



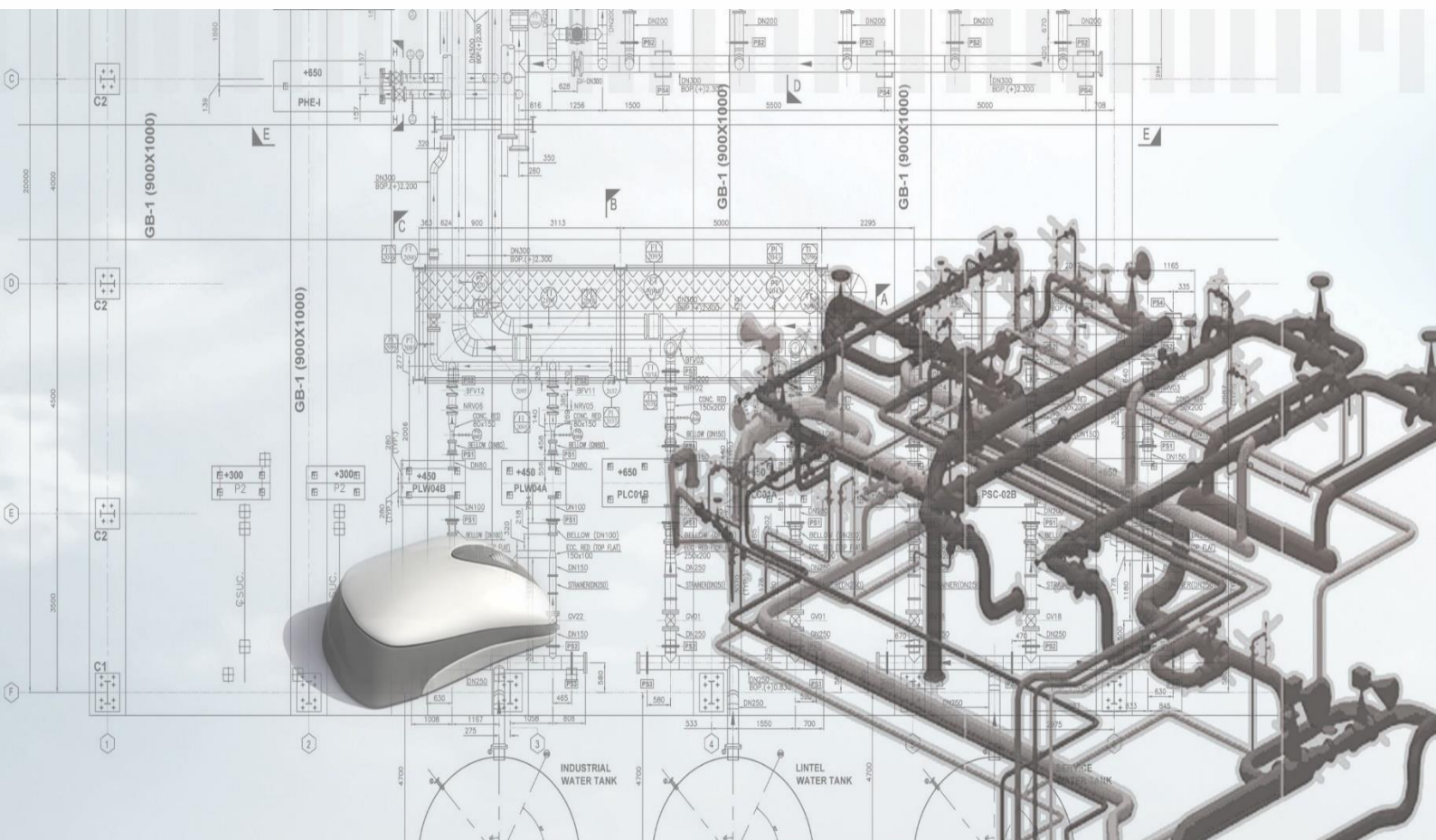
**SPET DESIGN AND ENGINEERING SERVICES (P) LTD**

**SPET DESIGN AND ENGINEERING SERVICES PRIVATE LIMITED  
164/21 LAKE GARDENS, KOLKATA-700 045, WEST BENGAL, INDIA**

**+919836653322 / +919836017659**

**[sourav.chanda@spetde.com](mailto:sourav.chanda@spetde.com) [priyadarshini.ghosh@spetde.com](mailto:priyadarshini.ghosh@spetde.com)**

**URL: [www.spetde.com](http://www.spetde.com)**



***Flagship Initiative of Technocrats of SPET  
Committed to Innovation towards Engineering Excellence***



Government of India  
Ministry of Commerce & Industry  
Department for Promotion of Industry and Internal Trade

**#startupindia**





## SPET DESIGN AND ENGINEERING SERVICES (P) LTD

Recognised by Government of India under [START UP INDIA PROGRAMME](#)



### Our Team .....

**SPET's** team of professionals represent a diverse workforce of industry specialists and support teams, with spirit of innovation and record for delivery across our length of services. The Company has an adequate pool of talented and qualified individuals with varied work experiences in **M.N.DASTUR, SHOUGANG, BABCOCK, GE / ALSTOM, ABB FLAKT, DOOSAN, TOSHIBA, PRIMETALS, ARCELOR MITTAL, ESSAR ENGINEERING etc. to name a few.**

**SPET** and its team have extensive experiences in working overseas, such as **EGYPT, GERMANY, BANGKOK, ITALY, CHINA etc.**

The experiences gained by the workforce of **SPET** from overseas markets, together with the continual development of skills and training, has ensured that we are up to date with the latest developments in the technical arena. The projects undertaken by us are not only obtaining highly skilled partners but also offer more creativity towards Customers satisfaction.



