

# University of Moratuwa Bimonthly **UOM** news

2023 July - August Volume: 12 Issue: 04 ISSN: 2279-2023

page 12

RING

page **07** 

**TEXTILE ENGI** 

ST RESEA



Page 02 Research Initiatives, Accomplishments & Disseminations

Page 04 Academic & Industry Collaboration

Page 05 Guest Lectures / Talks

Page 06 Academic Programs

Page 07 Conferences & Symposia

Page 10 Foreign Visits Student Achievements

Page 11 Staff Achievements

Page 12 Exhibitions, Field Trips & Workshops

Page 14 Clubs & Societies

Page 15 Cultural Events Community Outreach Sports

The IntelliSense Lab of the Department of Computer Science and Engineering was declared open on the 26<sup>th</sup> of July 2023, under the patronage of the Vice Chancellor Snr. Prof. Niranjan Gunawardane, and the Lead Academic Expert in the Accelerating Higher Education Expansion and Development (AHEAD) Project Prof. Ms. Thusitha Abeytunga.

The lab was refurbished under the AHEAD funded project "FabVis" for the Development of a Machine Vision based Fabric Quality Inspection System.

Prof. Abeytunga congratulated the IntelliSense Team for their achievement in the FabVis project in obtaining a Patent Cooperation Treaty (PCT) with an International Search Report (ISR) indicating novelty in 100% of its claims.

## Research Initiatives, Accomplishments & Disseminations

International Research Training Event on 'Tackling Climate Change as an Underlying Disaster Risk Driver' at the University of Huddersfield-UK, Funded by ERASMUS+



The Climate Change Adaptation and Disaster Risk Reduction (CCA-DRR) programme coordinated by the Global Resilience Centre (GRDC), Disaster Huddersfield-UK, University of in collaboration with eight Sri Lankan universities, organized a training and networking event to establish a research roadmap on 'Tackling climate change as an underlying disaster risk driver'. The event was held from 26<sup>th</sup> June to 7<sup>th</sup> July 2023 in the UK and three academics from the University of Moratuwa, Prof. Indrika Rajapaksha and Ms. Kalpanee Jayatilake from the Department of Architecture and Prof. Lalith Rajapakse from the Department of Civil Engineering, participated in the

event. The program included a two-day research symposium, guest lectures, a site visit to a flood defence system in the UK and other research training and fellowship events. The most significant output was the development of a research roadmap to achieve climate change adaptation and disaster risk reduction in Sri Lanka focusing on built-environment, human health, transportation, energy, tourism, environment and eco-systems, water resources, food security, agriculture, and livestock sectors through an interdisciplinary collaborative approach. The event was funded by the CCA-DRR project through the ERASMUS+ International Credit Mobility Program.

#### Opening of the IntelliSense Lab of the Dept. of CSE



Furthermore, she acknowledged the team's progress in the national phase entry of the PCT in Vietnam and the significant strides made towards realizing FabVis's full potential for commercialization. The founder and the leader of the lab Dr. Sulochana Sooriyaarachchi appreciated the support of the University Business Linkage (UBL) Cell for extending financial support for the preparation of FabVis for commercialization. The advisors of the IntelliSense team Prof. Chandana Gamage and Prof. Chathura De Silva addressed the gathering and emphasized the strengths of the IntelliSense team with its multidisciplinary blend of members. Dr. Chathuranga Hettiarachchi was also introduced as a member of the senior academics in the IntelliSense team.

The occasion of IntelliSense Lab opening was graced by the Deputy Vice Chancellor Dr. Chandrasekara, the Registrar Mr. Jayantha, the Dean of the Faculty of Engineering Prof. Hemapala, the Director of the UBL Cell Dr. Ajith Pasqual,



the Director of the Center for Open Distance Learning (CODL) Ms. Vishaka Nanayakkara, Director Center for IT Services (CiTes Dr. Sunimal Rathnayake, the Head of the Department of CSE Dr. Uthayasanker and the CEO of Hitech Solutions Pvt Ltd Mr. Buddhika Marasinghe as an industry collaborator of the lab.

#### Research Lounge #14





The 14<sup>th</sup> Research Lounge organized by the Faculty of Graduate Studies with the collaboration of Library, University

of Moratuwa was held on the 18<sup>th</sup> July 2023 in the Boardroom of the Faculty of Graduate studies in hybrid mode.

The Lounge was conducted by Dr. Tiloka de Silva, Senior Lecturer, Department of Decision Sciences, Faculty of Business, University of Moratuwa and Dr. Sandun Dassanayake, Senior Lecturer, Department of Decision Sciences, Faculty of Business, University of Moratuwa. The session was moderated by Dr. Nayani Gunawardena, Senior Assistant Librarian, Library, University of Moratuwa.

The Lounge was successfully completed on the topic Visualizing Data for Impact: Igniting Engagement and Understanding with the attendance of more than 55 research students and academic staff members.

Archive session is available at:

<u>https://youtu.be/6ltbIojlABM?si=dKAslcKN</u> <u>97lKvKJw</u>



Senior academics of CSE, Dr. Thanuja Ambegoda and Dr. Kutila Gunasekara also graced the occasion. The Present and Former Directors of AHEAD OTS of the university Prof. Shantha Fernando and Prof. Sanath Jayasena later joined and extended their well wishes. The chief engineer of the InteliSense Lab Mr. Kalana Rathnayake and his team consisting of Ms. Dilini Dhanushika, Mr. Pathum Fernando, Mr. Thasindu Wickrama and the former members including Mr. Sajith Pallemulla were present and were appreciated for their contributions.

#### **Research Lounge #15**





The 15<sup>th</sup> Research Lounge organized by the Faculty of Graduate Studies with the collaboration of the Library, University

of Moratuwa was held on the 29<sup>th</sup> August 2023 in the Boardroom of the Faculty of Graduate studies in hybrid mode.

