



## Summary

Innovation-driven leader with 8+ years of experience in a Fortune 500 Oil & Gas company, leading mission-critical operations and breakthrough initiatives. Recognized for pioneering solutions that enhanced efficiency and resilience. Skilled at driving cross-functional teams, navigating crises, and delivering lasting impact. Combines deep technical insight with strategic execution to create scalable improvements in complex, high-stakes environments.

## Professional Experience

### Assistant Manager (Production) | Indian Oil Corporation Limited | Haldia Refinery

- Managed 24×7 operations of the Delayed Coker Unit (DCU) and LPG Treatment Unit (LPGT) as Shift, Field, and DCS-Incharge; led a 12-engineer and 21-engineering-assistant team, ensured environmental emission compliance, and coordinated with multiple departments to sustain critical refinery operations.
- Led emergency response in 2023 to isolate a hazardous process upset, preventing permanent equipment failure and a month-long outage; action averted a Gross Refinery Margin loss of ₹600 crore and earned the Samuhik Upalabdh Award.
- Pioneered the first-ever “Online Spalling” procedure in Haldia Refinery’s DCU, eliminating 10-day shutdowns every 4 months; boosted unit availability from 92% to 100% and delivered an annual Gross Refining Margin improvement of ₹23 crore.
- Successfully executed the first-ever 2-month Maintenance & Inspection Shutdown of Delayed Coker in 2024 with zero safety incidents; authored comprehensive SOPs and manuals to institutionalize best practices and improve training effectiveness.
- Implemented an alternate Reduced Crude Oil processing strategy, optimizing unit operations and pushing unit throughput beyond 105% of design capacity — the highest ever achieved at Haldia Refinery.

### Senior Production Engineer | Indian Oil Corporation Limited | Haldia Refinery

- Played a pivotal role in commissioning Haldia Refinery’s ₹2,500 crore Distillate Yield Improvement Project (DYIP), increasing refining capacity from 7.5 MMTPA to 8.0 MMTPA (~7% enhancement).
- Took over execution and commissioning of DYIP in 2018 after LSTK contractor bankruptcy; collaborated with Indian Oil’s in-house team to salvage project timeline and successfully commissioned the unit in September 2019.
- Coordinated with licensors, OEMs, and internal experts for interlock checks, equipment trials, and audit documentation to ensure operational readiness.
- Conducted statutory compliance checks with IBR, OISD, PESO, and Inspector of Factories before mechanical completion; ensured Zero-Liquid-Discharge and MINAS-compliant emissions during post-commissioning operations.
- Trained 11 engineering assistants and authored complete sets of SOPs, Operating Manuals, and Emergency Procedures for the operating units and Rainwater Management System.

### Process Engineer | Indian Oil Corporation Limited | Haldia Refinery

- Monitored and optimized 8 critical refinery units including Hydrocracker and Hydrogen Generation Units; led technical performance evaluations and operational planning.
- Commissioned and stabilized the ₹150 crore Feed Preparation Unit (FPU), one of Indian Oil’s first in-house engineered process units; simulations via Pro-II and HTRI led to ₹80 crore/year Gross Refining Margin improvement, achieving payback within 2 years.
- Identified catalyst degradation in Hydrogen Generation Unit; pre-emptive action averted indefinite refinery shutdown and saved potential Margin loss of ₹17 crore/day; coordinated with licensors and OEMs for procurement and troubleshooting.
- Performed furnace efficiency calculations; implemented process changes that enhanced FPU and Hydrocracker furnace efficiency from 89% to 91%.
- Devised an alternate operation strategy post key equipment failure, maintaining throughput for 6 months and enabling Haldia Refinery to meet FY 2017–18 MoU target of 8 MMTPA crude processing.

## Education

Bachelor of Engineering (Chemical), Jadavpur University, Kolkata

## Accomplishments and Awards

- Performed an unconventional procedure at Indian Oil, Haldia Refinery to protect defective equipment, preventing unit shutdown and earning the Special Recognition Award, Haldia Refinery (2024).
- Led emergency response at Indian Oil, Haldia Refinery, averting major financial loss (~600 crore) and securing the Samuhik Upalabdhi (Group Recognition) Award, Haldia Refinery (2023).
- Promoted to Assistant Manager within three years at Indian Oil for exceptional project execution and performance (2021)
- Promoted to Process Engineer within 1 year at Indian Oil with “Excellent” Rating (2017).
- Secured All India Rank 246 in GATE 2016 (Chemical Engineering).

## License & Certifications

- KPMG Lean Six Sigma Green Belt
- Certified First Aider – St. John Ambulance Association
- Excel Skills for Business (Advanced) - Macquarie University
- Pre-MBA Statistics – Indian Institute of Management, Ahmedabad

## Co/Extra-curricular

- Organized the first techno-cultural fest at St. Thomas’ Church School.
- Received 1<sup>st</sup> prize in Webpage Designing Competition at St. Thomas’ Church School’s techno-cultural fest.
- Received Gold Medal for ranking 1st in Kolkata and 445th in India in National Science Olympiad (NSO), 2007