## SPET DESIGN AND ENGINEERING SERVICES (P) LTD

### *From the Desk of the Technocrats of SPET .....*

Founded in 2022, SPET is a Flagship initiative of Technocrats having **Certificate of Recognition under START UP INDIA PROGRAMME by The Department for Promotion of Industry and Internal Trade (DPIIT), Government of India.**

**SPET also has an UDYAM registration under the Ministry of Micro, Small and Medium Enterprises (MSME), Government of India.**

**SPET** represents a strategic drive in creating a Global Engineering Services Company specializing in Consultancy and Engineering, from Concept to Commissioning benchmarked to international standards, powered by a potent mix of seasoned wisdom, youthful dynamism and state of the art infrastructure. The vision of SPET is to provide its Global customers with international quality services at the most competitive prices. SPET provides Basic and Detailed Engineering Services, Procurement Assistance Services, System Integration, Project Management Services, Supervision of Erection, Testing and Commissioning.

**We at SPET**, channelise the potential of technology and streamlined business processes to the fullest by offering single umbrella solutions to all kinds of Engineering Designs, meeting out the requirements to help leverage existing investments, improve operations, reduce costs and maximize business values. In order to achieve the highest degree of productivity and efficiency, our engineers combine the leading edge technologies with effective management skills. It is our goal to develop long-term relationships through client satisfaction, paving way towards growth and prosperity.

### *Vision of SPET .....*

**SINGLE WINDOW SOLUTION** to Customers with aspiration to be the most trusted technological partner with value additions and cost-effective solutions...

**We put “Innovation towards Engineering Excellence” in the fore front for our Customers.**



**SPET DESIGN AND ENGINEERING SERVICES (P) LTD**

**SPET TECHNOCRATS EXCELLENCE IN PULVERISED COAL INJECTION  
UNDER MAKE IN INDIA**







## SPET DESIGN AND ENGINEERING SERVICES (P) LTD

### COLLABORATION BEWEEN E.S.C.H. GERMANY AND SPET FOR PCI PROJECTS IN INDIA

DESIGN ENGINEERING BY E.S.C.H. / SPET, SUPPLY FROM INDIA, SUPERVISION OF ERECTION, TESTING AND COMMISSIONING BY E.S.C.H. / SPET AND AFTER SALES SERVICES FROM INDIA INCLUDING SPARES FROM INDIA

**E.S.C.H.**

Engineering Service Centre und Handel GmbH



**SPET** DESIGN & ENGINEERING SERVICES (P) LTD.

#### TO WHOM IT MAY CONCERN

Date: 30<sup>th</sup> May 2024

This is to certify that the companies, ESCH GmbH, Germany, and SPET DESIGN & ENGINEERING SERVICES (P) LIMITED, India, have formed a business collaboration to deliver Pulverised Coal Injection Systems to Steel Plants in India.

The joint collaboration will provide design engineering services from India and Germany, equipment supplies from Germany and India, supervision of erection, testing & commissioning, and after sales services.

ESCH GmbH will provide their PCI technology and have already commissioned PCI Projects for around 40 Blast furnaces in the World, will be the Leader of this collaboration and shall jointly undertake the PCI projects in India in collaboration with SPET DESIGN & ENGINEERING SERVICES (P) LTD.

Authorized Signatories and Contact Persons of the collaboration:

**ESCH GmbH** : Mr. Daniel KAULBARS, CEO

Email : [d.kaulbars@esch-online.de](mailto:d.kaulbars@esch-online.de) Mobile No. : +49 172 355 8213

E.S.C.H. GmbH, Engineering Service Centre & Handlung

Maxhüttenstraße 19, 07333 Unterwellenborn, GERMANY

Signature, date and stamp

I hereby agree to the content of this document.  
The content is correct and true.  
I am authorized to sign this document.  
I am authorized to represent the company.  
I am authorized to bind the company.  
I am authorized to act in the name of the company.

**E.S.C.H.**  
Engineering Service Center  
und Handel GmbH  
Maxhüttenstraße 19  
D-07333 Unterwellenborn  
Tel. 03671 / 67 40 10

**SPET DESIGN & ENGINEERING SERVICES (P) LTD.** : Mr. Sourav CHANDA, Director

Email : [sourav.chanda@spetde.com](mailto:sourav.chanda@spetde.com) Mobile No. : +919836653322

SPET Design and Engineering Services Private Limited

1/1 Khanpur Road, Flat S/1, Kolkata, WEST BENGAL - 700047, INDIA

Signature, date and stamp

**SOURAV  
CHANDA**

I hereby agree to the content of this document.  
The content is correct and true.  
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## SPET DESIGN AND ENGINEERING SERVICES (P) LTD

### AIR POLLUTION AND DEDUSTING SYSTEMS

**SPET functions with ELEX-INDIA** which is part of **ELEX-AG SWITZERLAND**, for EPC / EPS, Consultancy Projects and After Sales Services from India for Air Pollution and Dedusting Systems in India for sectors like **Steel, Power, Cement and other Industries** on specific Customer requirements.





**LIST OF PROJECTS**

Sl. No.	CLIENT	DESCRIPTION	STATUS
1	JINDAL SAW LIMITED	<b>PCI PROJECT:</b> Consultancy Services for Study Report on restoration of existing Pulverised Coal Injection Plant for MBF-2	Completed
2	TATA STEEL, METALIKS DIVISION	<b>PCI EXPANSION PROJECT FOR MBF#1 AND MBF#2.:</b> Basic and Detail Design Engineering, Procurement Assistance Services and Supervision of Erection, Testing and Commissioning.	On - going
3	TATA STEEL, METALIKS DIVISION	Increase of PULVERISED COAL INJECTION capacity from 6 TPH 7 TPH for MBF#1 and MBF#2	Completed
		Automatic <b>PULVERISED COAL INJECTION</b> System with Lance Cleaning System from Distributor to MBF#1 and MBF#2	
		To control the increase of VRM Thrust Pad temperature for <b>PCI</b>	
		Assessment of the health of the <b>PULVERISED COAL INJECTION</b> line for MBF#1 and MBF#2	
4	KIRLOSKAR FERROUS INDUSTRIES LIMITED.	<b>PCI PROJECT:</b> Consultancy, Detail Design Engineering of Electrical, Instrumentation and Automation, Vetting of EIA drawings of CSITEC China.	Completed
		Supervision of Erection, Testing and Commissioning of <b>PULVERISED COAL INJECTION PROJECT</b> for MBF#1 and 2	