The Lounge was conducted by Prof. GD Samarasinghe, Professor, Department of Industrial Management, Faculty of Business, University of Moratuwa and Dr. Isuru Koswatte, Assistant Professor, University of the West of Scotland, United Kingdom. The session was moderated by Dr. Nayani Gunawardena, Senior Assistant Librarian, Library, University of Moratuwa.

The Lounge was successfully completed on the topic Be Empowered with Smart PLS Structural Equation Modelling: A Latent Variable Approach with the attendance of more than 47 research students and academic staff members.

Archive session is available at:

<u>https://youtu.be/FcHwZkWX07Q?si=7KqS</u> <u>PKHxoOmOuX30</u>

#### Research Lounge #18





The Inaugural lecture by Prof. Asanka Rodrigo was held on 22<sup>nd</sup> August 2023 at the board room of Faculty of

Graduate Studies in hybrid mode with 295+ participants.

His inaugural lecture was on the topic of "Facts and Myths of Electrical Earthing: A New Look at an Old Concept" which covers all aspects of research findings of his journey to be a professor. Also at the end of the lecture he introduced himself to the public as a professor and his capabilities to the country and to the university with his academic achievements.

Archive of the lecture is available at:

<u>https://youtu.be/032a-</u> WZQLsI?si=LpZ040llzkn9ikjw

## **Academic & Industry Collaboration**

## Prof. LIN de Silva Visits the Sirindhorn International Institute of Technology (SIIT), Thailand



Prof. LIN de Silva of the Department of Civil Engineering visited the Sirindhorn International Institute of Technology (SIIT), Thailand from 15<sup>th</sup> August to 4<sup>th</sup> September 2023 under the category of staff exchange of the MoU between SIIT and DCE, University of Moratuwa. This is the first item implemented under the above MoU, once the collaboration was initiated in the beginning of the year 2023. During this visit, Prof. LIN de Silva delivered the module "CES391: Special



Topics in Civil Engineering" to the undergraduate students of the SIIT and seek the opportunities for joint research degree programmes with SIIT and UOM. In addition to the above, the opportunities for applying for joint research grants with the collaboration of UOM and SIIT research groups are also explored. SIIT is also interested in collaborating with UoM staff for joint research supervision, cosupervision, split postgraduate programs, external evaluation of postgraduate degrees, UG student exchange programs with credit transfers and applying for joint research grants as well. Further to the above, Prof. LIN de Silva delivered a special lecture titled "Optimization of Dynamic and Vibro Compaction methods for Densification of Reclaimed Lands: a Case Study at the Colombo Port City" for the undergraduate and postgraduate students, and the academic staff at the SIIT.

## Collaborations - Department of Textile and Apparel Engineering and National Olympic Committee of Sri Lanka



In a groundbreaking move, the National Olympic Committee of Sri Lanka made history by conducting its first-ever Team Uniform Design Competition in collaboration with the University of Moratuwa. This competition aimed to select the official team uniform for the Hangzhou 2022 Asian Games.

A distinguished panel of judges, comprising Dr. Ayesha Wickramasinghe, Ms. Prathibani Manthriratne, and Dr. Sumith Gopura, was entrusted with the responsibility of forming strategies for the project, screening its success, evaluation, and selection of winners of this open competition. Dr. Prabod Dharshana Munasinghe coordinated the project from the university's end.

The culmination of this exciting collaboration was marked by a special event held on August 28, 2023, at the Hemasiri Fernando Auditorium of the



National Olympic Committee of Sri Lanka. At this event, the winners of the Team Uniform Design Competition were officially ackowledged , along with the esteemed judges and coordinator who contributed their expertise to the project. This partnership between the National Olympic Committee and the University of Moratuwa not only highlights the significance of integrating fashion into the world of sports but also underscores the commitment of both organizations to fostering creativity and innovation.

It is a proud moment for Sri Lanka as it prepares to showcase its unique team uniform at the prestigious Hangzhou 2022 Asian Games. The National Olympic Committee's foray into this

competition is a testament to its forwardthinking approach and dedication to promoting excellence in all aspects of sports and athletics. This initiative paves the way for future collaborations that bridge the worlds of sports and fashion, creating exciting opportunities for talented designers and athletes alike.

### IronOne Technologies Meetup with Financial Engineering and Risk Management (FERM) Research Lab

IronOne Technologies visited the Department of Computer Science and Engineering, University of Moratuwa to celebrate the recent research success conducted jointly by the Department and IronOne Technologies. The Financial Engineering and Risk Management (FERM) Research Lab of the department conducts a variety of FinTech related research with a focus on Financial Modelling, Financial Data Engineering, Blockchain, Web3 and ESG domains. A



majority of the research are collaborations with the industry. The unit is led by Professor

Indika Perera and Dr. Sapumal Ahangama. During the visit, Ms. Lakmini Wijesundera, the Founder of IronOne Technologies, bestowed a plaque of gratitude to the students (Narada Wijerathna, Jamini Samarathunge, Krishalika Rathnayake, and Supuni Jayasinghe) of the research lab who secured acceptance of the paper titled "Deep Learning Based Personalized Stock Recommender System" at ICONIP 2023: International Conference on Neural Information Processing. The research was conducted as an industry academic partnership between the FERM Research Lab and IronOne Technologies.

## **Guest Lectures / Talks**

## Prof. HR Pasindu Delivers Empowering Tomorrow's Leaders Keynote Speech at 3<sup>rd</sup> ICCIM



Prof. HR Pasindu, one of the esteemed professors in the Department of Civil Engineering at the University of Moratuwa, was honoured as a keynote speaker at the 03<sup>rd</sup> International Conference Construction, Infrastructure on æ Materials (ICCIM), held on 27th of July 2023, in Jakarta, Indonesia. Under the main theme of "Civil Engineering for a Liveable Environment," the conference was organized by the Department of Civil Engineering at Universitas Tarumanagara. Prof. Pasindu's compelling address explored the critical topic of "Low Volume Road Asset Management and Condition Monitoring". His participation added significant prestige to the conference, leaving attendees inspired to explore innovative solutions for enhancing the world's civil engineering landscape.



