Course: Power Plant Engineering

Course Code: noc21-me86

Session: 2020-21

Duration: 8 Weeks

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

Curriculum of the Course:

Week 1: The energy scenario, steam power plants, fuel handling, ash handling, chimney draught
Week 2: Fossil fuel steam generators, high pressure boilers, performance of boilers, fuels and combustion, steam turbines
Week 3: Impulse turbines, reaction turbines, feed water treatment, steam condensers, problem solving
Week 4: Condensate feed water system, circulating water system, gas turbine cycles, combined cycles, hydro-electric, power plants
Week 5: Classification of hydro-plants, hydraulic turbines, hydro plant controls, problem solving
Week 6: Principles of nuclear energy, thermal fission reactors and Power Plants, Fast breeder reactors, solar energy, solar thermal energy
Week 7: Solar thermal energy, direct energy conversion, wind energy, geothermal energy, energy from oceans
Week 8: Energy storage, economics of power generation, economics of power generation, environmental aspect of power generation, problem solving

List of students enrolled

S. No.	Name of Student
1	Anshul Sharma
2	Arshdeep Singh Kalsi
3	Avinash Mittal