## SPET DESIGN AND ENGINEERING SERVICES (P) LTD

Sl. No.	CLIENT	DESCRIPTION	STATUS
5	BCE DESIGN SERVICES LLP / DANIELI CORUS	<b>Design Engineering of Piping, Chimney for HOT BLAST STOVE and WGHRS with 3D Modelling for Danieli Corus.</b>	Completed
6	BCE DESIGN SERVICES LLP / TATA STEEL METALIKS DIVISION	Consultancy and Detail Design Engineering For TATA STEEL METALIKS DIVISION <b>DUCTILE IRON PIPE PLANT (PHASE-II)</b>	On - going
7	DANIELI INDIA LTD.	Design Engineering for EIA for <b>3 Strand Billet Caster at MUHAJ, IRAQ</b>	On - going
8	BCE DESIGN SERVICES / DANIELI CORUS	Pre-Bid Engineering of Electrical and Instrumentation System for 2 x 80 TPH Grinding system for <b>PULVERISED COAL INJECTION PLANT</b> of JSW Vijayanagar	Completed
9	BCE DESIGN SERVICES / DANIELI CORUS	Pre-Bid Engineering of Electrical, Instrumentation and Automation System for <b>HOT BLAST STOVE</b>	Completed
10	BCE DESIGN SERVICES / TMPL, Bhutan	TEFR for Instrumentation and Automation for 25.5 MVA <b>FERRO SILICON</b> project for TMPL, Bhutan	Completed
11	BCE DESIGN SERVICES / BCCL, Bhutan	TEFR for Instrumentation and Automation for 25.5 MVA <b>FERRO SILICON</b> project for BCCL, Bhutan	Completed





JINDAL SAW LTD.

COMPLETION CERTIFICATE

To,

Date: 20<sup>th</sup> March 2025

SPET DESIGN & ENGINEERING SERVICES (P) LTD.

1/1 Khanpur Road, Flat No. S/1

Kolkata – 700 047, West Bengal, India

Kind Attention Mr. Sourav Chanda- Director

Sub: COMPLETION CERTIFICATE

Ref: Work Order No. 4732011679 dated 05.09.2024 –ENGINEERING AND CONSULTANCY SERVICES FOR STUDY AND SUBMISSION OF REPORT ON RESTORATION OF EXISTING PULVERISED COAL INJECTION PLANT FORMBF#2

Dear Sirs,

We are pleased to inform you that the below mentioned assignments for Study and submission of Report with Analysis and recommendations towards Restoration of existing Pulverised Coal Injection Plant for MBF# 2 has been successfully completed by M/S SPET DESIGN & ENGINEERING SERVICES (P) LTD. (herein referred as M/S SPET) within the scheduled date of completion.

SCOPE of Work:-

- 1.0 Study the complete existing PCI plant for MBF#2 & suggest the required modifications in the system to improve the reliability, safety and operational efficiency.
- 2.0 Study the existing conveying pipe line and suggest the possibility of maximum rate of Pulverised Coal injection in the present set up of MBF#2.
- 3.0 Study the existing distributor and suggest automatic cleaning of the pipe line between distributor and lance in case of clogging of pulverised coal in the lance and the pipe line.
- 4.0 Suggest the throughput of the VRM and the necessary modifications required.
- 5.0 Study the existing automation system of the PCI plant and incorporate the safety features.
- 6.0 Provide the Basic Technical specification and Budgetary cost of the modifications suggested.

All the Analysis and recommendations made by M/S SPET in the Report for the above scope of work are highly appreciated. Apart from the above all the Technical support provided by M/S SPET are very much in line with JSAW's expectations.

The commitment, performance, quality, and timely deliverables by M/S SPET as covered under the Scope of Work are highly appreciated.

We look forward for further association with your Company, in the near future, with more value additions. With Best wishes for your Company's growth and success.

Unit: Village : Samaghogha, Panagar-Mandvi Road, Taluka : Mundra, Distt. Kutch, Gujarat-370415, India • Phone : +91 (2838) 263300

Corporate Office: Jindal Centre 12 Bhikaji Cama Place New Delhi - 110066 India

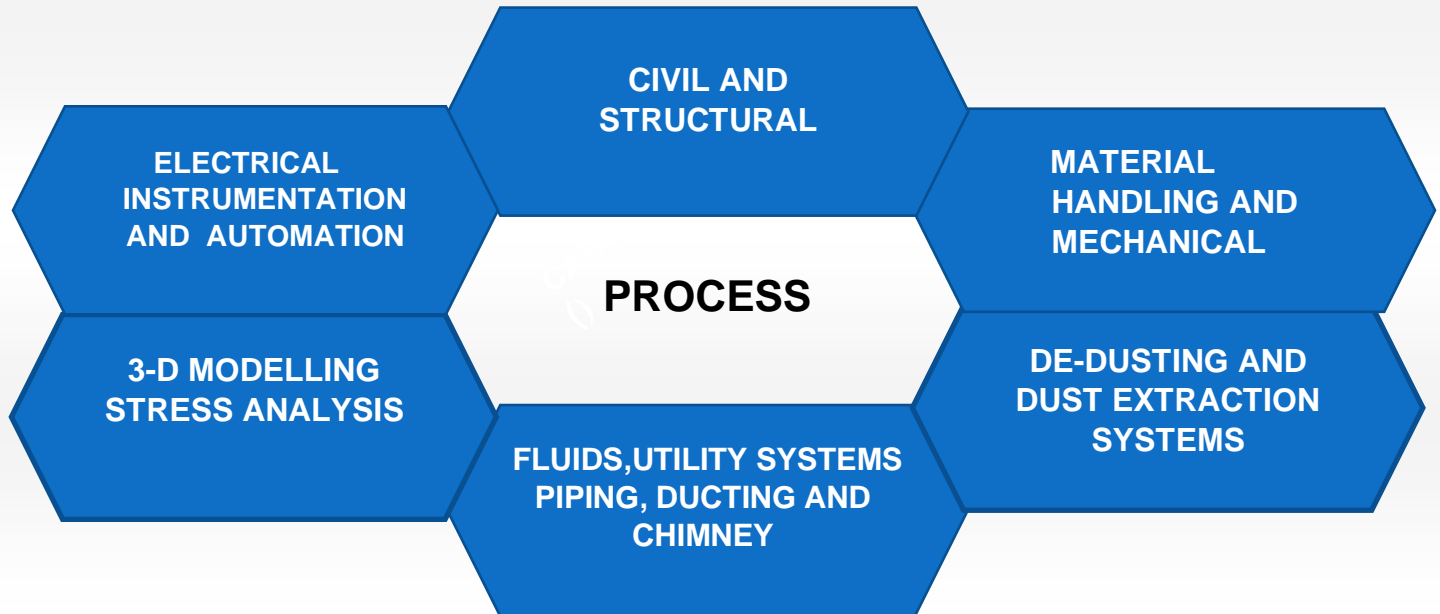
Registered Office: A-1, UPSIDC, Indl. Area, Nandgaon Road, Kosi Kalan, Distt. Mathura (U.P.) - 281403, India • Website: www.jindalsaw.com