On July 01, 2023, Level 02 students of the Department of Building Economics, University of Moratuwa, had the privilege of attending an enriching guest lecture titled "Empowering Ourselves." The lecture was conducted by Dr. Chamath Lavinda, MBBS (Colombo), Vice President of Young Professionals' Alliance for Health.

The event, held at the Department Auditorium (Sumanadasa Building) from 9:30 a.m. to 11:00 a.m., focused on equipping students with the tools to face academic and professional challenges with confidence. Dr. Chamath Lavinda shared valuable insights and strategies that will empower these budding professionals as they embark on their academic and career journeys.

This guest lecture exemplifies the Department of Building Economics' commitment to providing students with holistic education, preparing them not only with technical knowledge but also with the skills and mindset needed to excel in their future endeavors. It was a truly inspiring and educational experience for all who attended.

#### Exploring Diaphragm Wall Construction: A Practical Insight for Level 2 Students

Level 02 students of the Department of Building Economics, University of Moratuwa, had a unique learning opportunity on July 04, 2023. They actively engaged in a guest lecture titled "Diaphragm Wall Construction," hosted by Malinda Harischandra, a Senior Quantity Surveyor at Access Engineering PLC. This informative session, held in Lecture Room 5A from 5:00 p.m. to 6:00 p.m., exposed students to the practical applications of construction technology. Malinda Harischandra's expertise provided a hands-on perspective of diaphragm wall construction, allowing students to grasp the real-world complexities and importance of this construction technique. These kinds of experiences bridge the gap between theory and practice, equipping students with valuable insights that will undoubtedly enhance their academic journey and prepare them for successful careers in the construction industry.

### Guest Lecture Explores Augmented Reality in Construction



In a valuable learning experience, Level 04 students of the Department of Building Economics, University of Moratuwa, participated in a guest lecture on "Augmented Reality in Construction." The lecture was conducted by Associate Professor Samad Sepasgozar, Deputy Head of Research and Associate Editor for the Journal of Architectural Engineering at the University of New South Wales, Sydney. This insightful lecture, tailored for finalyear students engrossed in their research projects, provided a deep dive into the applications of Augmented Reality (AR) within the construction industry. Professor Sepasgozar's expertise shed light on the transformative potential of AR, offering students valuable insights into how this technology can revolutionize the field.

The lecture not only enriched the students' understanding but also inspired innovative thinking for their final-year projects. It exemplified the Department's commitment to providing students with cutting-edge knowledge and practical insights that will serve them well as they embark on their professional journeys.

## **Academic Programs**

## PAQS Grants Re-accreditation to BSc Honours in Quantity Surveying Programme





The BSc Honours in Quantity Surveying programme offered by the Department of Building Economics has received resounding approval from the Pacific Association of Quantity Surveyors (PAQS). A distinguished panel, consisting of industry experts, recently conducted a comprehensive review to assess the program's quality.

The esteemed panel members included Mr. Goh Ngan Hong from the Singapore Institute of Surveyors and Valuers (SISV) as the Chair, Ms. Nor Ainah Abdullah from the Royal Institution of Surveyors Malaysia (RISM), Ms. Wong Yi Min from the SISV, and Ch.QS Upul Shantha from the Institute of Quantity Surveyors, Sri Lanka (IQSSL). During their visit, the panel meticulously evaluated study materials, student assignments, and the state-of-the-art infrastructure facilities. Additionally, they engaged in productive discussions with students to gather their valuable insights regarding the program's quality and the effectiveness of lectures.

This re-accreditation underscores University's unwavering commitment to maintaining excellence in its Quantity Surveying program, ensuring that students receive a top-tier education that aligns with international standards. It's a testament to the university's dedication to producing highly skilled and competent professionals in the field of Quantity Surveying. Successful Revalidation Visit by IQSSL Panel Ensures Quality in Quantity Surveying Degree Programme



On August 10, 2023, a significant event marked the commitment of the University of Moratuwa towards maintaining excellence in education as a panel representing the Institute of Quantity Surveyors, Sri Lanka (IQSSL) conducted a rigorous revalidation visit for the Quantity Surveying Degree Programme within the Department of Building Economics.

The distinguished panel featured Ch.QS Upul Shantha, Ch.QS (Mrs.) Champa Liyanage, and Ch.QS Russel Cooray, all esteemed members of IQSSL. Their visit encompassed crucial aspects, including meetings with senior staff members, providing an avenue for insightful discussions and knowledge exchange.

Furthermore, the panel engaged directly with students to gain valuable insights into their perspectives on the program,



fostering a collaborative approach to program enhancement. They meticulously reviewed program documents to ensure alignment with industry standards and best practices.

The feedback provided by the IQSSL panel will play a pivotal role in further elevating the quality of education. This successful revalidation visit reaffirms the university's dedication to nurturing highly skilled and industry-ready professionals in the field of Quantity Surveying, ensuring they are well-prepared to excel in their careers.

# 40 Years of Excellence: Celebrating a Milestone of the Department of Building Economics



On August 27<sup>th</sup> 2023, the Department of Building Economics commemorated a significant milestone - its 40<sup>th</sup> anniversary. Established in 1983 under the visionary leadership of Prof. HPS Caldera, the department's humble beginnings with 18 students have blossomed into a thriving community of 152 students today.

In 2023, the department celebrated its 37th year of offering the Quantity Surveying

(QS) degree program, a testament to its enduring commitment to educating future industry leaders. Since its inception, the department has proudly produced approximately 1800 QS graduates and 600 Facility Management (FM) graduates. Many of these accomplished alumni now hold influential positions both in academia and industry, underscoring the department's lasting impact.

