

# **Course: Advanced Machining Processes**

**Course Code:** noc20-me76

**Session:** 2020-21

**Duration:** 8 Weeks

**Assessment procedures:** Weekly Assignment (25%) + proctored certification Exam (75%)

## **Curriculum of the Course:**

Week 1:

- Introduction to advanced machining processes
- their classification
- Ultrasonic machining
- its modelling and analysis

Week 2:

- Abrasive jet machining (AJM)
- Water jet cutting (WJC)
- Abrasive water jet machining (AWJM)
- Magnetic abrasive finishing (MAF)
- its modelling

Week 3 :

- Abrasive flow finishing (AFF)
- its modelling
- Magnetorheological finishing (MRF)

Week 4 :

- Magnetorheological abrasive flow finishing (MRAFF)
- its modelling
- analysis

Week 5 :

- Electric discharge machining (EDM):Principle
- applications, process parameters
- modelling.
- Electric Discharge Grinding (EDG)
- Electric Discharge Diamond Grinding (EDDG)
- Wire Electric Discharge Machining (W EDM)

Week 6 :

- Laser beam machining (LBM)
- Plasma arc machining (PAM)
- Electron Beam Machining (EBM)

Week 7 :

- Electro chemical machining (ECM):Principle
- Applications
- process parameters
- modelling

Week 8 :

- Electrochemical Grinding (ECG)
- Electrostream Drilling (ESD)
- Shaped Tube Electrolytic Machining (STEM)
- Chemical machining (ChM)

### List of students enrolled

| S. No | Name of Student   |
|-------|-------------------|
| 1     | Abhishek Saini    |
| 2     | Abhishek Gupta    |
| 3     | Aman Sharma       |
| 4     | Anshul Sharma     |
| 5     | Kshitiz Anurag    |
| 6     | arnav pareek      |
| 7     | asit jain         |
| 8     | AVINASH SINGH     |
| 9     | Ayush Khandelwal  |
| 10    | Nikhil Bhatia     |
| 11    | chitesh garg      |
| 12    | Darshan Jain      |
| 13    | Dileep Menaria    |
| 14    | gunjan khandelwal |
| 15    | ADITYA Z GUPTA    |
| 16    | Himanshu Gothwal  |
| 17    | Hritik Gaur       |
| 18    | Jatin Dhyawana    |
| 19    | Karan Chawda      |

|    |                            |
|----|----------------------------|
| 20 | Naveen Pareek              |
| 21 | Harsh sharma               |
| 22 | Prakhar Bhardwaj           |
| 23 | Priyambada Singh Shekhawat |
| 24 | Priyansh indoria           |
| 25 | Puneet Kumawat             |
| 26 | Rajat Saini                |
| 27 | Rajkumar gangwar           |
| 28 | Rajat Sharma               |
| 29 | Rhythm purohit             |
| 30 | Rishabh Shrivastava        |
| 31 | Roshan nama                |
| 32 | saksham jain               |
| 33 | Samardeep Singh Chopra     |
| 34 | Sarthak Agarwal            |
| 35 | Shubham Soni               |
| 36 | Somin Seth                 |
| 37 | Tushar sharma              |
| 38 | hitesh mishra              |
| 39 | Vaibhav Bhardwaj           |
| 40 | Akshay Verma               |