CIN: L27104UP1984PLC023979

*SAC Ahmed*  
25/03/2025  
JINDAL SAW LTD.  
25/03/2025



## SEAMLESS INTEGRATED DESIGN AND ENGINEERING SERVICES



## PLANT UNITS

- Raw Material Handling System
- HBS and WGHRs (Piping, Ducting, Chimney and Structural Building)
- Pulverised Coal Injection for BF
- Stock House and Cast House Fume Extraction
- Induction Furnace
- Electric Arc Furnace
- Sinter Plant
- Pellet and Beneficiation Plant
- Gas Cleaning
- Hot Metal Desulphurisation
- Gas Holder and Gas Export System
- Dedusting and Dust Extraction System
- Lime Calcining Plant
- Ductile Iron Pipe Plant



**SPET'S DESIGN FOR HOT BLAST STOVE PROJECT**

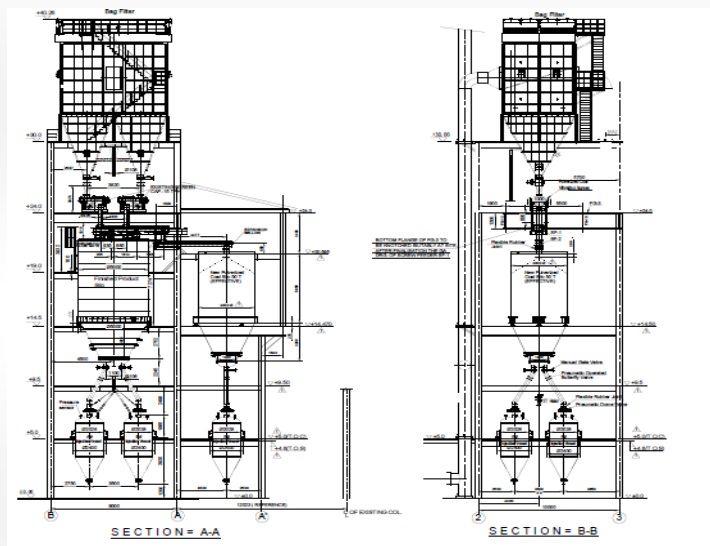


**BLAST FURNACE - HOT BLAST STOVE PIPING**

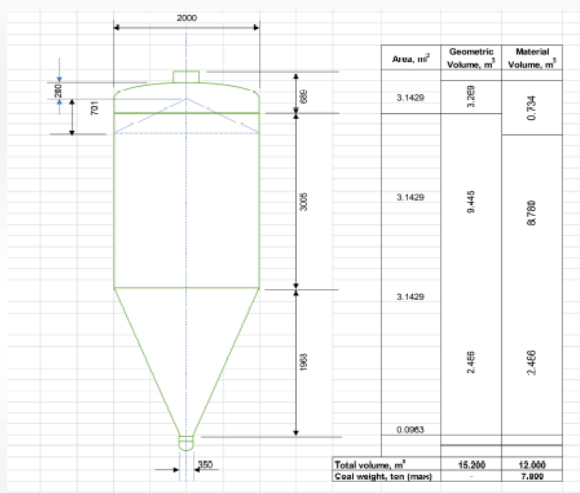
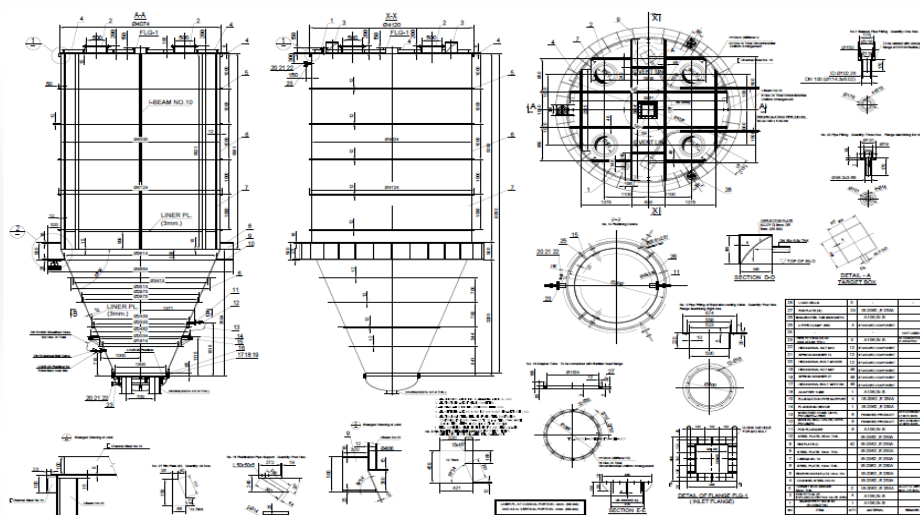


