

Annual report – Skyline (department of civil and architectural engineering)

Academic Year 2023-2024

List of Outreached Activities Conducted:

1. Skyline Association of BITS-Pilani, Dubai Campus, in collaboration with LINQ Modular, organised an educational visit to LINQ Modular, the GCC's largest modular facility. LINQ Modular's off-site modular construction process is truly remarkable, and witnessing it first hand was eye-opening. The students discovered the engineering excellence behind some of the Gulf region's famous infrastructure projects, utilizing prefabricated prefinished volumetric construction (PPVC) as a structural system on 21st September 2023



2. Guest Lecture on 'the use of state-of-the-art Structural Health Monitoring equipment in groundbreaking Middle East infrastructural projects and the invaluable data it has generated, potentially revolutionizing the field.' By Mr. Amit Ranjan, General Manager, and Mr. Vikas Vishwakarma, Deputy General Manager of Encardio Rite – 25th September 2023



3. Dr. Deepthi Mary Dilip conducted a workshop on 'Navigating the Future: Smart City Traffic Simulation' on 9th November 2023 for budding students of Grades 9 to 12. Refer poster below:

 **Department of Civil Engineering**
BITS-Pilani, Dubai Campus presents

Navigating the Future: Smart City Traffic Simulation Workshop

In today's world of self-driving cars, electric vehicles, and shared transportation, city and transportation engineers constantly face unique challenges when dealing with traffic congestion.

Learn to create a virtual simulation that mirrors the daily traffic in your city, which is the first step to smarter cities that can harness the data from self-driving vehicles.

 4th November 2023 (Saturday)
 9 AM to 3 PM
 CAD Lab, Civil & Mechanical Block

Open to students of **Grades 9 - 12**
Pre-register soon!
Limited slots available on a first come first serve basis!



To register, click the link or scan the QR code:
<https://forms.gle/WnCNa2rq7cpDM4wF6>

Contact: Dr. Deepthi Mary Dilip
deepthimary@dubai.bits-pilani.ac.in



4. Skyline Association of BITS-Pilani, Dubai Campus, in collaboration with EVERSENDAI, organised an educational site visit to [EVERSENDAI](#)'s Steel Fabrication Yard at Al Hamriya, Sharjah. Students were exposed to multiple aspects of steel structures, starting from design, procurement, fabrication and assembly on 5th March 2024



5. Guest Lecture on 'MODERN METHODS OF CONSTRUCTION' by Mr. [Alessandro Marzucchini](#), Senior Associate and MMC Lead, [Ramboll](#). On 12th March 2024.



6. Students of the Skyline Association of the Department of Civil Engineering put on an intriguing display of traditional and emerging areas of the field in a fun and effective way at STEM@BITS 2023, Theme based on multiple aspects of civil and architectural engineering to the general public in UAE. - on March 23rd 2024.



7. Skyline Association of BITS-Pilani, Dubai Campus organized "THE SPAGHETTI BRIDGE BUILDING" Competition - Creating bridge infrastructures, one strand at a time!; on 1st and 2nd may 2024 - a one-of-its-kind program in UAE for budding civil engineers from Grades 9 to 12 in schools and university students as an introduction to this diverse field. Students were not only exposed to the science of building bridges, but were also provided an opportunity to participate in a unique bridge modelling competition. Additionally, the students were introduced to the basics of computational design of trusses, and the multifaceted scope of civil engineering.



8. Guest lecture by Mr. Sachin Gupta, Principal Design Engineer of Jacobs Engineering, one of the top consultancy companies in the UAE. Topic was "**Design, Fabrication, and Installation of the Steel Bridges of Length 72m on Etihad Rail**" on 28th April 2024



Learnings:

- **State-of-the-Art SHM Technology:** Insights into the latest technologies employed in SHM, which play a critical role in ensuring the safety and longevity of infrastructure.
- **Data-Driven Innovation:** Understanding how the invaluable data generated through SHM systems can revolutionize structural engineering by enabling predictive maintenance and informed decision-making.
- **Applications in Major Projects:** A glimpse into how these advanced tools have been utilized in some of the region's most significant projects, showcasing the practical implementation and benefits.
- **Impact on the Field:** Exploring the potential transformation of civil and structural engineering practices driven by such cutting-edge monitoring solutions.