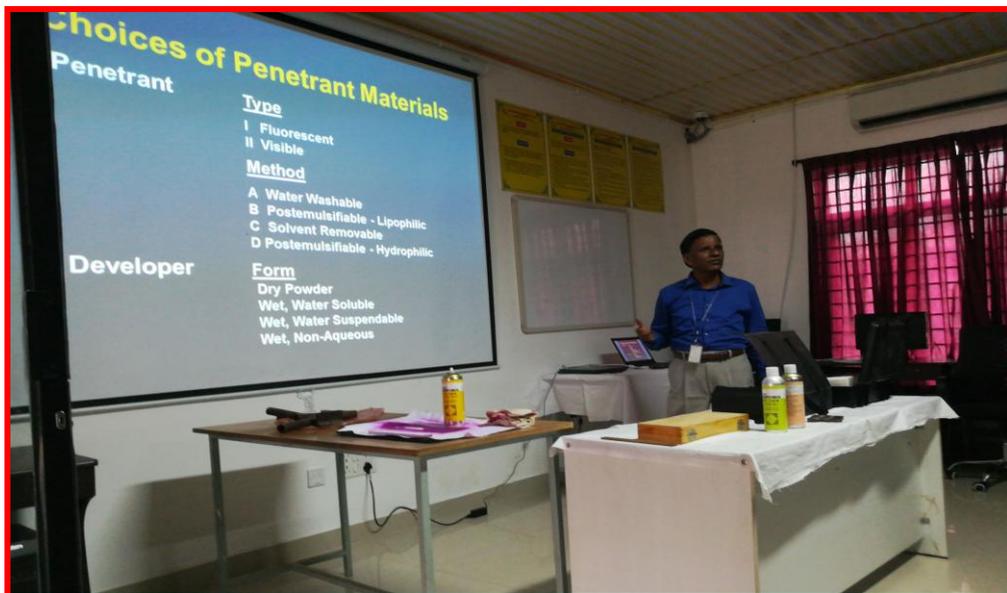


DEPARTMENT OF MECHANICAL ENGINEERING

A One-Day Skill Development Program on Non-Destructive Testing: Hands-on Training

A One-Day Skill Development Program on "Non-Destructive Testing: Hands-on Training" was organized to the students of Mechanical Engineering on 13th October, 2018.



***Mr. C. A. Manohar, Trainer, Corporate-Technology & Engineering Academy,
Larsen & Toubro Limited, Mysore delivering the lecture***

Mr. C.A. Manohar, Trainer, Corporate-Technology & Engineering Academy, Larsen & Toubro Limited, Mysore shared his valuable technical expertise in the field of Non-destructive testing with the students of Mechanical Engineering. He elucidated Non-Destructive Testing (NDT) as a simple way of testing without destroying. NDT consists of wide group of analysis techniques used in science and technology to evaluate the properties of a material, component or system without causing damage. The common applications of NDT are inspection of raw products, inspection following secondary processing and in-services damage inspection.



Mr. C. A. Manohar, Resource Person interacting with the faculty and students

Mr. Manohar explained that as NDT does not permanently alter the article being inspected. It is a highly valuable technique that can save both money and time in product evaluation, troubleshooting, and research. The six most frequently used NDT methods are eddy-current, magnetic-particle, liquid penetration, radiographic, ultrasonic, and visual testing. NDT is commonly used in forensic engineering, mechanical engineering, petroleum engineering, electrical engineering, civil engineering, systems engineering, aeronautical engineering, medicine, and art.