# SPET DESIGN AND ENGINEERING SERVICES (P) LTD

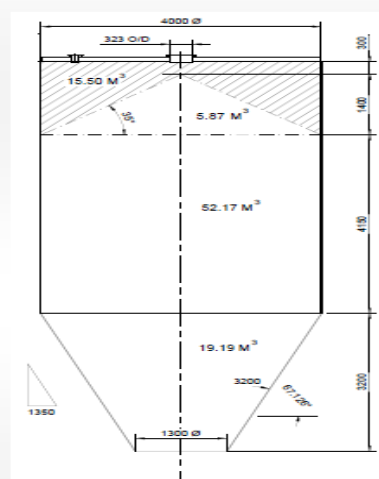
## SPET'S DESIGN FOR PULVERISED COAL INJECTION EXPANSION PROJECT



## SPET'S DESIGN AND ENGINEERING OF PULVERISED COAL SILO AND INJECTION VESSEL



INJECTION VESSEL SIZING

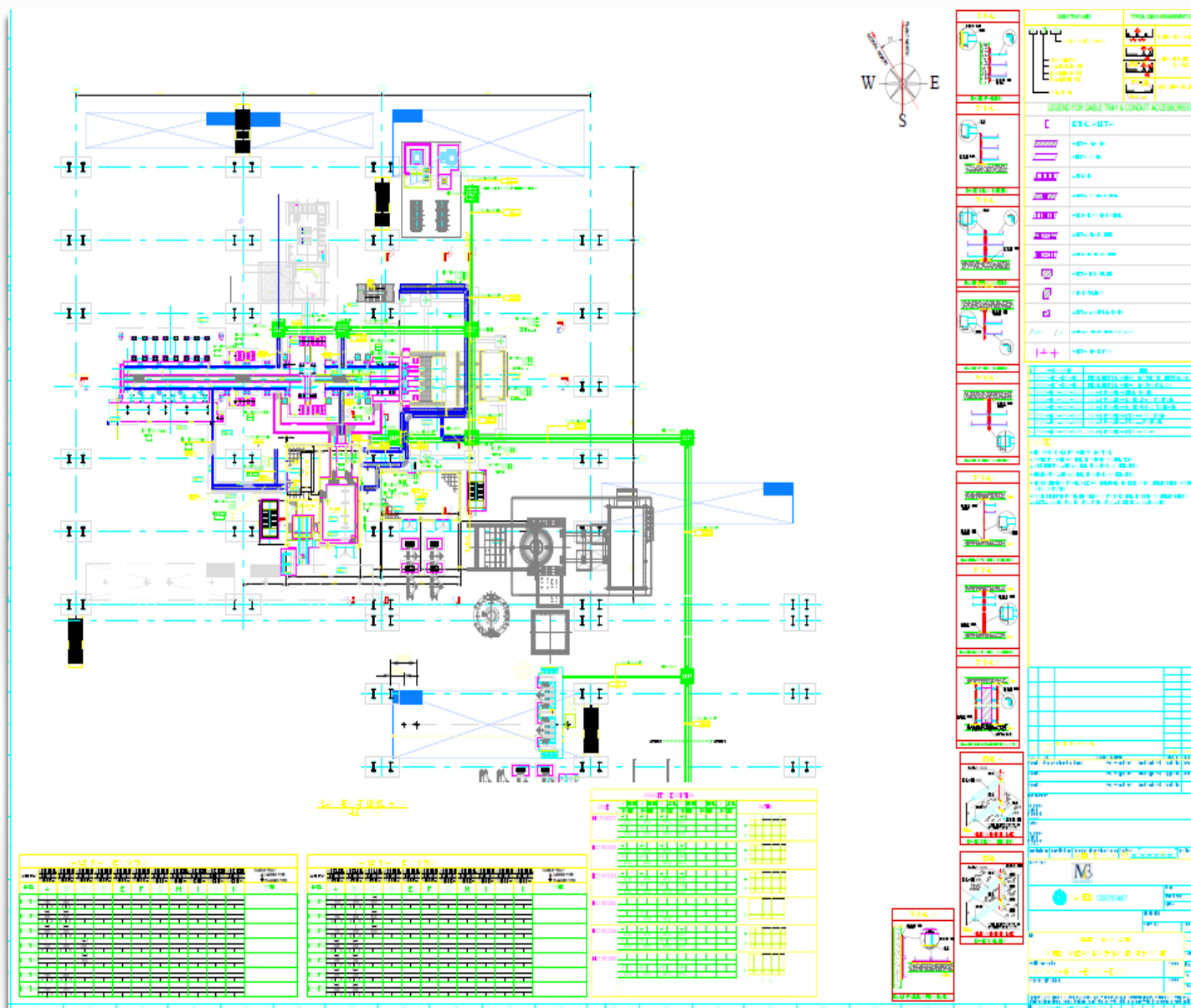


SIZING OF PULVERISED COAL SILO





