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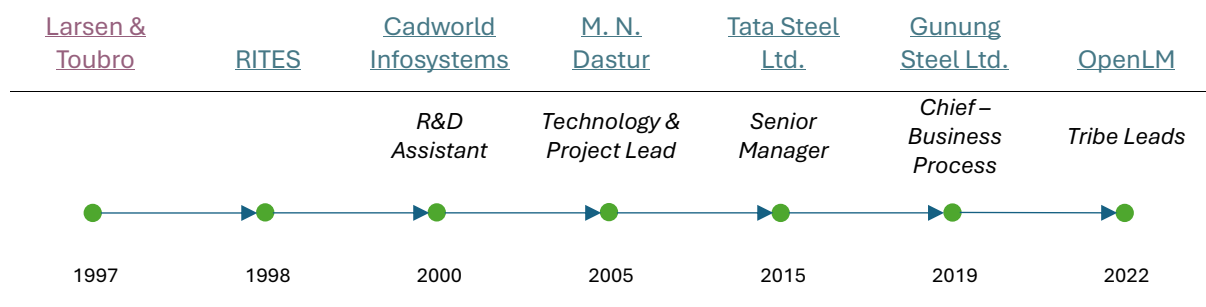
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Engineering Automation & Digital Transformation Leader | Author of Mastering 3D Plant Engineering | SaaS Strategy | AI/ML | 27+ Years | India | SEA | Global

"I build digital bridges between engineering and business : simplifying real-world complexity into scalable systems aligned with strategy."

Career Timeline



Executive Summary

Engineering leader with 27+ years of experience across India and Southeast Asia, driving enterprise digital transformation in engineering, steel, manufacturing, and SaaS domains. Track record includes launching AI/ML-based procurement systems, pioneering drone/BIM/GIS automation, and scaling analytics architecture. Skilled at building global teams and delivering measurable, scalable change.

Professional Summary

Global transformation leader with SaaS and heavy industry expertise. Experienced in AI driven analytics, predictive procurement, drone-based engineering, BI, BIM and ERP automation. Known for scaling teams, optimizing operational costs, and aligning technology with strategic business outcomes.

Educational Qualifications

- Master's in Computer Application
- Post Graduate in Information Technology
- Bachelor of Arts
- Diploma in Civil Engineering
- Diploma in Transport Management







Certifications

- Six Sigma Green Belt
 - ESRI GIS Certification
 - AI, BI, ML, RPA Certifications
 - PMP (35 PDU)
 - Advanced CAD & LISP Automation
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Key Competencies & Areas of Impact

- AI/ML-Driven Decision Making
 - Procurement Analytics & Cost Modelling
 - Streaming Data Pipelines (Spark, Kafka, Airflow)
 - Drone, GIS, BIM, Remote Sensing & Digital Twin Automation
 - ERP Digitization & SaaS Architecture
 - RPA & Document Process Flow Automation
 - Global Team Leadership & Stakeholder Engagement
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Significant Highlights

-  Delivered 30% cost reduction in cloud infrastructure via architecture redesign
 -  Launched predictive procurement system that forecasted scrap price & FX, saving ~\$1M annually
 - Spearheaded drone-based 3D modelling at Tata Steel for the first time in industry history
 -  Introduced Satellite Based imagery and Aerial Photography for 3D modelling first time in world history with Google
 -  Scaled OpenLM engineering teams from 3 to 85 across 4 product lines
 -  Built real-time BI infrastructure using Spark, Airflow & Kafka
 -  Authored Mastering 3D Plant Engineering, Digitalisation & Automation, a first of-its-kind applied guide
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Notable Projects

- AI-driven scrap procurement optimization: global supplier analysis with predictive ML dashboards
 - Drone-based 3D engineering modelling across Tata Steel refining sites (> 800 acres)
 - Real-time streaming analytics pipelines for SaaS dashboards in OpenLM
 - GIS/BIM-driven rework reduction and faster engineering decision-making at Dastur & Tata
 - Digital twin & photogrammetry integration for Google 3D Maps (Cadworld photogrammetry project)
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Professional Experience

[OpenLM, India](#)

Tribe Lead *(September 2022 – Present)*

- Transformed monolithic product to microservice-based SaaS platform
 - Integrated AI/ML-based license forecasting and quick-time analytics
 - Implemented data pipelines using Apache Spark, Apache Airflow, Kafka, and NiFi
 - Led Indian operations scaling from 3 to 85+ across engineering and support
 - Built Power BI, Superset, and QuickSight dashboards for customers
 - Reduced cloud infrastructure spend by 30%
 - Reduced Apache infrastructure spend by 70% introducing Raspberry Pi based clustering
 - Achieved GEM certification for government contracts
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[Gunung Raja Paksi, Indonesia](#)

