RESUME

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Summary

Education	Chemical Engineer, **NIT Rourkela** – 2009	
Experience(9 years & 2 months)	Process Engineer –Esteem Project Pvt Ltd.	26 months
	Junior Process engineer- Tamil Nadu Newsprint and paper ltd (TNPL)	11 months
	Assistance process Engineer –Emami Paper Ltd	29 months
	Project Assistance – Institute of Mineral & Materials Technology (IMMT)	22 months
	Production – Jayshree Chemical Ltd	23 months
Summer Training	2 months summer training in "**IOCL PANIPAT**"	

Education

Qualification	Year	Board/University	CGPA/%
B.Tech. in Chemical Engineering	2009	NIT, Rourkela	7.02/10
XII	2004	CHSE(Maharishi college of natural law)	58.0
X	2002	HSE (Capital High School)	77.0

Professional Experience

Process Engineer – Esteem Project Pvt Ltd. **Aug 2017 – Cont…**

Expertise: Fired Heater Design and thermal calculation.

Roles & Responsibilities

- **Process Datasheet, APH Datasheet, Burner Datasheet, FD/ID fan Datasheet, Damper, Venturi and Shoot blower Datasheet preparation.**
- **Datasheet preparation for PG, TG, DG, FT, TT, ANALYSER, TE and SKTC.**

PRE-ORDER ACTIVITIES:

- Studying the tender and carrying out thermal design of Fired Heater and its system in line with the customer specification using Software heater 560.
- Carrying out preliminary mechanical design of pressure parts as per API 530 and preparation of Bill of Materials for estimation.
- Carrying out Heat and mass balance, Pressure drop calculation, heat loss calculation and design of refractory.
- Preparation of General Arrangement drawing and P&I diagram and Techno-commercial offer for submission to customer.
- Involvement in Tendering activities such as preparation Techno-commercial comparison of offers for various items such as industrial fans, dampers, piping support, burners, APH, all instruments items etc

POST-ORDER ACTIVITIES:

- Performance design of Fired Heater and its components and furnishing the details required for preparation of fabrication drawings of pressure parts.
- Preparation of final specifications of bought out components like FD/ID fans, APH, Burner, Soot blowers, Dampers and Control Valves etc. for procurement purpose.
- Checking of drawings of various bought-out items such as Burner, Dampers, Skin Thermocouple, etc and giving them approval.
- Preparation of mechanical datasheets of items such as industrial fans, burner, shoot blower, dampers and all instrument items.
- Checking all instruments drawing ,P&ID drawing, matching will of material and giving them approval from client.

	• **Project Management work like:-** document preparation, upload file, EIL review checking, CSR preparation and pending document preparation.
Activities	• <u>MAJOR JOBS HANDLED</u> • Complete fired heater thermal design, all instrument piping, CFD module preparation for burner and post order documentation of 1 x 10 MMKcal/hr Jubilant Industries Ltd – Gujarat, India . • Complete thermal design for revamping and modification of convection section coil –IOCL, Gujarat. • Complete thermal design ,involve in erection work and NDT activities in CDU, VDU, HCR, FCR, DCU, Hot Oil units in BORL, Bina refinery • Complete thermal design, Pre order documentation of 1 x 0.5 MMKcal/hr Laxmi Organic Industries Ltd, Mumbai, India • Complete thermal design and CFD module design for burner air distribution, APH ducting calculation and post order documentation of 1 x 5.26 MMKcal/hr IOCL ,Panipat & 1 x 6.48 MMKcal/hr ,1 x 16.58 MMKcal/hr IOCL, Gujarat. • Complete thermal design and CFD module design for burner air distribution, APH ducting design and post order documentation of 1 x 9.43 MMKcal/hr and 1 x 3.67 MMKcal/hr IOCL, Gujarat. • Complete thermal design and post order documentation of 1 x 1.57 MMKcal/hr and 1 x 2.13 MMKcal/hr CPCL, Chennai. • Complete thermal design and post order documentation of 1 x 3.56 MMKcal/hr and 1 x 3.71 MMKcal/hr Kerosene plant BORL, Bina. • Complete thermal design and Pre order documentation of 1 x 98.56 MMKcal/hr CCR NHT,Arbor heater BPCL, Mumbai. • Complete thermal design, Modification of radiant section and Post order documentation of 1 x 98.56 MMKcal/hr CCR NHT, Arbor heater BPCL, Mumbai. • Complete thermal design, Modification of convection section and Post order documentation of 1 x 105.56 MMKcal/hr reformer CPCL, Chennai. • Fired Heater Design for foreign county: - Ukraine, Uzbekistan, Singapore, Iraq and Romania. • Provides support to all project activities, from engineering to start-up,
Key Achievements	• **Heater 560, Win-Heat ,HTRI and DWSIM software operation.** • **ASPEN PLUS , ASPEN HYSYS, SIM PRO,CFD ANSYS,PIPENET,FEED, Edraw software knowledge.** • **Codes used :API 560, API 530, ASME,**