## ON FIELD CABLEWAYS LAYOUT

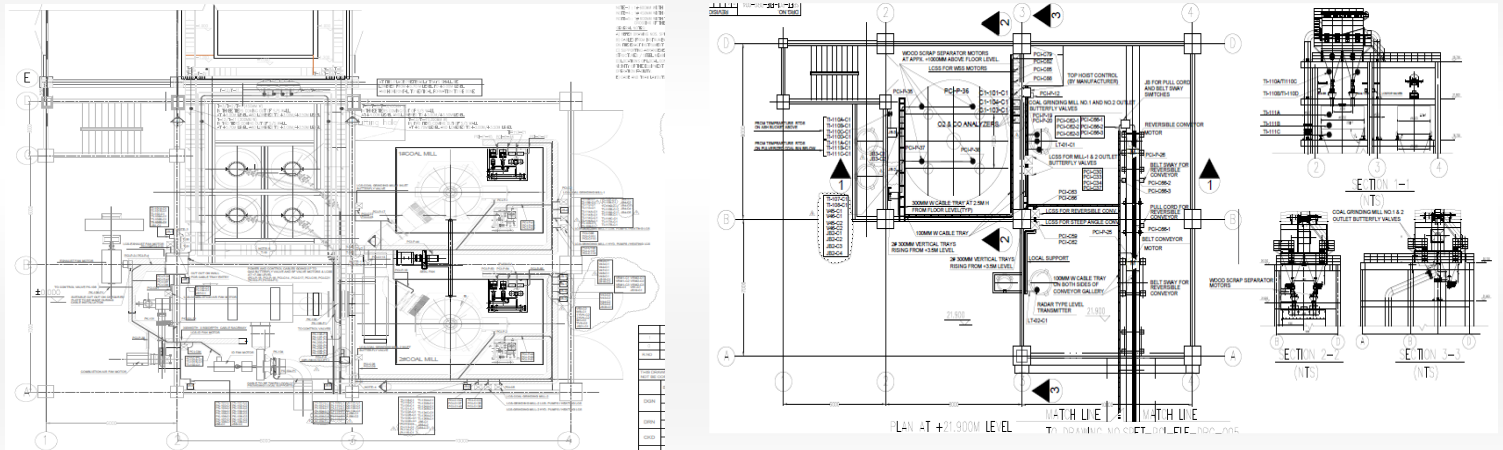




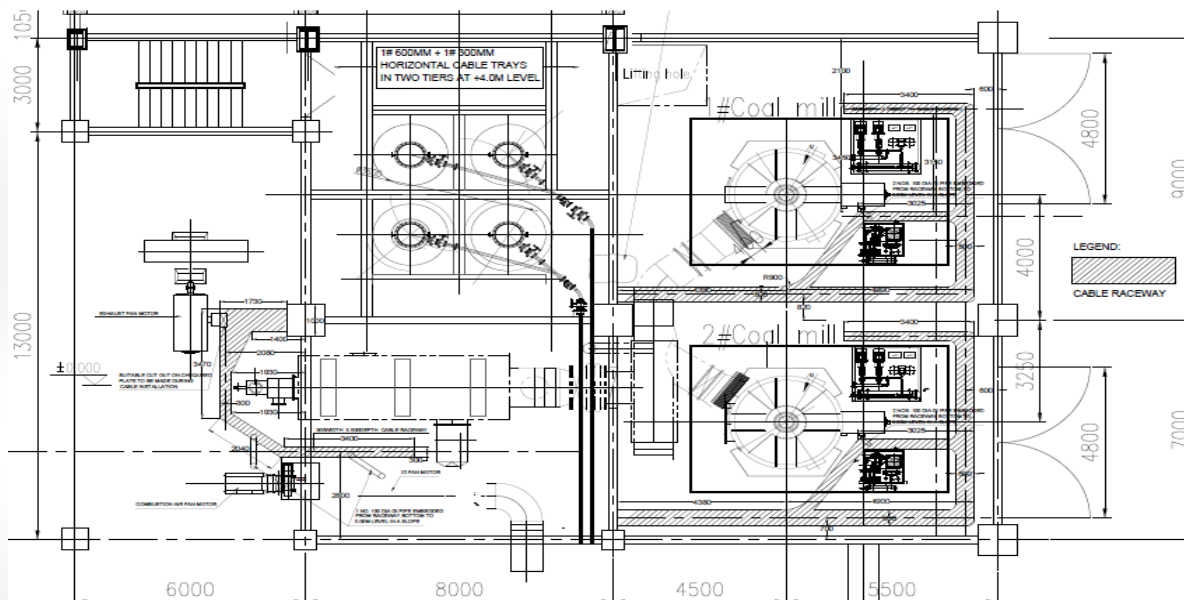
# SPET DESIGN AND ENGINEERING SERVICES (P) LTD

## KIRLOSKAR FERROUS INDUSTRIES LIMITED - PCI PROJECT AT KOPPAL SPET'S ELECTRICAL, INSTRUMENTATION AND AUTOMATION ENGINEERING FOR PULVERISED COAL INJECTION PROJECT

