasu, an Emergency Response Plan to act on any emergency that occurs within the Institute was devised by the Safety Committee of ITUM. As a first step, a two-day Fire training session was successfully conducted by the Safety Committee on the 20th & 22nd of July 2021. On day one, the Head of the Safety Committee, Mr. G.G. Jayarathne conducted an awareness program which was organized by the Division of Maritime



#### Staff Training Sessions & Workshops organized by the SSDU of ITUM

#### Training Session on 'Available Tools for Online Teaching'

The SSDU successfully conducted two training sessions on 'Available Tools for Online Teaching' for the academic staff of ITUM on 21st January 2021 and 22nd April 2021. The resource persons were, Mrs. Uthpala Athukorala, Mrs. Hansinie Jayathilaka, and Mr. M. I. M. Amjath attached to the Division of Information Technology of ITUM. The participants received hands-on training on very useful but infrequently used features of the ZOOM application, video editing, and a variety of other important applications available on the MOODLE platform.

Since almost all the academic work was conducted online due to the COVID -19 pandemic, the content covered was extremely useful for the academic staff to improve the quality of their online lectures.



Workshop on Procurement and Technical Evaluation Committee Procedures



The SSDU organized a workshop on "Procurement and Technical Evaluation Committee Procedures" for the academic, the non-academic and the administrative staff of ITUM with a view of providing an understanding of public procurement procedures and contract administration processes. The resource person for the workshop was Mr. Aruna Lokugamage, Senior Counsellor, of the Sri Lanka Institute of Development Administration. The program was conducted on 12th March 2021.

#### **ITUM Toastmasters Club**

Chartered on 30th June 2018, The Institute of Technology University of Moratuwa Toastmasters Club (ITUMTC) has succeeded in creating a supportive and positive learning environment for both academic and non-academic staff of ITUM.

The movement restrictions imposed due to the COVID-19 pandemic couldn't halt the ITUM Toastmasters pursuing their mission, and the club continued to support the members in improving their public speaking and leadership skills, making use of the available resources for online meetings.



The club achieved the Distinguished Club status in 2018-2019, the Select Distinguished Club status in 2019-2020, and the President Distinguished Club status in 2020-2021. The ITUM Toastmasters Club also achieved recognition as a Quality Club in District 82 by scoring 85/100 in Club Quality Avenue.

In 2021, ITUM Toastmasters Club was able to win multiple educational awards in Toastmasters Pathways. TM Lalith Manage accomplished Level 3 and TM Gimhani Madhushika achieved Level 1 in Dynamic Leadership. The charter president TM Manjula Wickaramathilake also achieved Level 2 while reading for his Ph.D. TM Sandaruwan Jayalth completed Level 4 in Innovative Planning and Level 1 and 2 in Persuasive

Influence pathway, also while reading for the Ph.D.

Significantly, the appointment of TM Lalith Manage, a former president of the ITUM Toastmasters Club as the Area Director of Area B1 is a milestone achievement for the club.

TM Lalith Manage and TM Sandaruwan Jayalath also won the prestigious Triple Crown award for successfully completing three levels during a Toastmasters' year.

In the coming year, the club is aspiring to achieve new heights. We invite members of the staff, their families and the alumni to join the club and jumpstart their journey in public speaking.

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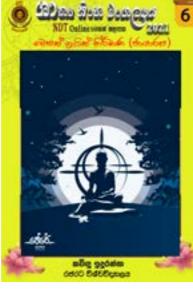
# **Cultural Events**

## Shakya Sinha Mangalya 2021



The NDT Students' Union celebrated the Vesak festival by organizing a Digital Vesak Zone on the ITUM Facebook page for the second consecutive year, due to the Covid-19 pandemic. This was organized as an open competition conducted in the categories of creative Vesak lanterns, Vesak 'Bakti Gee', Vesak thoughts, Vesak cards, graphical creation (photography), graphical creation (animation), and Vesak photography. Many students including undergraduates from other universities submitted their creations from 23<sup>rd</sup> May to 29<sup>th</sup> May. The items were posted on the Facebook page from 1<sup>st</sup> June 2021 to 3<sup>rd</sup> June 2021. Three winners from each category were selected and the selections were done 50% according to the judges' preferences and 50% from Facebook likes. Prizes were also awarded to the winners.









#### "Jeewithaya Apeda" online programme

The NDT Literary Arts Society held the "Jeewithaya On 19th November 2021, Divisional students of Apeda" online programme successfully on 15th Semester III organized a splendid talent show September 2021. Versatile actor and dramatist Mr. displaying the creative abilities of the students in Gihan Fernando and Musician Mr. Nadeeka Guruge drawing, singing, poetry, and compering. The were the resource persons. Director and all staff members of the Divisions were invited to attend the show and witness the talents of the students.

