

DESIRABLE SKILL SETS

RD- 01 - SENIOR ENGINEER / DY.MANAGER (ADVANCED HEAT TRANSFER)

Basic requirements:

1. Specialisation in Advanced Heat Transfer and Thermal Power Engineering.
2. Experience in the design of heat exchanger components and test facilities.

Other desired requirements: (which will be considered as an added advantage)

3. Familiarisation in Computer Packages and programming
4. Experience in the fields of:
 - a) Research tools such as Design of Experiments, Data Analysis & Interpretation, etc.
 - b) Heat Transfer studies in Laboratories / Industries / Power Plants for solving heat transfer problems.
5. Published at least two technical papers in National / International Publications.
6. Familiarisation with steam properties in Supercritical and Ultra supercritical regimes to undertake projects for improved steam plant cycles as a part of Clean Coal Technologies.

RD- 02 - SENIOR ENGINEER / DY.MANAGER (COMBUSTION TECHNOLOGY)

Basic requirements:

1. Specialisation in Fuels and Combustion Technologies.
2. Experience in the design of Fuel firing equipments.

Other desired requirements: (which will be considered as an added advantage)

3. Knowledge on clinkering, slagging, fouling, dust loading and their impact on heat transfer.
4. Familiarisation in Computer packages and programming.
5. Experience in the fields of:
 - a) Research tools such as Design of Experiments, Data Analysis & Interpretation, etc.
 - b) Combustion studies in Laboratories / Industries / Power Plants for solving combustion related problems.
6. Published at least two technical papers in National / International Publications.
7. Familiarisation with Thermal Power plant pollutants, formation and control mechanisms for meeting the emerging pollution norms as a part of Clean Coal Technologies.

RD- 03 - SENIOR ENGINEER / DY.MANAGER (NANO TECHNOLOGY)

Basic requirements:

1. Specialisation in Nano Technology and nano material science.
2. Specialisation on nano material synthesis, nano material characterisation and diagnostics.
3. Experience of setting up a nano material synthesis lab / specifying equipments.
4. Experience on characterisation of materials like Microstructure, TGA, Particle size analysis, Thermal conductivity, SEM, TEM, etc.

Other desired requirements: (which will be considered as an added advantage)

5. Experience in the fields of Research tools such as Design of Experiments, Data Analysis & Interpretation, etc.
6. Published at least two technical papers in National / International Publications.
7. Basic knowledge on Heat Transfer, Thermal Engineering and Materials.

CR- 01 - SENIOR ENGINEER / DY.MANAGER (PROCESS ENGINEERING)

Basic requirements:

1. Process Engineering
2. Modeling & Simulation of Chemical Reactors/ Gasifier for Clean Coal Technology.

Preferred Experience: (which will be considered as an added advantage)

3. Gas –Solid Multiphase Chemical Reactions and Gas-solid flow systems.
4. Fluidised bed Gas-Solid reactors for Coal Gasification.
5. Dynamic modeling and simulation of Multi-phase Gas-solid reactions.
6. Simulation using software such as Aspen Plus and Aspen Dynamics

CR- 02 - SENIOR ENGINEER / DY.MANAGER (FUEL CHEMISTRY)

Basic requirements:

1. Hands on experience in the fields of:
 - a) Fuel characterization (for fuels like coal/lignite, biomass, pet coke, etc)
 - b) Advanced equipments like CCSEM, HTXRD, XRF, ICPMS, FTIR, TGA./DSC etc.
 - c) Fuel testing methods as per ASTM/BIS standards

Desired requirements: (which will be considered as an added advantage)

2. Development of new testing methods for fuel/ash characterization for power plant applications
3. Handling R&D projects and preparing technical reports in the field of fuel characterization.
4. Publishing papers in the area of fuel/combustion /gasification in peer reviewed journals
5. Patent review on the chosen subject

PL - 01 - SENIOR ENGINEER / DY.MANAGER (WATER CHEMISTRY)

Basic requirements:

1. Hands on experience in the fields of:
 - (a) Fuel characterization (for fuels like coal, biomass, pet coke, etc)
 - (b) Operating experience in advanced equipments like Inductively Coupled Plasma analyzer, Atomic Absorption Spectrometer, etc.
 - (c) Capable of initiating and carrying out project works in the field of fuel characterization

Desired requirements: (which will be considered as an added advantage)

2. Research work in the field of water chemistry
3. Ability to prepare technical documents like, Project Initiation & Completion Reports, Patent Specifications, etc.
4. Literature survey on the specified area
5. Patent review on the chosen subject