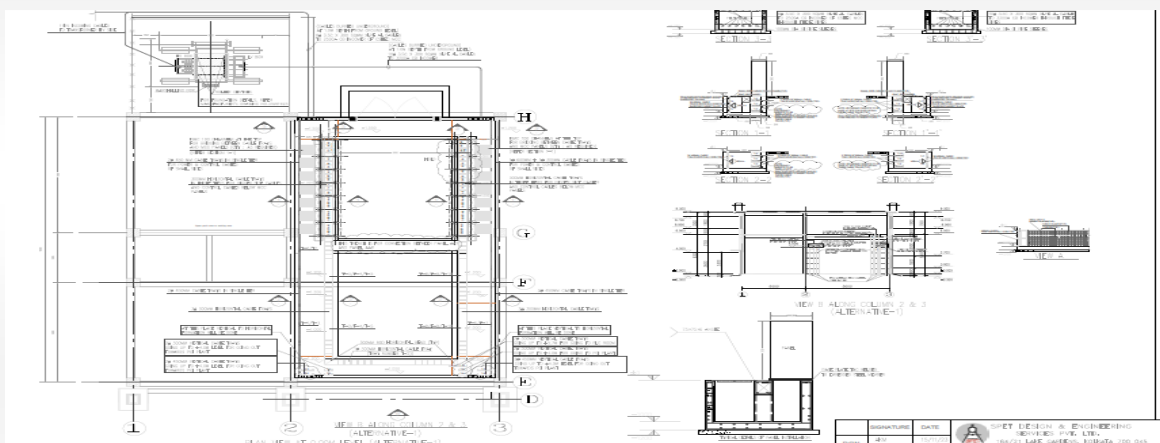
### CABLE TRAY AND CABLE LAYOUT



### CABLE TRENCH CIVIL ASSIGNMENT



### SUBSTATION LAYOUT



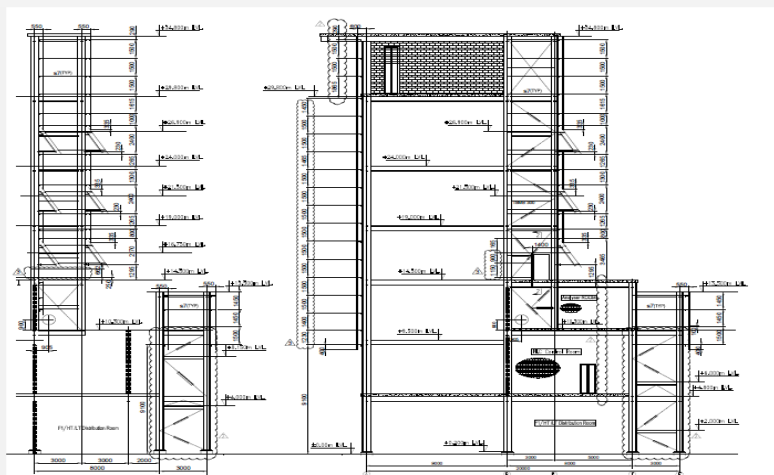


## BASIC ENGINEERING

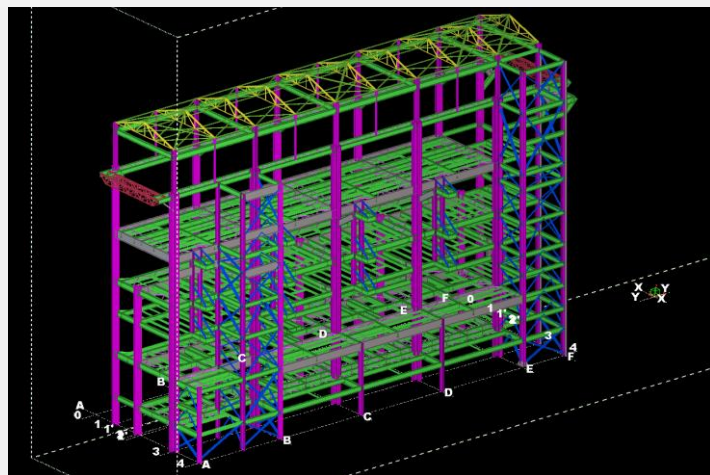
- Process Flow, Equipment List, Equipment Capacities
- Preliminary Drive List, SLD, PFD and P&ID.
- Automation system architecture with I/O List.
- List & Size of Buildings, Utilities & TOP
- Layout and Assignment Drawings, Building GA, Floor Plans, Elevations.
- Motor List and Load data
- Civil load data
- Finalisation of approved vendor list for all packages of the project.

## CIVIL AND STRUCTURAL – DETAIL ENGINEERING

- 3-D Modelling
- Piling, Building and equipment foundation, Civil building, Erection drawings for Civil.
- Structural Design basis, General Arrangement including Fabrication drawings.
- Structural STAAD Analysis report of the Structural Engineering
- Structural Steel and Rebar take off & Quantity Estimation
- Design of Steel, R.C.C and Steel-Concrete Composite framed elements
- Equipment Civil foundation



**PULVERISED COAL INJECTION STRUCTURAL BUILDING**



**BLAST FURNACE: 3-D MODEL OF HOT BLAST STOVE STRUCTURAL BUILDING**



## PROCESS – DETAIL ENGINEERING

- Preparation of the General Layout of the Plant.
- Process design and calculation
- Process Flow Diagram and P&ID
- Equipment 'list, Load list and Instrument list
- Bill of Quantities (as applicable) for Equipment Disposition, Technological Structures, Pipes
- Erection drawings for mechanical, technological etc. which are not provided by vendors but required for execution of the work.

## UTILITY SYSTEM, PIPING AND DUCTING – DETAIL ENGINEERING

- 3-D Modelling
- Design Engineering and calculation and Utility consumers list
- In-shop piping drawings (scheme and detailed with BOQ) up to connection to the equipment.
- Piping Isometric drawings
- Piping BOQ
- Duct stress analysis and fabrication drawings
- Detailed drawings; plans, elevations & sections.
- Pipe Support detail drawings.
- Piping material specification with MOC and BOQ
- Flexible Hose and Expansion joints.
- TBA for valves & components.
- Line list and Valve list
- Thermal insulation specifications
- Painting / Coating requirements
- Erection drawings

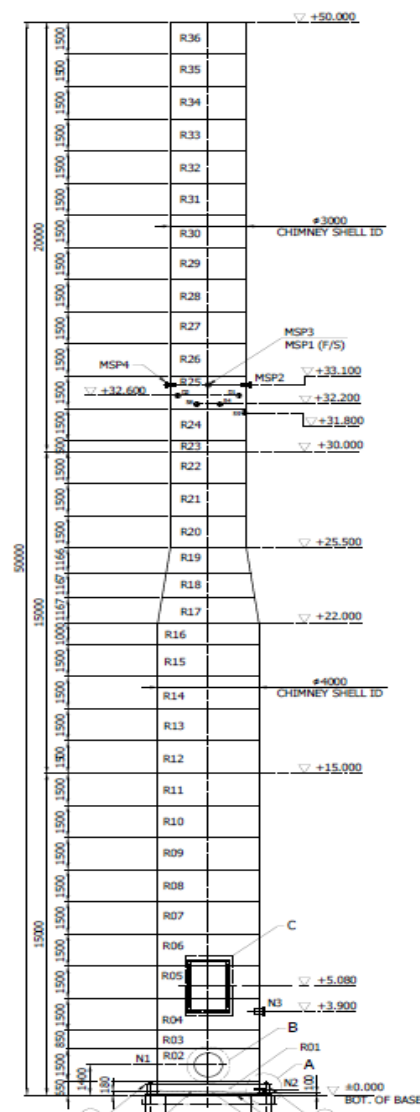


**SPET'S DESIGNED - BLAST FURNACE  
3-D MODEL OF HOT BLAST STOVE  
PIPING**





- 3-D Modelling
- Chimney sizing calculation
- GA and Fabrication drawings
- Bill of Materials
- Civil Load data along with base plate details



**SPET'S DESIGNED - BLAST FURNACE  
HOT BLAST STOVE WASTE GAS CHIMNEY**

- Water Audit.
- Augmentation of Existing Water System.
- Debottlenecking of Existing Water System.
- Zero or Near Zero Liquid Discharge.
- Raw and Waste Water Treatment Systems
- Plant Recirculation Water System.
- WTP, STP and ETP