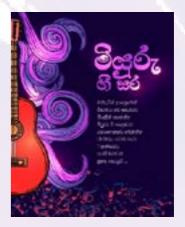


#### Sarasavi Damsara 2021 (Poson Bathi Gee Saraniya)

In celebration of Poson poya day, the Literary Arts Society of the NDT Students' Union organized the 'Poson Bathi Gee Saraniya' for the second consecutive year with the participation of undergraduates, on 24th June. Two Bathi Gee recitals were telecast via Facebook and the NDT VOICE YouTube channel.



#### **Talent Show**



# **Sports News**

#### Appointments

ITUM is proud of its sportsmen and sportswomen who showed their potential and dedication towards sports with another successful year of achievement. Appreciating their true sportsmanship, hard work, and passion for sports, ITUM students were appointed as the Captains and the Vice-Captains of the following sports teams for the year 2021.



Sidath Lankeshwara Captain (Karate - Men's)



Suraj Rashmika Captain (Volleyball -Men's)



Kanishka Sandeepani Captain (Volleyball -Women's)



Asanka Bandara Captain (Road Race -Men's)



Thiwanka Nuwan View Captain (Athletics-Men's)

#### **University Colours Awarding Ceremony 2021**

At the Annual Colours Awarding Ceremony 2021 of the University of Moratuwa, twenty-eight sportsmen and sportswomen from ITUM received university colours in recognition of their outstanding talents, dedication, hard work, and their passion for sports.

Six students from ITUM, namely J.P.T. Nuwan, R.W.A.B.D. Jayasekara, W.A.P.D. Wanigasuriya and W.M.T.N. Kumara received university colours in athletics and H.A.K. Niwanthaka and B.M.A. Bandara for their performances in the road race and the 100 m relay, respectively.

In addition, A.L.A.S.L. Liyanaarachchi and W.M.S. Wijesinghe was awarded university colours for their achievements in the sporting discipline of karate, K.H.K.S. Wijesekara for carom and R.D. Shamal for badminton.

Students who received university colours for team sports included D.U.A.U. Silva for Rugby, C.A.B. Pallegedara and W.V.P.H.M. Wijerathna for Baseball, E.K.P.A. Dilmira, and K.T.S. Rasara for Elle (Men's) and P. S. Malsha Harshani, H.A.I.S. Hettiarachchi and S.A. Abeywickrama for Elle (Women's).

University colors for Volleyball (men's) were awarded to S.M.S.D. Semasinghe, K.P.A.S.R. Keppitipola, H.L.Y. Yasanga, N.K.N. Nawarathna, H.P.I. Sandanayaka, J.H.S. Rashmika, R.A.U.S.D. Ranasingha, M. M. K. S. Maheepala, and D. J. S. Fernando while A. K. Sandeepani, received university colours for Volleyball (Women's).

ITUM congratulates all students who received university colours at the Colours Awarding Ceremony of the University of Moratuwa in 2021.



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**Communal & Other Events** 

#### **ITUM Diploma Award Ceremony - 2020**



The ITUM Diploma Award Ceremony, 2020 for the conferment of the National Diploma in Technology was held on 23<sup>rd</sup> November 2021 at a glamorous Award Ceremony held at Dr. T.A.G. Gunasekara Multifunctional Hall of the Institute of Technology University of Moratuwa.

343 students from the 2016/2017 batch of students who had completed the National Diploma in Technology from the fields of Chemical Engineering Technology, Civil Engineering Technology, Electrical Engineering Technology, Electronics & Telecommunication Engineering Technology, Mechanical Engineering Technology, Marine Engineering Technology, Nautical Studies, Polymer Technology, and Textile & Clothing Technology, were conferred the Diplomas by Prof. N.D. Gunawardena, the Vice-Chancellor of the University of Moratuwa.









The Inauguration ceremony of the 2020/2021 intake of students to the National Diploma in Technology program of ITUM took place on 25th October 2021 via virtual platform due to the COVID-19 pandemic. The Director of the Institute, Major General (Retd.) S.K. Thirunavukarasu, members of the Board of Management of ITUM, the Deputy Registrar of ITUM, Heads of the Academic Divisions, and the members of the academic staff, Heads, and staff of the Non-academic Divisions of ITUM, and the new batch of students attended the ceremony.

The welcome speech was delivered by Mrs. Mangalika Kannangara, the Senior Students' Counsellor of ITUM and Chairperson of the Inauguration and Orientation Committee, who warmly welcomed the students to the Institute.

