

Course: Steam and Gas Power Systems

Course Code: noc21-me21

Session: 2020-21

Duration: 8 Weeks

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

Curriculum of the Course:

Week-1 Review of Thermodynamics, Rankine Cycle, Performance of Rankine Cycle, Binary Vapour Cycle and Co-generation, Problem Solving.

Week-2 Steam Generators, Fire Tube Boilers, Water Tube Boilers, Boiler Mountings and Accessories, High Pressure Boilers- LaMont and Benson Boilers.

Week-3 High Pressure Boilers- Loeffler and Velox Boilers, Draught, Performance of Boilers, Combustion of Fuel, Problem Solving.

Week-4 Boiler Trial, Nozzles and Diffusers-Momentum and Continuity Equations, Nozzles and Diffusers-Efficiency and Critical Pressure, Nozzles and Diffusers-General Relationship and supersaturated Flow, Problem Solving.

Week-5 Steam Turbines, Compounding of Steam Turbines, Impulse Steam Turbines, Impulse Steam Turbine Performance, Problem Solving.

Week-6 Impulse-Reaction Steam Turbines, Impulse-Reaction Turbine Performance, Energy Losses in Steam Turbines, Condensers, Problem Solving.

Week-7 Gas Turbine Cycles, Gas Turbine Cycles- Performance Evaluation, Gas Turbine Cycles-Modifications, Problem Solving, Centrifugal Compressors.

Week-8 Centrifugal Compressor Characteristics, Axial Flow Compressors, Axial Flow Compressor Characteristics, Jet Propulsion, Problem Solving.

List of students enrolled

S. No	Name of Student
1	Dharma Ram Jat
2	Harsh Sharma
3	Hritik Maratha
4	Jayesh Verma
5	Jatin Dhyawana
6	Deepak Kumar Yadav
7	Naveen Pareek

8	Priyanka Soni
9	Rajat Saini
10	Samardeep Singh Chopra
11	Somin Seth
12	Akshay Verma
13	Vishnu Kumar Sharma
14	Mohammed Younus