- 3-D Modelling
- System Layout
- Process Flow Diagram
- Sizing of Mechanical and Material Handling Equipment
- Technical Specifications and scrutiny of Vendors drawings
- Conveyor Profile
- Equipment BOQ
- Sizing of silos and vessels along with GA and Fabrication drawings
- Erection drawings for Material Handling System

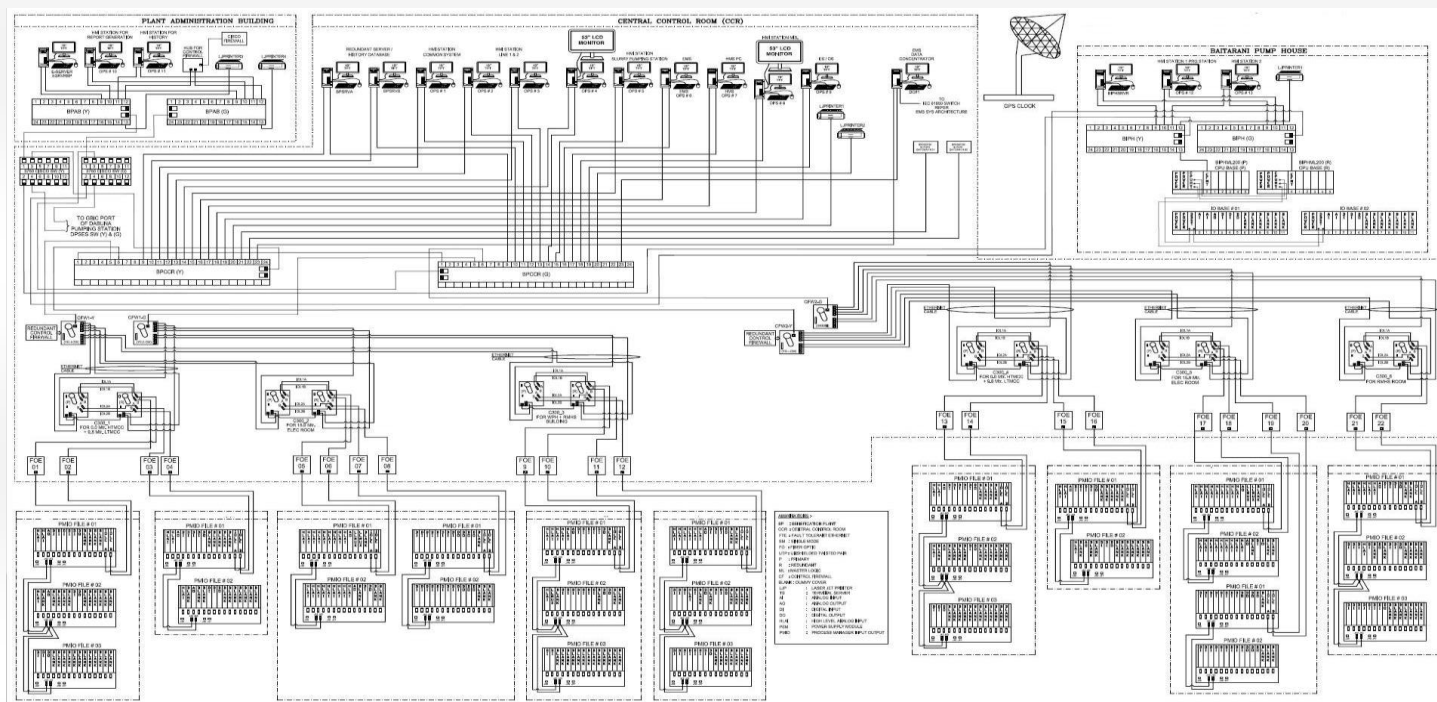
- Detailed SLD
- Engineering with Bill of Quantities for HT and LT Electrical Systems.
- Electrical interlocking scheme
- Transformers, Power Distribution System.
- Plant Illumination System
- Interfacing with Plant Automation System and preparation of Interlocking Schemes
- Cable sizing , Cable Schedules, Cable Routing, Cable Termination, Earthing
- Bill of Quantities for Cables, Cable Trays, Supports, etc. as required.
- Erection drawings for Electrical Systems as required for execution of the work.





## INSTRUMENTATION AND PLANT AUTOMATION – DETAIL ENGINEERING

- Control and measurement loop schemes
- Instrument list
- Instrument Data Sheet and BOQ and Instrument Hook Up drawings
- Engineering and preparation of drawings with Bill of Quantities (as applicable) for Instrumentation & Automation Systems.
- Control room and PLC/DCS room layout
- IO List with IO address
- Automation System Architecture and Detail Engineering of the Automation System.
- Sequential control logic of the plant and participation in the FAT and SAT of the Automation System Software.
- Automation Panel and Hardware Engineering and software development
- Cable Schedules, Cable Routing, Cable Termination and Earthing.
- Erection drawings for Instrumentation System which are required for execution of the work.



**PLANT AUTOMATION – SYSTEM ARCHITECTURE**



## PROCUREMENT ASSISTANCE SERVICES

- Preparation of Technical Specifications and tender drawings.
- Scrutiny of offers against tender documents, preparation of Techno-Commercial Appraisal Report and Estimated Package Cost.
- Assisting Customers for inviting tenders, receiving tenders, price negotiation, placement of orders, Order specification manufacture, follow up with suppliers / contractors for timely delivery / erection of plant and equipment.

## SYSTEM INTEGRATION

- Scrutiny and Approval of Vendor Drawings and accordingly take care of any impact on the technological and building structures and foundations. In case, any inter-connecting of pipes are left out, the drawings of the same shall be prepared by SPET to make the system complete in all respects.
- System Integration between different packages to plug any gap in order to make the system complete in all respects.
- Civil drawings and Building Structural drawings for clash checking.
- Integration of the Level-1 Automation system engineered by SPET with the main Process and Balance of Plant.

## PROJECT MANAGEMENT SERVICES

- Procurement Schedule (MS Project).
- Project Management and Planning of activities.
- Overall monitoring and Control along with subject area experts & Quality Review.
- Delay analysis and Optimisation of completion time.
- Equipment & Manpower Deployment Schedule.

