

# Ritika Sharma

Industrial & Production Engineer — Data-Driven Process Optimization  
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Jalandhar, India

## PROFESSIONAL SUMMARY

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- Industrial and Production Engineer skilled in **process optimization, operations management, quality control, and production scheduling**.
- Experienced in MATLAB, Ansys, and engineering analytics through research at IIT Ropar and Expert International.
- Proficient in **lean manufacturing, Six Sigma methods, continuous improvement (Kaizen), root cause analysis (RCA), and statistical process control (SPC)** with ability to combine engineering and data analytics for manufacturing efficiency and reliability improvements.

## EDUCATION

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- **NIT Jalandhar**, B.Tech in Industrial and Production Engineering *Aug 2021 – May 2025 (expected)*
- **Shifaly International School, Ludhiana** *2021*

## SKILLS

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- **Engineering Tools:** MATLAB, Ansys, AutoCAD, CAD/CAM
- **Concepts:** Production Planning & Scheduling, Quality Control, Lean Manufacturing, Six Sigma, Process Improvement, **Continuous Improvement (Kaizen), Root Cause Analysis (RCA), Statistical Process Control (SPC)**, Operations Management, Manufacturing Systems, Reliability & Maintenance Planning, Simulation
- **Data Tools:** Python, SQL, Power BI, Excel (Pivot, VLOOKUP, Forecasting)

## PROJECTS & RESEARCH

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- **Hydrogen Production Simulation – IIT Ropar:** Modeled hydrogen generation using MATLAB/Ansys; developed solar-electric conversion models with 12% improved simulation efficiency.
- **Smart Farming Optimization – Expert International:** Conducted field/lab analysis for precision agriculture; optimized laser-assisted land leveling with 15% higher accuracy.
- **Production Optimization Case Studies:** Applied lean tools and operations research methods to improve process flows and reduce waste in manufacturing simulations.
- *Additional Skills Projects:* Built dashboards (Walmart, Netflix, Loan Risk) using Python/Power BI to demonstrate integration of **engineering insights with data analytics**.

## CERTIFICATIONS

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- Introduction to Analytics – Great Learning
- SQL for Data Science – Coursera
- Getting Started with Power BI – Microsoft Learn
- Lean Six Sigma White Belt – (In Progress / To be Completed)

## LEADERSHIP

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- Secretary – Industrial Engineers Society (2024): Led 4+ events and 2 industrial visits for 100+ students.