Head – Business Process *(January 2019 – September 2022)*

- Transformed 50-year-old steel plant into a public company with modern digital backbone
 - Developed ERP workflows across 25+ departments using SAP and Oracle
 - Built C-level dashboards integrating finance, HR, production, and maintenance
 - Enabled QR-code inventory tracking and mobile asset management
 - Introduced analytics-driven procurement intelligence:
 - Developed predictive models for scrap metal pricing and FX rate impact
 - Proposed global sourcing strategy based on historical + forecast data
 - Delivered dashboards for real-time scrap cost optimization and location-based sourcing
 - Introduced AI based Scrap metal grading procedure for fair pricing to suppliers
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[Tata Steel, India](#)

Senior Manager – Virtual Engineering & Business Process *(May 2015 – December 2018)*

- Pioneered Tata Steel's first-ever drone-based 3D modelling system for brown field plant engineering, production capacity expansion and maintenance: reducing planning time and enhancing asset visibility
 - Implemented BIM, GIS, photogrammetry, and VR workflows
 - Introduced LiDAR technology into Steel plant for quick modelling
 - Reduced rework and turnaround time in engineering by 20%
 - Built CAD automation tools using AutoLISP for rapid drafting
 - Applied Industry 4.0 tech to improve QA and control systems
 - Collaborated with vendors to adopt digital engineering workflows
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[M. N. Dastur & Co. Pvt. Ltd., India](#)

Technology Lead – Engineering Systems *(April 2005 – April 2015)*

- Standardized 3D BIM workflows and integrated DMS engineering systems
- Cut engineering delivery cycle by 30% via design automation

- Spearheaded enterprise-wide GIS/CAD deployments
 - Designed training programs adopted company-wide
 - Introduced In-House developed, customized Document & Cad Management System into 60 years of legacy engineering workflow
 - Introduced In-House developed security system
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[Cadworld Infosystems Pvt. Ltd., India](#)

Research & Development Assistant – CAD/GIS Automation *(April 2000 – March 2005)*

- Led 30-member photogrammetry team contributing to Google 3D Maps of Copenhagen
 - Oversaw entire geospatial production chain:
 - Flight path design
 - Aero triangulation
 - Vector data capture
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 - 3D modelling
 - Orthophoto generation
 - Developed AutoLISP and DCL automation tools for civil CAD
 - Delivered 3D GIS mapping services to global infrastructure firms
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Early Experiences

[RITES Ltd.](#) *(1998 – 2000)*

- Engaged in automation of irrigation gate opening
- Automated plotting and feature extraction systems using Digital Theodolite data, reducing manual effort by 50%
- Trained 50+ engineers in CAD automation techniques

[Larsen & Toubro – ECC Group](#) *(1997 – 1998)*

- Supported EPC execution at India's largest greenfield refinery, focusing on concrete structure alignment and layout precision
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Technology Implementation & Innovation

- **Streaming Data Pipelines:** Apache Spark, Apache Airflow, Kafka, NiFi
 - **AI/ML Models:** Python, R, Azure ML Studio, NLP
 - **ERP + RPA:** SAP, Oracle, UiPath, Power Automate
 - **Engineering Tools:** AutoCAD, Revit, BIM, GIS, Drone Modelling
 - **SaaS Platform Stack:** AWS, Docker, Kubernetes, Microservices
 - **Dashboards & BI:** Power BI, Superset, QuickSight, Tableau
 - **Docs & Compliance:** SharePoint, DocuSign, custom DMS indexing
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Publications & Authorship

Author of Mastering 3D Plant Engineering, Digitalisation & Automation — a field guide that blends engineering fundamentals, digital workflows, and automation insights.

- ◆ Covers 3D modelling, drone scanning, BIM, and automation strategy
- ◆ Used by plant engineering professionals, digitization consultants, and CIOs

📖 [Amazon: B0F7M239VJ](https://www.amazon.in/dp/B0F7M239VJ) | 🌐 3dplantengineering.com | 🌐 soumenroy.com/publications

Professional Traits

- Strategically driven and execution focused
 - Strong communicator with cross-functional leadership
 - Ethical and transparent team mentor
 - Results-oriented innovation mindset
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Leadership Style

- Builds empowered, outcome-driven global teams
 - Provides structure while encouraging agile innovation
 - Creates strong alignment between product vision and execution
 - Stands out by delivering measurable impact across tech-function-business interface
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Geographic Experience

- 🇮🇳 **India:** OpenLM, Tata Steel, M. N. Dastur, Cadworld
 - 🇮🇩 **Indonesia:** Gunung Raja Paksi
 - 🇨🇦 **Canada:** OSIG
 - 🌐 **Global:** SaaS, analytics, and engineering delivery
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Language

- English
- Hindi
- Bengali