The anniversary event was a grand affair, attended by enthusiastic alumni. The festivities included a formal function and a heartwarming get-together for alumni and their families. Food stalls and fun games added to the jubilant atmosphere, making it a memorable celebration of 40 years of excellence in education and the remarkable achievements of its graduates.

## **Conferences & Symposia**

## Textile Engineering Research Symposium 2023 (TERS2023)

[From Cover page]



"TERS 2023." the inaugural Textile Engineering Research Symposium organized by the Department of Textile and Apparel Engineering at the University of Moratuwa, made a historic debut on August 31, 2023, at the New Auditorium of the Department of Textile Engineering. The symposium was dedicated to showcasing the final year undergraduate research projects of the textile engineering graduands of the 2018 intake and the textile engineering graduates of the 2016 and 2017 intakes. The symposium commenced with a welcome address



delivered by the Head of Department, Eng SN Niles, followed by insightful speeches from Dr. DP Chandrasekara, the Deputy Vice Chancellor, and Prof. KTMU Hemapala, the Dean of the Faculty of Engineering. The introductory remarks were delivered by the symposium chair, Dr. Gayani K Nandasiri, providing valuable context to the symposium proceedings. During her address, she expressed gratitude to the symposium committee for successfully organizing TERS 2023, extending a special thanks to Ms. Hansika Medagedara, Ms. Maadri Pathirana, Ms. Chamika Madhurangi, and Mr. Charuka Karunaratne for their contributions. Dr. Nandasiri also extended her appreciation to Twinery Innovations by MAS and MAS Capital for their generous funding of the event. The keynote speech was eloquently delivered by Ms. Sithila Dassanayake, Director of Technology



Innovation at Twinery innovations by MAS , whose address on "Innovation in Textiles" provided valuable insights into the continuously evolving field of textile engineering. The highlight of the symposium included the poster presentation segment, wherein attendees had the opportunity to interact with the presenters and engage in discussions about the latest research findings. The 3MT presentation challenge added an extra layer of excitement, in which the contestants presented their research in under three minutes.



The event reached its conclusion with the announcement of winners across multiple categories, including the best 3-minute presentation video, the best poster, the 1<sup>st</sup> runner-up for the best poster, the 2<sup>nd</sup> runner-up for the best poster, and the best poster in the popular choice category. The winners were duly recognized and rewarded with both cash prizes and certificates.

### Materials Engineering Symposium for Innovations in Industry - MESII 2023



The 06<sup>th</sup> Materials Engineering Symposium for Innovations in Industry – MESII 2023 was successfully held on July 28, 2023, at the Department of Materials Science and Engineering, attracting a diverse audience comprising industry representatives, academia, and students.



The event served as a platform to showcase the final year projects of the students of intake 2018 to the Department of Materials Science and Engineering, featuring poster presentations and oral sessions. Notably, attendees, including prominent figures from academia and industry, engaged in comprehensive technical discussions, yielding valuable insights and opportunities for collaboration.

A distinguishing feature of MESII-2023 was the thematic organization of posters and oral presentations, which spanned four key areas: energy and environmental sustainability, advanced materials and processes, computational materials engineering, and biomedical materials engineering. These thematic categories provided a structured framework for attendees to delve deeper into specific facets of materials science, sparking enlightening discussions and debates.

A noteworthy highlight was the spotlight placed on research projects that underscored the potential for value addition to Sri Lankan resources. These projects gained substantial attention and ignited discussions on harnessing local resources for global innovation, thereby enhancing the nation's standing in the international materials engineering arena. Also, Participants engaged in robust conversations on how to bridge the gap between groundbreaking research and practical applications in industry.

The symposium also had the distinct honor of hosting esteemed dignitaries, including Mr. Chandima Samarasinghe, Chief Operating Officer at DIMO Lanka Pvt Ltd, who graced the event as the chief guest. Dr. DP Chandrasekara, Deputy Vice-Chancellor of the University of Moratuwa, and Prof. KTMU Hemapala, Dean of the Faculty of Engineering, added their distinguished presence to the occasion. These notable figures addressed the gathering, emphasizing the critical role of collaboration and innovation in advancing the field. Additionally, the Head of the Department, Mr. V Sivahar, shared his insights, further enriching the symposium experience.

MESII 2023 also received generous sponsorship support, with Twinery by MAS stepping in as the platinum sponsor and Lanka Tiles Plc contributing as the bronze sponsor. The symposium showcased innovation and learning in materials engineering, paving the way to strengthen the industry-university relationship, and leading to future industry collaborations in the realm of materials science and engineering.

# Department of Building Economics Partners with Ceylon Institute of Builders (CIOB) for Successful 11<sup>th</sup> World Construction Symposium and Green Awards Night



The 11<sup>th</sup> World Construction Symposium 2023, themed "Accelerating Sustainability in the Built Environment: Policies, Practices, and Perspectives," was an exceptional collaboration between the Building Economics and Management Research Unit (BEMRU) at the University of Moratuwa and the Ceylon Institute of Builders (CIOB). This hybrid symposium, held on July 21-22, 2023, defied challenges and showcased remarkable achievements. With a legacy of indexing full papers in SCOPUS since 2019, this symposium was a beacon of international cooperation. It featured 91 diverse papers authored by global experts, covering 20 sub-themes in construction sustainability. A panel discussion, "Constructing Renaissance in Construction," engaged prominent figures from academia and industry. Following the symposium, the celebration continued with the Green Awards Night at the Galadari Hotel Colombo on July 22<sup>nd</sup>. This event not only recognized the outstanding contributions of award winners but also reinforced the CIOB's commitment to promoting sustainable practices and fostering positive change within the construction sector.



