

## Report on Two weeks Refresher Course in "Mechanical Engineering (ICT-90)"

(HRDC, Integral University, Lucknow, a Remote Center of NITTTR, Chandigarh)

4<sup>th</sup> July to 15<sup>th</sup> July, 2022

The Human Resource Development Centre, Integral University as a remote center of NITTTR, Chandigarh has conducted **Two weeks Refresher Course in "Mechanical Engineering (ICT-90)"** from 4<sup>th</sup> July to 15<sup>th</sup> July, 2022 at CSE Lab-6, Integral University, Lucknow. This Course was organized by the Ministry of Education, Government of India's National Institute of Technical Teachers Training & Research (NITTTR), Chandigarh.



Total Thirty technical sessions were constituted from wide variety of topics and each session was led by a team of experts viz.:

Day 1:

- Overview of Refresher Course and Industrial Automation by Dr. Sukhdeep S. Dhami, NITTTR Chandigarh.
- Solid State Welding Processes by Dr. G.S.Brar, NIT, Uttarakhand.
- CNC Programming by Dr. B S Pabla, NITTTR Chandigarh.

Day 2:

- 2D and 3D CAD by Er. Hirdaypal Singh Sidhu, Parametric CadTech, Mohali.
- HVAC Systems by Dr. IPS Ahuja Punjabi University, Patiala.
- Engineering Graphics by Dr. Sanjeev Kumar, PEC Chandigarh.

Day 3:

- Quality in Manufacturing by Dr. Sandeep Grover, JCBUST, YMCA, Faridabad.
- Finite Element Modelling & Analysis by Er. Hirdaypal Singh Sidhu, Parametric CadTech, Mohali.
- Assignment 1 was given by Dr. Sukhdeep S. Dhama, NITTTR Chandigarh

Day 4:

- Machine Design by Dr. Rajesh Kanda, PEC Chandigarh.
- 5S- A quality improvement tool for sustainable performance by Dr. IPS Ahuja, Punjabi University, Patiala.
- Heat Treatment and Physical Metallurgy by Dr. Sanjeev Kumar, PEC Chandigarh.

Day 5:

- Modelling and Simulation Dr. Sukhdeep S. Dhama , NITTTR Chandigarh.
- Ergonomics by Dr. S.S. Banwait, NITTTR Chandigarh.
- Hot Corrosion, Dr. Niraj Bala, NITTTR Chandigarh.

Day 6:

- Additive Manufacturing by Dr. Rupinder Singh, NITTTR Chandigarh.
- Process Optimization using MCDM by Dr. Harwinder Singh, GNDEC Ludhiana.
- Fundamentals of Material Characterization Dr. Sanjeev Kumar, PEC Chandigarh.

Day 7:

- Industrial Robotics Dr. Sukhdeep S. Dhama , NITTTR Chandigarh.
- Visual Factory Management – An effective tool for Waste Elimination by Dr. IPS Ahuja, Punjabi University, Patiala.
- Design of Experiments by Dr. Sanjeev Kumar, PEC Chandigarh.

Day 8:

- NEP-2020: An Overview by Dr. Sandeep Grover, JCBUST, YMCA, Faridabad.
- TQM & TPM for Manufacturing Performance Enhancement by Dr. IPS Ahuja, Punjabi University, Patiala.
- Waste Management by Dr. Rupinder Singh, NITTTR Chandigarh.

Day 9:

- Mathematical Tools for Optimization-I by Dr. K.C.Lachhwani, NITTTR, Chandigarh.
- Mathematical Tools for Optimization-II by Dr. K.C.Lachhwani , NITTTR ,Chandigarh.
- Assignment 2 were given by Dr. Rupinder Singh, NITTTR Chandigarh.

Day 10:

- 4D Printing by Dr. Rupinder Singh, NITTTR Chandigarh.
- Industrial IoT by Mr. Tarikdeep Singh, Tech. Mahindara, Chandigarh.
- Feedback and valediction by Dr. Sukhdeep S. Dhama and Dr. Rupinder Singh, Program Coordinator NITTTR Chandigarh.

Overall Twenty participants benefited from this Refresher Course. This program was very unique as Integral University remote center was very much appreciated for active participation and interaction by NITTTR, Chandigarh. The program was coordinated by Dr. Sheeba Praveen as Remote Center Coordinator, and Mr. Mohd Arif Ali Usmani as Technical supporting staff from Department of Computer Science and Engineering.

## Glimpses of the Event:

