



TKM

Institute of Technology



(Approved by AICTE, New Delhi & affiliated to Kerala Technological University)
Musaliar Hills, Karuvelil P.O., Ezhukone, Kollam - 691505, Kerala, India
Phone : +91 474 2482833, +91 474 2482083 Fax : +91 474 2483715
E-mail : principal@tkmit.ac.in Website : www.tkmit.ac.in



REPORT ON SCTIMST ONE DAY INDUSTRIAL VISIT

Venue: Sree Chitra Tirunal Institute for Medical Sciences and & Technology

Date: 4th December, 2023

Poster:

Description

A one-day industrial visit was organized by the Department of Biomedical Engineering, in collaboration with IEEE SB TKMIT and IEEE EMBS TKM IT on 4th December, 2023, which provided a valuable opportunity for fifth semester biomedical engineering students to gain practical insights into cutting-edge biomedical technologies. One of the highlights of the visit was the exploration of the Cardiac Device

Laboratory, where students witnessed groundbreaking advancements and innovative solutions, including stents for heart valves and artificial heart valves, offering a glimpse into the future of cardiovascular medical technology. Additionally, students observed the Blood Pump Laboratory, where they learned about the development of artificial hearts utilizing ventricular assist systems, replicating the critical functions of the heart's ventricles. This immersive experience allowed students to witness firsthand the transformative impact of biomedical engineering on cardiac care.

Furthermore, the students had the opportunity to witness an implantable drug delivery system designed to release medication within the body every six months. The industrial visit also featured a noteworthy glimpse on a cost-friendly infant warmer utilizing infrared light. Overall, the students were exposed to a range of cost-efficient systems during the visit, showcasing the convergence of technology and healthcare in addressing critical medical challenges.



TKM Institute of Technology



(Approved by AICTE, New Delhi & affiliated to Kerala Technological University)
Musaliar Hills, Karuvelil P.O., Ezhukone, Kollam - 691505, Kerala, India
Phone : +91 474 2482833, +91 474 2482083 Fax : +91 474 2483715
E-mail : principal@tkmit.ac.in Website : www.tkmit.ac.in



Thangal Kunju Musaliar
Institute of Technology



MATLAB WORKSHOP

Organised by
Department of Biomedical Engineering

TOPIC HIGHLIGHTS

- Introduction to MatLab
- AI tools for MatLab
- Signal Processing
- Image Processing



Siva Subramanian R

Application Engineer, MathWorks & Xilinx
Products | Expert in MATLAB, SIMULINK,
and FPGA Designing | Signal Processing
and Machine Learning



Scan the QR
Code and

**REGISTER
NOW!**



12-13 December, 2023



BSP Lab, Department of BME



REPORT ON MATLAB WORKSHOP DAY 1&2

Venue: BSP Lab, Department of Biomedical Engineering.

Date: 12-13 December, 2023

Poster:

Description

Day 1 - The Department of Biomedical Engineering along with IEEE SB TKMIT and IEEE EMBS TKM IT successfully organized a two day MATLAB WORKSHOP, for the 5th semester Biomedical Engineering

students. The workshop took place on the 12th of December from 10:00 am. The workshop was lead by **Mr. Siva Subramanian R**, Application Engineer, MathWorks & Xilinx Products, who is also an Expert in MATLAB, SIMULINK and FPGA Designing. Mr. Siva Subramanian R guided the students to understand and think for themselves on the matters of Signal Processing. This helped the students to gain a grasp on the much needed basics. Day 1 of the Workshop successfully concluded at 3:00 pm. **Day 2** of the MATLAB WORKSHOP was organized on the 13th of December from 9:30 am. On the second day, Mr. Siva Subramanian R dived more into depth and handled a project oriented session which was an immense help for the students. The workshop was very engaging and the students were able to gain much needed expertise with the help of Mr. Siva Subramanian R. The second day came to an end at 1:00 pm



TKM

Institute of Technology



(Approved by AICTE, New Delhi & affiliated to Kerala Technological University)
Musaliar Hills, Karuvelil P.O., Ezhukone, Kollam - 691505, Kerala, India
Phone : +91 474 2482833, +91 474 2482083 Fax : +91 474 2483715
E-mail : principal@tkmit.ac.in Website : www.tkmit.ac.in

REPORT OF EXPERT TALK ON INDUSTRIAL SAFETY **ENGINEERING**

Workplace of today in Engineering manufacturing and construction presents situations which are complexed by dangerous operations and use of hazardous materials. Safety is a very important aspect for any industry as an accident-free work environment boosts the morale of the team members working in any hazardous situations. Recognizing these facts, industries involving various hazards and risks industries prepare their own safety policy, safety manual and have a separate department/section for safety so as to create proper aware-ness and provide the know-how-about the safety. Adherence to the useful information, rules, and mandatory requirements governing the safety and guidelines will help prevent occupational injuries and accidents which constitute an unavoidable and needless waste of human and material resources.

Industrial safety refers to the management of all operations and events within an industry in order to protect its employees and assets by minimizing hazards, risks, accidents, and near misses. Industrial safety is overseen by federal, state, and local laws and regulations. The Occupational Safety and Health Association (OSHA) is the primary regulatory body in the United States dedicated to ensuring industrial safety. Industrial safety covers a number of issues and topics affecting safety of personnel and the integrity of equipment in a particular

industry.

Based on the new course (MCN401-Industrial Safety Engineering) introduced by KTU for 7th Semester students, an EXPERT TALK ON INDUSTRIAL SAFETY ENGINEERING has been organized by TKM Institute of Technology, Kollam.

