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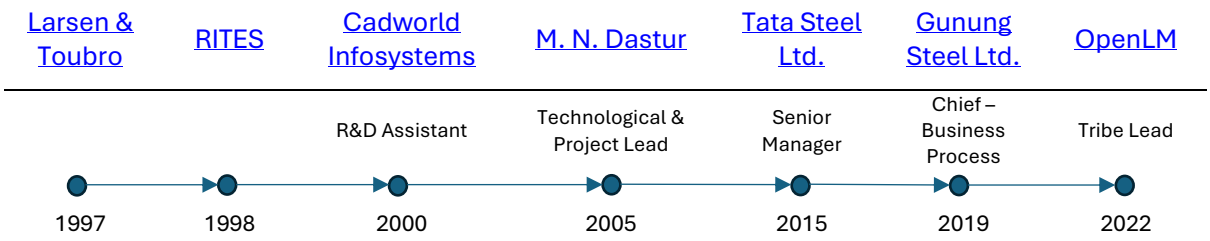
Engineering Automation & Digital Transformation Leader | Author of *Mastering 3D Plant Engineering...* | SaaS Strategy | AI/ML | 27+ Years | India | SEA | Global

"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

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

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

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)

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

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 Cad Management System into 60 years of legacy engineering workflow

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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

  - 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 | 🌐 3dplantengineering.com

Professional Traits

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

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

Language

- English
- Hindi
- Bengali