Major General (Retd.) S.K. Thirunavukarasu, the Director of ITUM in his speech voiced his regrets for not being able to welcome the new students in person as was traditionally done in previous years and said that he was certain the students would make beautiful memories of their stay at the Institute. He reminded the students that what they do at present would shape their future and hoped that the students would make the best out of their time at the Institute.

The inauguration ceremony was followed by a two-day orientation program organized for the students via virtual platform.



# INAUGURATION CEREMONY & ORIENTATION PROGRAM FOR THE INTAKE 2020/2021

# Feature Article

#### **Developing Communication Skills of Engineering Technology Students**



As prescribed by the ABET Engineering Criteria 2000, communication is one of the 11 key outcomes required of an engineering undergraduate preprogram. In addition, the three engineering education accords: The Dublin Accord for Engineering Technician education, the Sydney Accord for Engineering Technologist / Incorporated Engineer education, and the Washington Accord for Chartered Engineer education too place a high value on communication skills. Accordingly, an engineer is expected to communicate effectively with the engineering community and with society at large, and he/she should be able

Mrs. P.B.T.K. Premarathne English Language Teaching Unit, **Division of Interdisciplinary** Studies, ITUM

to comprehend and write effective reports, design documentation, make effective presentations, and give and follow clear instructions.

In order to be industry-ready upon graduation, an engineering graduate/diploma holder requires a range of skills including the

ability to communicate effectively. As such, to be an effective communicator, it is vitally important to improve all four skills of language learning: listening, speaking, reading, and writing, however, speaking fluency in English is regarded as the key to creating an impression in social and professional settings and

is considered a yardstick for measuring English language proficiency, particularly at job interviews. Therefore, despite possessing a higher level of engineering knowledge, the ability to communicate in English plays a vital role in securing a job.

In the Sri Lankan context, Communicative Language Teaching (CLT) has been practiced in schools since the 1980s and aims at developing the learners' ability to communicate



in English in real-world and academic settings through interaction with one another and the teacher. Contrary to expectations, studies have shown that the teaching styles adopted by most school teachers in rural schools in Sri Lanka do not adhere to the CLT approach and teacher-student interaction takes place entirely in the learners' mother tongue. Further, the teachers are heavily dependent on the English textbooks provided by the Government which do not adequately address the development of listening and speaking skills in the learners, thus resulting in the learners receiving little or no opportunity to develop their speaking skills in the target language. Since English speaking skills receive no evaluation in the school system, there is also no motivation for the learners to develop their communicative competence.

According to Karunaratne (2003), students who enter higher educational institutes from rural schools "show relatively low or limited proficiency in English in general and in oral proficiency in particular". Premawardana (2015) comments that most students "hardly open their mouths in English language class to express their opinions". Hemantha (2006) points out that the university subculture exerts a significant impact on learning English as a second language owing to socio-cultural factors associated with English. For this reason, in many universities, the new entrants are forbidden to utter a single word of English and as a result, even competent speakers try to remain passive and silent during English class for fear of reprisal. English language facilitators in the Higher Educational Institutes (HEIs) thus face an uphill task in developing English speaking skills of learners and are at the receiving end of much criticism amidst widely held condemnation that the products of the Higher Educational Institutes in Sri Lanka, regardless of their technical know-how, very often lack generic skills and the required standard of oral communication skills in English, upon graduation.

Given the above reasons, addressing the second language oral apprehension of engineering undergraduates and diploma students is an area that requires much attention as students need to be prepared for their future careers as global engineers. Most importantly, second language learners need to come to terms with the fact that learning to speak a language is a skill that cannot be achieved overnight like acquiring knowledge in other theoretical subjects.

As the English saying goes, 'Practice makes perfect', students have to put in a lot of hard work, make mistakes and learn from them constantly. Particularly, when learning to speak a second language, it is vitally important to immerse in the language and grab every opportunity to speak in English outside the classroom. Thus a plethora of researchers in many parts of the world advocate motivation to be a strong predictor of successful language learning and lack of learner motivation for language learning will provide little room for improving speaking fluency.

There is no better alternative to developing communication skills than speaking in a social context. However, listening to English songs, speeches, discussions, podcasts, audiobooks, watching English movies and videos with subtitles, listening to English news, reading novels, newspapers etc. will also help in improving English language skills outside the classroom.

All in all, English language facilitators' role is crucial and challenging in supporting students to achieve their learning goals. However, learners need to realize that achieving speaking fluency is hard to come by without constant practice, commitment, and learner motivation.

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