Details of the Expert Talk

- Resource Person: **Mr. Bhanu K.**
Lead Auditor: ISO 9001, ISO 14001, ISO 22000, ISO 45001 & SA 8000
Sr. HSE Engineer
(Empanelled by M/s Bureau Veritas India Private Limited)
- Date: 04/12/2023
- Time: 2.00-4.00pm
- Venue: Seminar Hall (Administrative Block)
- Participants: 7th semester students of all programs and the faculty members
The following topics are generally discussed:
 - ❖ Introduction to Industrial Safety
 - ❖ Safety & Productivity
 - ❖ Unsafe Act and Unsafe Conditions

- ❖ Safety Organization & Safety policy
- ❖ Hazards in Workplace
- ❖ Personal Protection in Work Environment & Types of PPE
- ❖ Work Permit System.

At the end of the expert talk, an MCQ test has been conducted for the students. Feedback of the session is also collected from the participants.

Images





 **GPS Map Camera**



Google

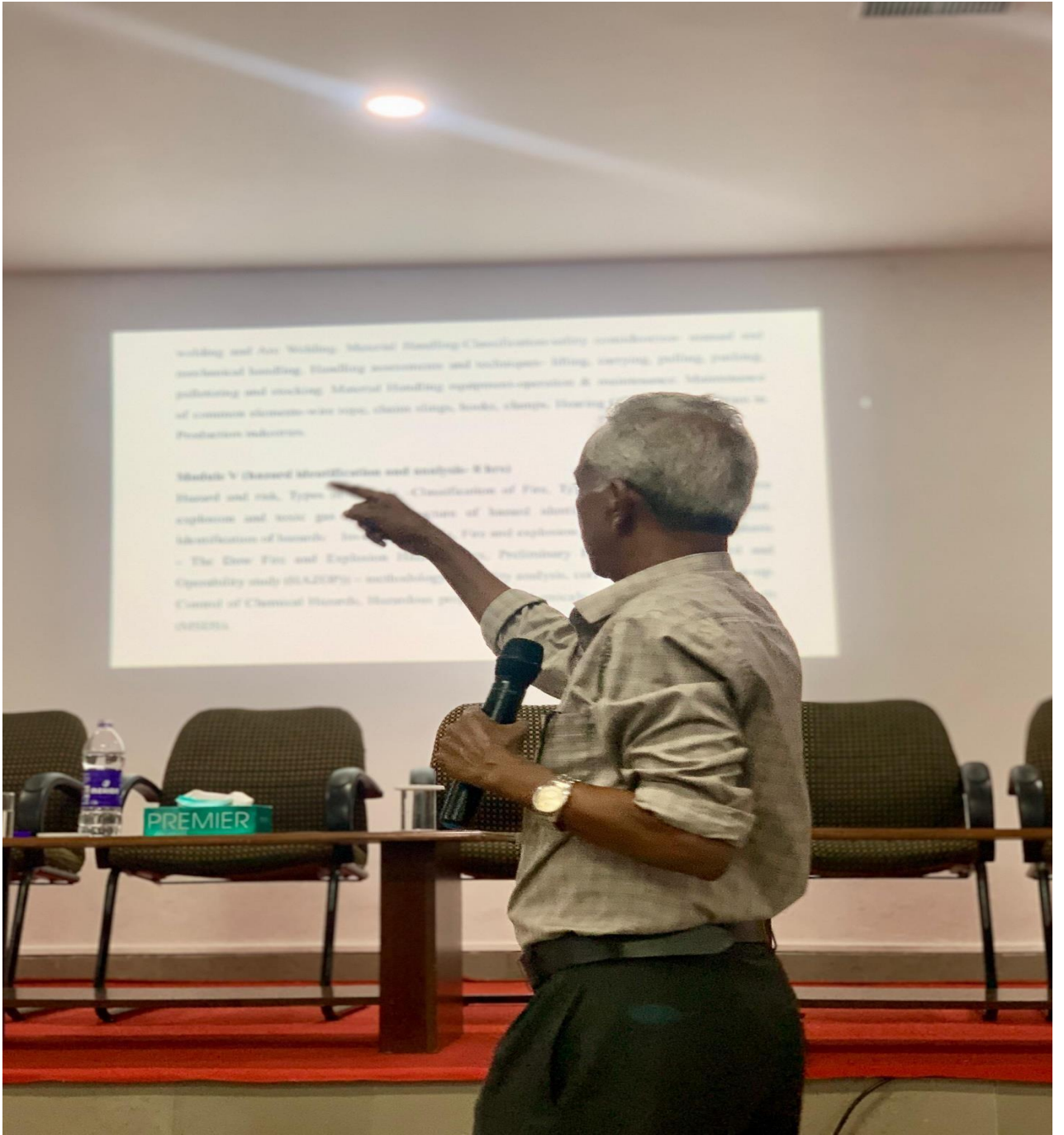
Kollam, Kerala, India
XMWW+23F, Kollam, Kerala 691505, India
Lat 8.994962°
Long 76.695399°
04/12/23 03:04 PM GMT +05:30



 **GPS Map Camera**



Kollam, Kerala, India
XMWW+23F, Kollam, Kerala 691505, India
Lat 8.994962°
Long 76.695399°
04/12/23 03:47 PM GMT +05:30



working and Air Working, Material Handling-Classification-using consideration manual and mechanical handling, Handling accessories and techniques- lifting, carrying, pushing, pulling, pulling and stacking, Material Handling equipment-operation & maintenance, Maintenance of common elements-wire rope, chains slings, hooks, sheaves, Hoisting devices in Production industries.

Module V Chemical Identification and analysis 5 hrs

Hazard and risk, Types of Hazards, Classification of Fire, Explosion, Fire and explosion and toxic gas, Identification of hazard, Identification of hazards, Fire and explosion, - The Dow Fire and Explosion Investigation, Preliminary Operational study (HAZOP) - methodology, Control of Chemical Hazards, Hazardous process (HAZOP).