

TWO DAYS WORKSHOP

On

“Health Analysis of Steel Structure by Non-Destructive Testing (NDT)”

(11th& 12th March, 2022)



Conducted by

DUTTCON Consultant and Engineers Pvt. Ltd., Kolkata

Jointly Organized by

Department of Metallurgical Engineering,

Innovation, Incubation & Entrepreneurship (IIE) Cell,

KNU Centre for Entrepreneurship and Skill Development

KAZI NAZRUL UNIVERSITY

ASANSOL-713340

**Department of Metallurgical Engineering,
Innovation, Incubation & Entrepreneurship (IIE) Cell,
KNU Centre for Entrepreneurship and Skill Development**

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“Health Analysis of Steel Structure by Non-Destructive Testing (NDT)”

Conducted by : DUTTCON Consultant and Engineers Pvt. Ltd., Kolkata

Date & Time :

11th March, 2022 (11:00 A.M. to 5:00 P.M.) & 12th March, 2022 (11:00 A.M. to 4:00 P.M.)

Registration Starts: 5th March, 2022

About the Workshop : Testing, characterization, and evaluation of steel components form an integral part towards component integrity assessment and the so called “Health Analysis” of steel structures. In doing so, various non-destructive techniques (NDT) are now available with a range of applications. It is thus essential for a practicing metallurgists or materials engineers to have at least a working knowledge in this rapidly evolving area. The inclusion of the subject NDT in UG curriculum in the leading academic institutes, including Kazi Nazrul University, is a testimony towards this realization. The present workshop aims to present an overview of NDT applicable to the health analysis of steel structures. It is designed with the theoretical background blended with hands on training with the applicable techniques. The organizers believe that this workshop will be useful for the practicing engineers as well as the students in Metallurgical Engineering.

Started in 1992, Duttcon is an industry leader and has grown and diversified over the years into number of activities, e.g. Testing & Failure Analysis, Health Checking of Structural, Metallurgical Quality Control, Stability and Safety Inspection, Testing and Calibration,

Training, etc. They are well equipped with in-house knowledge bank & expertise along with professionals & exerts from allied industries and professors & research fellow from Jadavpur University, IEST, NITs & IITs. They are also authorized by Chief Inspector of Factories & Boilers of different states like Jharkhand, Odisha & Rajasthan and the team consists of ASNT certified personnel. Their expertise in Retro-fitting and Re-strengthening / Re-conditioning of mechanical & civil structures like Flyovers, Bridges, Silos in Cement Plants and different engineering plants, factories & buildings have been utilized by SAIL, Coal India, CMDA, Hindustan Unilever, ITC, CLW, Voltas, Burn Standard, Texmaco, Hindalco, Grasim, etc.

Organizing Committee

CHIEF PATRON:

Prof. (Dr.) Sadhan Chakraborti: Honourable Vice Chancellor, Kazi Nazrul University

PATRONS:

Prof. (Dr.) S K Ghosh: Dean (Science & Technology), Kazi Nazrul University

Dr. Arghya Majumder: Director of School of Mines and Metallurgy and President of Innovation, Incubation & Entrepreneurship (IIE) Cell, Kazi Nazrul University

ORGANIZING COMMITTEE:

Dr. Projjal Basu: Professor & Head, Department of Metallurgical Engineering, Kazi Nazrul University (Organizing Secretary)

Dr. Arijit Sinha: Associate Professor, Department of Metallurgical Engineering, Kazi Nazrul University (Joint Organizing Secretary)

Dr. Chanchal Biswas: Assistant Professor, Department of Metallurgical Engineering; Convener of Innovation, Incubation & Entrepreneurship (IIE) Cell, Kazi Nazrul University (Joint Organizing Secretary)

Dr Lalit Kumar Joshi: Assistant Professor, Department of Commerce; Coordinator of KNU Centre for Entrepreneurship and Skill Development, Kazi Nazrul University (Member)

Dr. Arindam Biswas: Associate Professor & Head, Department of Mining Engineering; Member of Innovation, Incubation & Entrepreneurship (IIE) Cell, Kazi Nazrul University (Member)

Dr. Gurudas Mondal: Assistant Professor, Department of Metallurgical Engineering; Member of Innovation, Incubation and Entrepreneurship (IIE) Cell, Kazi Nazrul University (Member)

Mrs. Barnali Sengupta: Assistant Professor, Department of Metallurgical Engineering; Startup Coordinator of Innovation, Incubation and Entrepreneurship (IIE) Cell, Kazi Nazrul University (Member)

Dr. Soumya Mukherjee: Assistant Professor, Department of Metallurgical Engineering; Member of Innovation, Incubation and Entrepreneurship (IIE) Cell, Kazi Nazrul University (Member)

ELIGIBILITY & REGISTRATION:

The participant should be at least a 3rd Year Diploma or UG Engineering student / teaching faculty member / researcher from educational & research institute / industry. **Registration Fee for Attending the Workshop: 1000/- Per Person for external participants.** Register using the link: <https://forms.gle/L1xFrkLgLQT9x1Pc9>

CONTACT:

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Dr. Arijit Sinha (Email : metallurgy.arijit@knu.ac.in, Phone : 9836436206)

Dr. Chanchal Biswas (Email : chanchal.biswas@knu.ac.in Phone : 9733587845)

PROGRAM SCHEDULE

DAY ONE (11th March, 2022)

Inauguration by Prof. (Dr.) Sadhan Chakraborti , honourable Vice Chancellor, Kazi Nazrul University	11:00AM to 11:10AM
Speech by Dr. S K Ghosh , Dean, Science and Technology, Kazi Nazrul University	11:10AM to 11:15AM
Speech by Dr. Arghya Majumder , Director of School of Mines and Metallurgy; President of Innovation, Incubation and Entrepreneurship (IIE) Cell, Kazi Nazrul University	11:15AM to 11:20AM
Dr Lalit Kumar Joshi , Assistant Professor, Department of Commerce; Coordinator of KNU Centre for Entrepreneurship and Skill Development, Kazi Nazrul University	11.20AM to 11.25AM
Speech by Mr. Surajit Dutta , Managing Director, Duttcon Consultant & Engineers Pvt. Ltd.	11:25AM to 11:35AM
TEA Break : 11:35AM to 11:50AM	
Session 1: 1. Introduction & Necessity of Quality Control as Metallurgical Engineer 2. Different Technique of NDT in Health Analysis of Steel Structure 3. Physics and Basic Science Behind NDT Techniques	11:50AM to 2:00PM
LUNCH Break : 2:00PM to 2:30PM	
Session 2: Welding Procedure & Defects Identification	2:30PM to 3:30PM
TEA Break : 3.30PM to 3.45PM	
Session 3: Hands on Training on In-situ Metallography	3.45PM to 5.00PM

DAY TWO (12th March, 2022)

Session 1: Hands on Training

1. Dye Penetrant Test
2. Magnetic Particle Test
3. Ultrasonic Thickness Gauging

11:00AM to
2:00PM

[TEA Break :
12:30PM to
12:45PM]

Lunch Break : 2:00PM to 2:30PM

Session 2: Hands on Training

1. Ultrasonic Flaw Detection
2. Overall Analysis

2:30PM to
3:15PM

Question – Answer

3:15PM to
3:45PM

Certificate Distribution

3:45PM to
4:00PM

Vote of Thanks : 4:00PM to 4:10PM