The symposium's culmination celebrated excellence with awards such as the BEPAM Best Paper Award and CIOB Best Paper Award. Highly Commended Paper Awards recognized outstanding contributions to sustainable construction research.This success was possible due to collective dedication, with special thanks to Ceylon Institute of Builders, associate partners, and the University of Moratuwa. Authors, scientific committee members, and panelists demonstrated unwavering commitment to advancing sustainability in the built environment. The partnership between CIOB and the University of Moratuwa continues to drive sustainable construction practices, shaping a more prosperous future for Sri Lanka's construction industry.

## 7<sup>th</sup> International Symposium on Earth Resources Management and Environment (ISERME 2023)



The 7<sup>th</sup> International Symposium on Earth Resources Management and Environment (ISERME 2023), organized by the Department of Earth Resources Engineering at the University of Moratuwa, Sri Lanka, and technically co-sponsored by Hokkaido University, Japan, was successfully held on August 28, 2023, at the Prof. Rupert Peris Auditorium, University of Moratuwa.

Under the theme of "Earth Resources Management and Environment," this event attracted distinguished participants from various academic, industrial, and research backgrounds, including academics, students, industry leaders, alumni, and well-wishers. The event was graced by Emeritus Professor UGA Puswewala as our esteemed Chief Guest, along with the esteemed keynote speaker, Dr. Yogarajah Elakneswaran, Associate Professor in the Division of Sustainable Resources



Engineering at Hokkaido University, Japan.

We extend our deepest gratitude to our generous sponsors and supportive institutions, whose financial backing and dedication breathed life into this event. Furthermore, we extend our heartfelt thanks to the diligent members of the organizing committee and the technical program committees for their unwavering dedication in ensuring the success of ISERME 2023.



## **Foreign Visits**

### Visit by Delegates from Shanghai University of Sports, China



Mr. Cao Guoxinig and Mr. Huang Jain Jun of Shanghai University of Sports, China visited University of Moratuwa on 15<sup>th</sup> August 2023. The team of the delegation had a discussion with Prof. Gamini Lanarolle. Director. International Relations. Dr. NGR Perera, Chairman, Sports Advisory Board, Mr. GL Wijesuriya, Acting Director, Physical Education Division and Ms. YS Karunarathne, Assistant Registrar, External Affairs, Publicity and International Students Promotion Division on establishing collaborations between the two universities, especially in the areas of student exchange.

## **Student Achievements**

MPhil Candidate Mr. Dilshan Poorna Hedigalla and his Team Present their Research at TIWC2023, at University of Huddersfield, UK



The 92<sup>nd</sup> Textile Institute World Conference (TIWC2023) was hosted by the Department of Fashion and Textiles in collaboration with the Technical Textiles Research Centre (TTRC) of the University of Huddersfield, United Kingdom. The conference was held from July 3<sup>rd</sup> to July 6<sup>th</sup>, 2023: this four-day conference stood as a significant milestone in the realm of textiles and innovation. The MPhil candidate Mr. Dilshan Poorna Hedigalla,



at the Department of Textile and Apparel Engineering, University of Moratuwa with his research team, comprised of, Mr. Malindu Ehelagasthenna, Dr. Indrajith D Nissanka, Prof. Ranjith Amarasinghe, and Dr. Gayani K Nandasiri, had the opportunity of presenting the research paper, titled "A neural network approach for predicting optimum design parameters for an active compression textile." The acceptance of our paper at this esteemed event underscored the dedication and diligence invested in our research. Mr. Malindu Ehelagasthenna: a member of the research team, had the opportunity to present at TIWC2023, encapsulating our collective efforts to advance the textile and technology landscape. The conference provided a dynamic platform for textile enthusiasts, researchers, and industry experts worldwide to exchange

ideas, insights, and pioneering innovations. TIWC2023 at the University of Huddersfield convened brilliant minds within the textile industry, and we were privileged to contribute our research to this global discourse, with our work in the domain of active compression textiles, furthering the impact of our research in the years to come. "Team Mora" from the Dept. of CSE Represents Sri Lanka at the ABU Robocon 2023 in Cambodia



Team Mora, comprising Supun Gamlath, Chathura Gunasekara, and Isuru Gunarathne from Batch 2020 of the Department of Computer Science and Engineering of the University of Moratuwa, represented Sri Lanka at ABU RoboCon 2023. The event took place in Phnom Penh, Cambodia from the 25<sup>th</sup> to 29<sup>th</sup> of August 2023. Notably, this is the first ever participation of the CSE department at this prestigious robotics competition in the Asia Pacific region.

The RoboCon competition is organized annually by the Asia Pacific Broadcasting Union (ABU) aimed at collaboration and the promotion of broadcasting in the region. Fourteen teams representing 13 countries including Japan, China, Hong Kong, Nepal, and India competed in RoboCon 2023. Team Mora was selected after a national competition based on proposals by the



Independent Television Network (ITN) and a tedious screening process by the Tokyo Secretariat of ABU based on video footage of robot functionalities at tight deadlines.

IntelliSense Lab provided technical support during the team's preparation within a short period of about two months. Key individuals involved were Mr. Kalana Rathnayake, Ms. Dilini Dhanushika,



Mr. Thasindu Wickrama, Mr. Pathum Fernando, Mr. Sanjaya Pathirana, and Mr. Sanjaya Sooriyaarachchi. The team was mentored by Dr. Sulochana Sooriyaarachchi, who was present with the team in Cambodia during the competition. Expertise was also sought from Dr. Chathuranga Hettiarachchi and Prof. Chandana Gamage in the preparation of the robots leading up to the competition.

## **Staff Achievements**

#### Book Launch - Bolgoda Ecosystem: A Selected Bibliography



"The Bolgoda Ecosystem – A Selected Bibliography" is a platform that connects both published and unpublished scholarly work related to the Bolgoda region until the end of the year 2022. It presents a variety of selected references available via search engines, electronic databases, institutional repositories, catalogues with online public access, shadow libraries, etc. organized under 12 categories. This delicately groomed compilation also consists of an Author Index, Corporate Author Index, Subject Index and Title Index for the convenience of referencing.

