Course: Steam and Gas Power Systems

Course Code: noc18-me34

Session: 2017-18

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- Loeffer 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, Multistaging of Turbines, Condensers, Problem Solving

Week 7:

- Gas Turbine Cycles, Gas Turbine Cycle- Performance Evaluation, Gas Turbine Cycle-Effect of Operating Variables, Problem Solving, Centrifugal Compressors

Week 8:

- Centrifugal Compressor Characteristics, Axial Flow Compressors, Axial Flow Compressor Characteristics, Combustion Systems, Problem Solving

List of students enrolled

S. No.	Name of Student
1.	Jitender Kumar Yadav