

Sonu Kumar

sonu.kr80@yahoo.com | 9265251342 | D.O.B: 28-02-1995

Degree	Board/University	Institute, Location	% /CGPA	Year
B.E.(Chemical Engineering)	Jadavpur University	Jadavpur University, Kolkata	7.70	2017
Class XII	CBSE	DAV Public School , Patna	86.6	2012
Class X	CBSE	DAV Public School, Muzaffarpur	10	2010
NOTABLE ACHIEVEMENTS				
<ul style="list-style-type: none">· Won 1st Prize in Chem-E-Car competition organized in our department.· Scored AIR 295 & 417 IN GATE CHEMICAL ENGINEERING IN 2017 & 2018 respectively.· Won 2nd prize in Chlorine Safety Competition organized by RIL VMD.				
PROJECTS/TRAININGS				
RIL	➤ Prepared a project report on “ Chloride balance in ETP Plant ” and found the sources responsible for higher chlorides in effluent water.			2017
DPL	➤ Underwent Summer training at Coke Oven Plant .			2016
Jadavpur University	➤ Prepared a project on “ Seasonal variation of quality of Pond water ” and listed out all the various parameters which have seasonal influence and the possible factors causing them.			2016
RIL	➤ Development of PDP for upcoming MCC project.			2021
	➤ Relief load calculation & PSV adequacy checking for CDU/VDU & SGCU 380 kbpsd revamp.			2022
WORK EXPERIENCE				
Reliance Industries Limited(Manager, Special Task Force)			23 July 2021 to Present	
Responsibilities	<ul style="list-style-type: none">➤ HMB preparation & Equipment Sizing based on various API/ISA/ISO standards.➤ PFD development using MS VISIO.➤ Sensitivity analysis & Optimization study for reaching at the optimum result.➤ Technical report writing.➤ PSV & relief header adequacy checking for revamp studies as per API 521/520/526.➤ Heat exchanger design, rating & simulation study for various cases using HTRI/EDR.➤ Process simulation & modelling using Aspen Plus/HYSYS & KBC Petrosim.➤ Perform Debottlenecking study & adequacy checks for columns, vessels, pumps, control valves & heat exchangers.➤ Detailed hydraulic study using Pipenet and FluidFlow software.➤ Flare system design and adequacy checking using Aspen Flare System Analyzer.➤ Compressor surge analysis and depressuring study using Aspen HYSYS Dynamics.➤ Preparing VBA enabled excel templates for various use cases.			

WORK EXPERIENCE

Reliance Industries Limited(Manager, Operations ,SEZ PCG)

17 July 2017 to 20 July 2021

Responsibilities

- Issuing **Work permits, isolating lines & faulty equipments** and undertaking field rounds to ensure full compliance of HSE rules.
- **Analysis** of Process parameters in my designated work area, finding variance & troubleshooting.
- **Leading** a team of 5 **Field Executives** to execute all possible jobs during my shift and to ensure efficient **HOTO** takes place during shift change over.
- Organizing **Mock drills** and giving **plant specific training** to contract workers.
- Maintaining **Chemical inventory** by raising PR and reservations through **SAP**.
- Studying **P&ID, HMB, CET & Control narratives** and leading small process studies to discover **efficiency** and **optimization** opportunities to propose them to Operations and Managements. Performing **MOC, PSSR and PHA analysis**.

Skills

- **Operational Experience:** I have operational experience of **Gasification** of more than **3** years where I have learned the nuances of successfully running a process plant. I possess an excellent hands-on experience of operating and troubleshooting **Rod mills, Cyclones, Centrifugal pumps, Diaphragm PD pumps, Blowers, LRC & Compressors**. I also have 6 months operational experience of running an **ETP** plant.
- **Technical Skills:** **Process simulation** using Aspen plus, **Heat & Material balances**, Utility calculations, **Performance analysis** of Heat Exchangers using **HTRI** , Pumps, Compressors, **PSV & Hydraulic calculations**.
- **Data Analysis:** I work on **Excel** coupled with **Aspen IP21** to make daily reports, analyze process parameter trends, study variances and predict possible future malfunctions. I am also proficient in **SQL & PowerBI** for data querying and data visualization.
- **Team Leader:** As a Shift Engineer I had lead a team of **5** Field Executives and manage on an average **20** contract workers in each shift to carry out operational & maintenance activities.
- **Flexible:** As an SFE I have experience of working in all 3 shifts and performing both managerial and technical roles. I execute engineering tasks as well as supervise contract workers.
- **Computer Proficiency:** Comfortable in working with **Microsoft Excel, PowerPoint & Word**. This involves making daily reports, current equipment status, equipment changeover etc.
- **Collaborative Attitude:** As an SFE I used to collaborate with **Maintenance Engineers** (Electrical, Mechanical and Instrument) , **Safety & Fire dept.** and **SS** to carry out daily jobs.
- **Commissioning & Pre-Commissioning :** I am familiar with **Loop Cleaning, Loop Checking , Mechanical Clearance & Equipment Proving**.
- **AI/ML:** I am quite proficient with all popular **ML algorithms** and its pythonic implementation using **Scikit learn** library. I have done end to end implementation of some **kaggle** use cases using various ML algorithms. I am also familiar with **ANN** and its implementation using **Keras** and **Tensorflow**.

Certifications	<ul style="list-style-type: none">➤ Python for Data Science & Machine Learning (UDEMY).➤ Machine Learning A-Z (UDEMY).➤ Six Sigma Yellow Belt (R-University).➤ PSM White Belt (R-University).➤ Radiation Safety (BARC)➤ Process Hazard Analysis (R-University)➤ Advanced Excel (UDEMY)➤ Google Data Analytics Professional Certificate (Google)
Hobbies & Interests	<ul style="list-style-type: none">➤ Reading books➤ Cycling & Jogging➤ Cooking
Languages	<ul style="list-style-type: none">➤ English➤ Hindi