Bolgoda is the largest natural freshwater lake embedded to a widespread wetland system in the Western Province of Sri Lanka. It is considered as "one of the first wetland cities in the world by Ramsar Convention Secretariat" in 2018 and also been listed in the "1001 Natural Wonders of the World: you must see before you die", published in 2017 by Michael Bright (Ed.) due to its ecological, social, and economic significance. Unfortunately, Bolgoda has also been included in the "Threatened Lakes of the Year 2018" by Global Nature Fund (2022). Undoubtedly being a natural laboratory with unlimited access and opportunities for those with a scholarly interest, Bolgoda is a welcome prospect for neighbouring academic entities to explore and develop an awareness of much of the unseen, untouched or continuously neglected elements. Therefore, this bibliographic compilation is a timely product to facilitate the continuation of scholarly developments with accountable links to the past, for an environmentally sensitive region which has been diversely utilized. The Bolgoda Ecosystem is a compilation by Dr. Chulantha Jayawardena, a Senior Lecturer from the Department of Earth Resources Engineering and Thushari Seneviratne. Senior Ms. Assistant Librarian from the University of Moratuwa Library. The bibliography is an outcome of the attempts made by them to find information on Bolgoda and its associations to construct an article for the Bolgoda Plains Research Magazine published by the Faculty of Graduate Studies of the University of Moratuwa. Hence, on 24 July 2023, the first copy of the book was presented to Prof. Ajith de Alwis the Dean, the Faculty of Graduate Studies, who initiated the Bolgoda Plains Research Magazine and also motivated the compilers towards publishing the book.

Dr. Prabod Dharshana Munasinghe wins the 2023 Emerald Literati Award [From Cover page]



OUTSTANDING PAPER



In a remarkable achievement, Dr. Prabod Dharshana Munasinghe, a senior lecturer in the Department of Textile and Apparel

Engineering, has been honoured with

the Outstanding Paper award at the 2023 Literati Awards. His award-winning article, titled "An Investigation of the Mass-Market Fashion Design Process," was published in the esteemed Journal, Research Journal of Textile and Apparel.

This recognition holds special significance as Emerald celebrates the 30<sup>th</sup> anniversary of its Literati Awards, which commends outstanding contributions from authors and reviewers. The criteria for the Outstanding Paper award underscore research that transcends academia, creating tangible real-world impact and introducing novel insights into the realm of knowledge. It considers excellence in structure and presentation, the rigour of argumentation or analysis, relevance, and the elusive "x-factor" that sets exceptional papers apart from the rest.

Dr. Munasinghe's recent completion of a Split Site PhD program, undertaken jointly at the University of Moratuwa and the University of Surrey in the United Kingdom, adds to the prestige of his achievement. His research endeavours aimed to develop a toolkit empowering mass-market fashion designers to incorporate environmental improvements into their processes. The award-winning article represents a significant outcome of his doctoral research. It's worth noting that Dr. GDK Dissanayake, a former senior lecturer at the University of Moratuwa, and Prof. Angela Druckman of the University of Surrey, United Kingdom, played pivotal roles in supervising the study and co-authoring the award-winning article. Dr. Munasinghe's recognition at the Literati Awards not only highlights his dedication and expertise in the field of textile and apparel engineering but also underscores the importance of research with a practical, real-world impact. Congratulations to Dr. Prabod Dharshana Munasinghe on this well-deserved honour!

## **Exhibitions, Field Trips & Workshops**

#### EXMO 2023 - Technological Exhibition of the University of Moratuwa

#### [From Cover page]



EXMO 2023, the flagship technological exhibition of the University of Moratuwa, took place on 27<sup>th</sup>, 28<sup>th</sup>, and 29<sup>th</sup> July 2023. The Faculty of Engineering in collaboration with the Faculties of Architecture, IT, Business and Medicine, of the University of Moratuwa organised EXMO 2023, an extraordinary technological exhibition aimed at fostering stronger connections between faculty, industry, and society. Dr. Indika De Silva served as the Chairman of the Exhibition Committee which comprised academic staff members and students from all faculties, and members of UOM Alumni association. As a prominent contributor to the technological advancement of the nation, the UOM bears the responsibility of showcasing the innovative ideas of its talented undergraduates to the wider community and raising awareness about emerging technologies. This exhibition served as a testament to the commitment of all faculties towards development within the

country, inspiring the local community and sparking conversations about the latest trends in the field.

The exhibition also included a series of educational sessions aimed at enhancing the technological knowledge of school students, undergraduates from various universities, and the public. These sessions were conducted by industry experts, university lecturers, and enthusiastic undergraduates themselves, offering valuable insights into the latest trends and advancements in the field of technology. By opening this knowledge-sharing platform, the exhibition aimed to empower attendees with a deeper understanding of emerging technologies and their potential impact on society. EXMO 2023 was not only a celebration of innovations and academic achievements but also a unique opportunity for the public, students, and undergraduates from other universities to engage with the fascinating world of technology.



## TTT Workshop on e-Learning and PBL Pedagogy - UOM



TTT Workshop on e-learning and PBL pedagogy was held at UOM on August 31<sup>st</sup>, 2023. UOM hosted this transformative workshop on the integration of e-learning and Problem-Based Learning (PBL) pedagogy. The primary focus was to shed light on the dynamic landscape of online teaching methods and the innovative use

of technology in facilitating problem-based learning approaches. Throughout the day, participants delved into an extensive exploration of e-learning platforms that have become integral to modern education. Each university representative offered a unique perspective on their respective approaches, emphasizing the pivotal role of platforms such as Moodle and LearnOrg in fostering a conducive learning environment. These discussions unveiled the seamless processes involved in managing and conducting online education. One of the central themes that resonated throughout the workshop was the active encouragement of students to harness technology as a powerful tool for their educational journey. Presenters shared strategies and best practices on how to motivate students to leverage these online platforms for enhanced learning experiences. This included insights into the functionality of these platforms and their capacity to facilitate various academic

a nexus for sharing successful e-learning strategies, thereby paving the way for collaborative endeavors in the realm of education. It emphasized that e-learning is not just a medium for content delivery but a holistic approach to modern pedagogy. By promoting interactive and student-centric learningthrough these platforms, educators can empower their students to become self-directed learners, critical thinkers, and problem solvers. In conclusion, the Workshop was a pivotal moment in the evolution of pedagogy. It highlighted the profound impact of e-learning platforms and their ability to facilitate Problem-Based Learning, ultimately reshaping the way we approach education in the digital age. The insights and experiences shared during this workshop serve as a testament to the ongoing commitment of educational institutions to provide quality learning experiences in an increasingly online world.