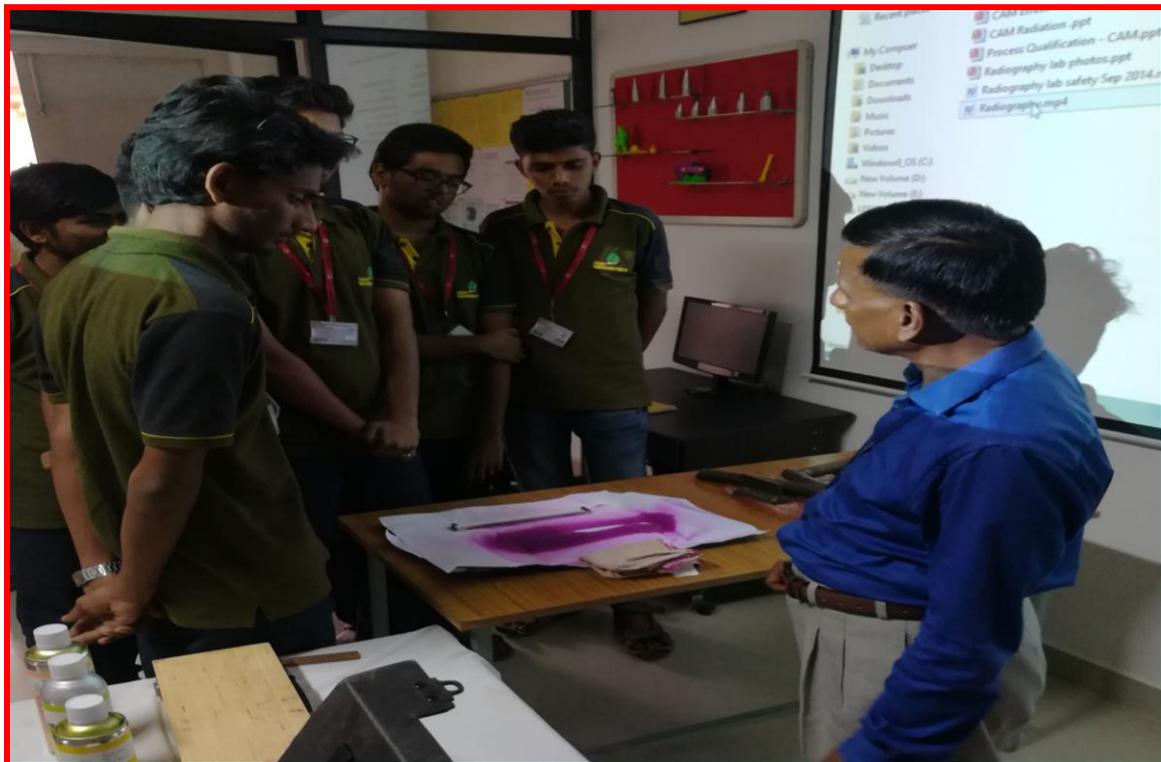
Demonstration and Hands-on Training on NDT by Mr. Manohar



Demonstration and Hands-on Training on NDT by Mr. Manohar

During his lecture, he explained that non-destructive testing can be directly applied to the product where tested parts are not damaged and various tests can be performed on the same product without the requirement of specimen preparation resulting in less time consumption and low labour cost.

Some of the common defects are porosity, undercutting, rollover or Cold Lap, slag inclusion, poor penetration, voids and hydrogen embrittlement.



Students interacting with the Resource Person, Mr.C.A.Manohar

Finally, the resource person concluded that NDT can save and/or avoid costs in millions of dollars for facilities that use its methods. There are proven NDT technologies to do this, from conventional to more advanced ones that are essentially based on the conventional ones. Their required training requirements and proper application are paramount for realizing ever-increasing benefits.

Innovations in the field of non-destructive testing have had a profound impact on medical imaging, including echocardiography, medical ultra-sonography, and digital radiography. An additional challenge for NDT manufacturers is meeting the high customer expectations. Customers are demanding a host of features in the new equipment, which may not be possible due to technology or economic limitations.



Dr. K.C.Varaprasad, HOD, ME interacting with the students

Dr. K.C.Varaprasad, Professor and Head of Mechanical Engineering interacted with the students and stressed the importance of organizing this type of programs in the department. Students and faculty interacted with the resource person regarding the industry practices and the practical applications of Non-destructive techniques.

About 100 students of III B.Tech got benefitted by attending the program and had a rich hands-on-experience on NDT.