Junior Process Engineer – Tamil Nadu Newsprint and Paper ltd .	**Jan 2016-Dec 2016**
Expertise: Operation and process control of DCS (Soda Recovery plant)	
Roles & Responsibilities	• **Lead a team of 35 members** operator, worker and casual labour in individual shift. • **Plant Capacity 1200 T/Day** • Co-ordinate with paper machine1, 2, 3 and pulp mill 1, 2, 3 shift in-charge for good quality. • Responsible for minimize, as efficiently as possible, the loss and subsequent make-up of the chemical.
Activities	• Evaporation, Recovery Boiler, lime kiln, Heat Exchanger, Condenser, compressor and pumps all types of chemical equipment handle in shift. • Every day production meeting to improve quality and plant smooth running. • TPM work to maintain zero breaks down and improving the integrity of production.
Key Achievements	• In Oct 2016 achieve highest production **1245 T/day.** • Member of "Industry Safety Program" in TNPL. • Member of TNPL "Cricket Team" in Staff club.

Assistance Process Engineer – Emami Paper Ltd.	**Sep 2013 – Jan 2016**
Expertise: Operation and process control of DCS (Soda Recovery plant)	
Roles & Responsibilities	• **Lead a team of 20 members** operator, worker and casual labour in individual shift • **Plant Capacity 300 T/Day** • Co-ordinate with paper machine1,2 and pulp mill 1,2 shift in-charge for good quality. • Responsible for minimize, as efficiently as possible, the loss and subsequent make-up of the chemical.
Activities	• Evaporation, Recovery Boiler, lime kiln, Heat Exchanger, Condenser, compressor and pumps all types of chemical equipment handle in shift. • Every day production meeting to improve quality and plant smooth running. • TPM work to maintain zero breaks down and improving the integrity of production.
Key Achievements	• Member of "Institutional Training Programme "on energy conservation organized **by PCRA** • Member of "Emami Jagnnath Temple Co-ordinator" in **Rath Yatra Festival**.

Project Assistance –Institute of Mineral & Materials Technology (IMMT).	**Nov 2011 –Aug 2013**
Expertise: Development model to separate good quality coal by electrostatic separation, Development of technology to produce clean coal from high ash and high sulphur.	
Roles & Responsibilities	• **Purchase** the raw material and design a tribo-electrostatic separator**.** • Collect the different type of coal sample from different part of Odisha mines. • **Lead a team** of **10**, members to carry out the project.
ctivities	• Washability study & analysis, Flotation, Gravity separation technique. • Electrostatic separation & magnetic separation process used for get good quality coal.
Project	• "Tribo-Electrostatic Beneficiation of high ash coking coal" (GAP-230), Sponsored by **CMPDI**. • Development of technology to produce clean coal from high ash and high sulphur Indian coal, Sponsored by **Ministry of Steel, New Delhi.**
Key Achievements	• Get a good quality coal by electrostatic separation and save around 20% water. • Electrostatic separation is less water pollution and less mineral waste process. • High quality sulphur in Indian coal found which is less calorific value and more pollution.

GET – Jayshree Chemical Ltd.	**Jan 2010 – Nov2011**
Expertise: Manpower Planning and Coordination, Working in Cross-Functional teams, Production Planning.	
Shift-in-Charge – Caustic Soda Plant	
Roles and Responsibilities	• **Lead** a cross functional team of **35 employees** & other key stakeholders in a plant of 150T/day capacity • Plan, schedule and manpower allocation of plant personnel for maintenance and operational activities. • Number of chlorine cylinder dispatch and received in every shift to be calculated.
Key Achievements	• Plant Safety member's team in any emergence situation. • Selected as the **"Best Team Leader"** in Operations Department among 12 peers.

Positions Of Responsibilities	
KEY SKILLS	Basic knowledge of **"ASPEN HYSYS", "ASPEN PLUS","HEATER 560", CFD ANSYS,FEED, DWSIM, HTRI, SIM-PRO, Edraw,** Heater Datasheet preparation, Sketch and Plan View, MTO Preparation**,** process flow diagram, FEED for new heater, simulation and property analysis. **PFD, Process block diagram** in **EXCEL** , Mass Balance ,Water balance and Energy balance.
NIT, Rourkela	Core Committee member, Annual Tech Fest
	Student Representative, Dept. of Chemical Engineering
	Boys Hostel Annual sport Representative.

Nayan Kumar Behera