tasks with ease. The workshop served as

## Final-year Undergraduates of the Department of Transport Management and Logistics Engineering Visit Nestle Factory, Kurunegala and Upali Mills (Pvt) Ltd, Marawila

Smart Phone Positioning System Workshop



Final-year undergraduates of the Department of Transport Management and Logistics Engineering visited Nestle Factory, Kurunegala, and Upali Mills (Pvt) Ltd, Marawila, on 28<sup>th</sup> April 2023. During the field visit to the Nestle factory, students had the opportunity to delve into the entire supply chain of coconut milk production, starting from receiving coconuts to delivering coconut milk to the factory. They also had an opportunity to explore the distribution center and warehouse of Nestle, where they observed the efficient management of inventory and logistics operations to ensure the timely delivery of coconut milk to the Nestle factory. The visit provided students with a comprehensive understanding of the coconut milk production supply chain and the intricacies involved in transforming coconuts into the final product consumed by consumers worldwide.



The "Smart Phone Positioning System Workshop," comprising a part of the Erasmus+ Capacity Building in Higher Education (CBHE) LBS2ITS project, was successfully conducted from 28th to 30th, August 2023, at the Faculty of Technology, University of Sri Jayewardenepura. The main goal of this three-day workshop was to enhance the educational programs of Sri Lankan universities by providing training on smartphone positioning methods for both indoor and outdoor location tracking. Leading experts such as Prof. Vassilis Gikas, Dr. Jelena Gabela, and other academic professionals from European universities played crucial roles as instructors during the workshop. Participants from the University



of Sri Jayewardenepura, University of Moratuwa, Sabaragamuwa University of Sri Lanka, and General Sir John Kotelawala Defence University (KDU) had the valuable opportunity to gain insights into the latest advancements in Smart Phone Positioning, GNSS data processing, and WiFi-based positioning techniques through practical learning sessions.

Figure 1- LBS2ITS Project Team at Faculty of Technology, University of Sri Jayewardenepura On the first day's morning session, two theoretical lectures delved into essential subjects: 'Foundations of Smartphone Positioning' and 'Smartphone Sensors.' These lectures

## **Clubs & Societies**

## In an Exclusive Member Awareness Program



In an exclusive member awareness program organized by the UMTA - EXCO on July 20th, 2023, the Agrahara insurance scheme was introduced to esteemed members. The event took place at the Multipurpose Lab, Faculty of IT, with more than 30 members participating both physically and online. Dr. Nadeeka Jayaweera, as the main organizer, played a significant role in orchestrating and managing the event. The program aimed to provide comprehensive information about the scheme's benefits and guide attendees through the application process. Expert speakers engaged with a diverse audience, discussing the various advantages of the insurance scheme and addressing questions and concerns raised by participants. The program emphasized the simplicity of the application process and

covered a range of topics, including GNSS, INS, Magnetometer, Lidar, UWB, Camera, and more. In the afternoon session, there was a meeting to discuss curriculum development, followed by two hands-on sessions. These practical sessions involved collecting GNSS data and processing it. During these sessions, participants used smartphones equipped with mobile applications like GNSS Viewer and GNSS Logger for data collection.

In the afternoon session, there were three components: a meeting to discuss curriculum development and two handson practical sessions. These practical sessions involved both the collection and processing of GNSS data. Participants used smartphones equipped with mobile applications like GNSS Viewer and GNSS Logger for the data collection process. The second day kicked off with a lecture covering the basics of Wi-Fi Positioning, the practical uses of fingerprinting, and the principles behind Wi-Fi Positioning, which was delivered by Professor Vassilis Gikas and Mr. Manos. Following that, Mr. Jenan Rajavarathan, representing Sabaragamuwa University of Sri Lanka, gave a lecture on the integration of GAGAN with mobile phones and the improvements made to GAGAN's functionality on mobile devices. Afterward, Dr. Pasan Maduranga from General Sir John Kotelawala Defense University (KDU) presented a lecture on Indoor Localization using Machine Learning Techniques. This lecture covered the fundamental concepts of Machine Learning and its application in the context of Indoor Localization. The second day of the workshop concluded with a presentation on Lidar 3D scanning using an iPhone, delivered by Mr. Niroshan Sanjaya from the University of Moratuwa. The third day of the workshop was primarily dedicated to practical sessions, which included covering the basics of QGIS, mapping with smartphones, and analyzing the collected data using QGIS. Finally, the closing session was conducted by Dr. Jelena Gabela and Dr. Choolaka Hewawasam, where they provided a recap of the course and delivered closing remarks.

## Exploring Real-World Applications: Field Trip Enriches Quantity Surveying Students



As a dynamic learning experience, Level 01 Quantity Surveying students from the Department of Building Economics embarked on a field expedition on August 13<sup>th</sup> and 14<sup>th</sup>, 2023. Their journey led them to the picturesque locations of Kandy, Randenigala, and Mahiyanganaya.

