

# Mairpady Adithya Rao

*M.Sc. Production Systems Engineering / B.E. Mechanical*

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 Date of Birth : 26<sup>th</sup> October 1990  
 Nationality : German



Process & Industrial Engineering Professional with over 10 years of experience driving digital transformation and operational excellence in automotive and heavy machinery production. Specialized in Lean, line balancing, and digital transformation, with a strong track record in efficiency improvement and cross-functional collaboration.

**SKILLS:** Industrial Engineering | Automotive Process & Production Planning | Project Management PMP® | Lean Management | Operational Excellence | New Product Integration & Line Balancing | MTM C-Werte

## PROFESSIONAL EXPERIENCE

**solvenext GmbH**

*Düsseldorf, Germany | Jan 2021 – Present*

**Consultant Process & Industrial Engineering**

*Projects for Mercedes-Benz AG – Sprinter Vans:*

- **NPI & EOP Integration (IPV Workshops):** Facilitated New Product Introduction (NPI) and End-of-Production (EOP) projects and IPV workshops, documenting, analyzing, and line-balancing assembly workflows to ensure smooth production and seamless integration of new and future product scenarios.
- **ILB & MTM Process Optimization Expert:** Served as ILB & MTM Subject Matter Expert, engaged in 40+ continuous improvement workshops and conducting 1000+ process validations; translated worker feedback into actionable improvements and implemented optimized line balancing for maximum efficiency.
- **Lean-Based Assembly & Bottleneck Optimization:** Analyzed assembly lines using Lean methodology, identified and evaluated bottlenecks, assessed SA order changes, and proactively prevented high-drift scenarios to ensure stable production flow and efficient workforce deployment.
- **Production Scenario & Capacity Planning:** Evaluated complex production scenarios—including model mix, future product launches, model changes, and sales forecast variations—to achieve target capacity, OEE, and uninterrupted production performance.
- **Digital Transformation, KPI Management & Cost Savings:** Established KPI frameworks and visual dashboards for Lean initiatives and Takt logic; facilitated 3D Material Zone Plans, Digital SOPs, and GeoAP visualizations, delivering data-driven decisions and seven-figure annual savings through optimized production and workforce planning.

**Mercedes-Benz AG – Sprinter Vans i.A.v. Hays Prof. Solutions**

*Düsseldorf, Germany | Mar 2019 – Jan 2021*

**MTM Process Engineer, Automotive Assembly Planning**

- **Assembly Line Optimization & Process Standardization:** Optimized the Mercedes-Benz Sprinter assembly line using MTM (C-Values), work sampling, spaghetti diagrams, and Lean/NLC principles, performing line balancing, workstation assessments (eHPV, MV, Drift), workflow standardization, and variant analysis.
- **MTM & ILB Expertise in NLC Workshops:** Served as subject-matter expert in 30+ New Lean Concept workshops, driving process improvements, standardization, and optimized assembly workflows (AVO) across Trim, Interior, Marriage, Powertrain, and Pre-Assembly.
- **Cross-Functional Collaboration:** Coordinated with engineering, production, and logistics teams to ensure compliance with Mercedes-Benz production standards and successful implementation of process improvements.
- **Production & Cost Efficiency:** Channelled efficiency, cost reduction, and productivity improvement initiatives through continuous process improvements, mix-model analysis, and new product integration, impacting all assembly areas from Trim to Powertrain and Finish.

**EDAG Production Solutions GmbH & Co. KG***Sindelfingen, Germany | May 2017 – Feb 2019***Production Planner, Automotive Assembly Planning (Mercedes-Benz SL R232)**

- **Digital Verification & Manufacturability (Development Phase):** Conducted digital verification and validation during the vehicle development phase to ensure manufacturability, applying simultaneous engineering, feasibility studies, and early process optimization for new model assembly.
- **Assembly Process Flow & Module Strategy:** Developed and optimized assembly process flows in collaboration with product development and design teams; evaluated module concepts, supported make-or-buy decisions, and led interdisciplinary workshops to align product and production requirements.
- **MTM-Based Process & Resource Planning:** Performed workflow analysis using MTM, defined eHPV, created and evaluated standardized work instructions and AVOs, assigned workstations, and planned assembly resources including manpower, actuators, power tools, and fixtures.

**Mercedes-Benz AG***Sindelfingen, Germany | Oct 2015 – Mar 2017***Werkstudent: Industrial Automation & Technology, TecFabrik**

- **IIOT Architecture & Platform Development:** Developed and tested Industrial IoT architectures and communication solutions (OPC-UA, MQTT, JSON) to create real-time data dashboards for various user levels.
- **Data Analytics & Visualization:** Evaluated BI tools using real-time automation data; performed advanced data analysis and visualization using Azure, PowerBI, and Kibana.

**Intern: Digital Product Verification, Rohbau-Planning (Body-in-White)**

- **Digital Validation & CAD Verification:** Performed digital verification & validation of joining elements for Body-in-White (Z1, Z2, Z3) and analysed joining sequences in DELMIA CAD.

**Cyient Limited***Bengaluru, IND | Jul 2012 – Aug 2014***Design Engineer, Heavy Construction Machinery**

- **Advanced CAD Modeling & Engineering:** Spearheaded the end-to-end design process using Siemens NX, transforming initial concepts into complex 3D models and detailed manufacturing drawings for heavy machinery.
- **Technical Product Ownership:** Directed the 3D modeling and 2D-3D data conversion workflows; managed Bill of Materials (BOM) and Engineering Change Requests (ECR) to ensure seamless product build-up.
- **Design Validation & Quality:** Delivered cost-efficient designs for Terex cranes, boom trucks, and earthmoving units, utilizing FMEA and DVPSOR to ensure high-quality standards throughout the design-to-manufacture lifecycle.

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**EDUCATION & CREDENTIALS**


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**RWTH Aachen University***Aachen, Germany | 2014 - 2016***Master of Science (M.Sc.). Production Systems Engineering****Honors:** Distinction: Named on the Dean's List 2014-2015 for Excellent Academic Performance (Top 5 percentile)**Visvesvaraya Technological University***Bengaluru, India | 2008 - 2012***Bachelor of Engineering (B.E.). Mechanical Engineering****Honors:** Distinction: Top 10 percentile of the class**Software Skills**

CAD: Siemens NX, Delmia V5  
 MS-Office tools  
 Power BI, Sharepoint

**Certifications**

Project Management Professional®  
 Lean Six-Sigma Green Belt  
 SAP ERP (TERP10)  
 Automobile Servicing and  
 Maintenance Technology

**Languages**

English | Fluent  
 German | Business Fluent  
 Hindi | Professional  
 Kannada | Fluent

**Driving License**

German (AM/B/L)  
 Indian (LMV)

**Hobbies:** Long Distance Running & Triathlon, Cricket, Hiking, Travel, Culinary enthusiast