During this enriching excursion, students gained invaluable insights into real-world construction and infrastructure projects. They had the privilege to visit the Hill Top Hotel construction project in Kandy, where

the inclusive nature of the scheme, catering to the diverse needs of members. With a commitment to the well-being and security of its members, the UMTA-EXCO plans to extend online resources and assistance for those who were unable to attend this event physically, ensuring wider access to this valuable insurance program. they witnessed the intricacies of on-site construction processes. Additionally, their visit to the Randenigala Dam and power station provided a firsthand understanding of large-scale infrastructure management.

The knowledge acquired during this field expedition will serve as a solid foundation for their academic endeavors, bridging the gap between theory and practice and nurturing the future leaders of the Quantity Surveying field.



# "Civil Cric Fiesta – 2023" by the Civil Engineering Society of the Department of Civil Engineering Cultural Events



The annual cricket tournament of the Department of Civil Engineering, "Civil Cric Fiesta - 2023" was held on the 26<sup>th</sup> of August 2023 from 09.00 am onwards at the university playground. This event was organized by the Civil Engineering Society (CES) of the University of Moratuwa, and provided an excellent opportunity for the academic/non-academic staff and the students of the Department of Civil Engineering to have a break from their daily routine to re-energize and enjoy themselves.

The event was inaugurated with the participation of the students and the academic staff, including Prof. (Mrs.) Chintha Jayasinghe (Head of Department), Dr. Pasindu Weerasinghe (Senior Treasurer of CES) and Dr. Sampath Hewage (Staff Advisor of CES). The champions and winners of the tournament comprised teams from the 19<sup>th</sup> batch. The event was concluded with a memorable awards ceremony, leaving everyone with cherished memories.

## **Community Outreach**

## TCP Students to Enhance the Quality of Urban Environment in Badulla in their Spatial Planning and Design Studio Project



The level o2 students of the BSc in Town and Country Planning honours degree programme successfully completed the Urban Planning & Design Studio on Badulla Town. This studio project is the first of a series of studio projects that the students would be completing throughout the course program and in this program, they would learn the methods and techniques of comprehending an urban area, its people, behavioral pattern, functional order, apparent and hidden potentials, and the issues arising from the inevitable growth of the town, natural hazards, socio-political changes, etc.

Studio-Based Learning (SBL) is a studentcentered educational method that has been popularly adopted in design schools around the world. SBL extends beyond the passive learning styles typically available in a university classroom or lecture hall. Students can also participate in iterative hands-on experimentation followed by reflection with SBL. Students attended a 05day field visit to Badulla town and engaged in field observations, organized workshops, stakeholder consultations and working with communities. Representatives from the main accreditation body for the degree program, the Institute of Town Planners of Sri Lanka, who attended the final examinations, praised the students' efforts and creative approach towards understanding and addressing the challenges in Badulla town.This studio project was designed, guided, and tutored by Prof. Jagath Munasinghe, Dr. Chethika Abeynayake, Dr. Chathura De Silva and Plnr. Eshi Wijegunarathne.

## 11<sup>th</sup> Edition of the Purawara Rangamadala Drama Festival

The 11th edition of the Purawara Rangamadala Drama Festival, organized by the department of Town and Country Planning together with the Town and Country Planning Students Society (TCPSS), was held at the JG hall on 20th July, 2023. The initial training for this activity was provided through the Drama (PL2309) module. The level 02 students from the 2021-25 cohort staged this year's drama festival. The late veteran artist Bandula Vithanage provided direction and encouragement for the Purawara Rangamadala tradition as it became a reality in 2013. Last year, a radio drama festival was held under the Covid 19 restrictions. The Purawara Rangamadala facilitates cultural integration and broad networking among the university community.This year's drama festival featured four stage performances that drew a packed house. The overall production was led and directed by Ms. Kaushalya Fernando, a veteran artist in Sri Lankan theatre and cinema, with assistance from Mr. Nilanka Dassanayake, Mr. Sanjaya Hettiarachchi, and Mr. Mayura Kanchana. The drama module and the Purawara Rangamadala festival were coordinated by Dr. Chathura De Silva and Mr. Niroshan Sanjaya with the support of Prof. Jagath Munasinghe. The department wishes to thank all who helped to make the festival a success.

## **Sports**

#### Our Slicers Become 01st Runners-up



The Annual State Services Carrom Tournament was held at the Carrom Federation of Sri Lanka on 27<sup>th</sup> and 28<sup>th</sup> June and 06<sup>th</sup> July 2023. The Staff Welfare and Recreation Club of the University of Moratuwa team comprising Mr.Chanaka, Mr. Chathura, Mr. Pubudu, Mr. Guluvita and Mr.Suneth became the OI<sup>st</sup> runnersup in the Division "B" category. This tournament is annually held under three divisions, namely A, B and C with the participation of many state organizations.

#### **ADVISORY BOARD**

Dr. DP Chandrasekara (Chairman) Professor KTUM Hemapala Professor. (Mrs) BMWPK Amarasinghe Professor. GD Samarasinghe Professor: YG Sandanayake Professor: R Fernando Mr. BH Sudantha Mrs. Ruvini Kodikara Archt. Sithumini Rathnamalala

#### **EDITORIAL BOARD**

Mrs. Ruvini Kodikara Professor. (Mrs) DA Meedeniya Professor. GD Samarasinghe Dr. (Mrs) SSMR Samarawickrama Mr. Sanath Gunawardena Mrs. Thushari M Seneviratne Dr. Niroshan Lokunaragoda Ms. Chathurangi De Silva

University of Moratuwa

Bimonthly **UOM** news

2023 July - August Volume: 12 Issue: 04 ISSN: 2279-2023

#### **NEWS TO BE SENT TO**

Library University of Moratuwa Katubedda, Moratuwa, 10400 Sri Lanka E-mail: melromendis@gmail.com info@lib.mrt.ac.lk

Editor	: Mr. Sanath Gunawardena
	[E-mail: sanathg@uom.lk]
Published by	: Library
	University of Moratuwa
Page Layout	: Mr. BMS Mendis



ISSN 2279-2023