



# MANIKANDAN KRISHNAMOORTHY

AUTOMOTIVE MANUFACTURING ENGINEERING

Key responsibilities : Process and Proposals, Systems Robotic Simulation, Systems Layout, Business Presentation, 19 years in Automotive industry

## CONTACT

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## EDUCATION

### BACHELOR OF ENGINEERING IN AUTOMOBILE

MADRAS UNIVERSITY, Chennai, India with 75%  
2000 - 2004

### HIGHER SECONDARY SCHOOL

Srinivasa Vidhyalaya Hr. Sc. School, UDT, India  
Math & Science with 83%  
1998 - 2000

## SKILLS

- Automotive Manufacturing Engineering BIW – Robotic Simulation – PDPS, Robcad, IGRIP, Delmia V5
- Developed Planning Team in VW standards for 31D, P31D drawings and sequence excel development.
- QC on Pneumatic Plan – VW standard
- Planning and QC on tooling design, validation, robotic simulation - Process study, Layout, Design and Process validation and change suggestions, sequence planning and validation, complete project management
- Operation Consultation - Driving Profitable Business Growth, Improvement & Sustainable Change.
- Ability to deliver short-term results while maintaining alignment with strategic vision.
- Exposure to NA and EU standards and projects.
- Working on essential MS office package like word, excel and PowerPoint.

## EXPERTISE

## YRS

Automotive BIW	18
Robotics	12
Discreate Simulation	04
Process & Proposal	05
Layout	05
Line Balancing	12
Business Function	06
Functional Designs	06

## SOFTWARE

## YRS

## RATING

Visual Components	1.5	<div><div></div></div>
Process Simulate	04	<div><div></div></div>
Siemens Process Design	03	<div><div></div></div>
Igrip (Delmia-D5)	07	<div><div></div></div>
Delmia V5	01	<div><div></div></div>
RobCAD	05	<div><div></div></div>
Systems Layout - Act CAD	03	<div><div></div></div>

# WORKING AREA INVOLVES

## Process and Proposals

- Recieve requirements
- Recieve required car part 3D data
- Recieve ME joining data like welding, dispense, etc.
- Seperate car parts
- Identify ME joining data
- Receive layout space and identify
- Recieve annual volume required
- Calculate JPH
- Process data station wise
- Identify operator walking distance
- Prepare process info like bubble chart and ME joining data (station wise)
- Prepare layout
- Prepare cycle time chart

## Robotic Simulation

### Process validation:

- Layout validation
- Cycle time analysis

### Design validation:

Best fit EOAT, Hinge eoat, screw gripper, centering ablagae, Hand-off station, Geo fixture, Marriage Station, re-spot station, Hemmer, gripper, weld gun, sealer, stud, arc weld, laser gun, nut welder, dunnage rack are majorly handled.

### Virtual programming:

Paths with appropriate controllers, program for Robot, various Geo-tool and Downloads.

### Other activities:

- Conceptual design of hold-buck, geo-tool, Welding fixtures, EOAT, etc.,
- Discrete event simulation.

# RECENT PROJECTS

## Process and Proposals

- Bar asm r/end upr tie - Challenge
- Volvo blank welder - Challenge
- Cowl lower - Challenge
- Extension asm \_rf pnl rr - Gestamp
- Reinforcement asm-body l\plr lwr - Gestamp
- Panel asm-body l\plr lwr - Gestamp
- Brace asm-qtr inr pnl - Gestamp
- Rail asm-rf inr si - Gestamp
- Mig weld cell 44-sub assemblies - Gestamp
- Bev and ice dt ring - Gestamp
- Bmw f15/f25 hood - Gestamp
- Door ring, inner a&b pilar, roof rail - Gestamp
- Complete bodyside - Stellantis
- Brkt assy-bat supt & brkt assy-bat supt lwr - Challenge
- Honda accord b pillar - Gestamp
- Bmw g65 fuel cell - Gestamp

and 135 other projects processed and proposed

## Non automotive system simulation

- 20220405\_proposal\_q21\_0376a
- Merging\_conveyor (jmp)
- Robot case erecting and folding - q21\_0376c (jmp)
- 22131-001-00\_waco gripper motion
- Friesens sugar creek palletizing
- Robotic case packing

## Automotive systems simulation

- Gm125-p/q\_supt\_asm (lh/rh) - cmc
- Front subframe shear plate (mig) - cmc
- Subframe shear plate (sw) - cmc
- Gmc\_6407\_q4\_asm\_plenum\_front - Autokiniton
- Gestamp mason - a & b pillar (2 style)
- Gm r&d laser booth
- Adding kit to 20gm125 (lh) - cmc
- Challenge\_oshkosh\_b\_pillar
- Challenge\_oshkosh\_d\_pillar

## OTHER NOTABLE PROJECTS

- Valeo Crush Can Assembly - Hatch
- Kawasaki North America - 200 robot migration - KRI
- BR166 – FRT& RR door,Lift gate, Fender GA – Daimler
- X156 - Z3 line - Daimler
- BR205 - Z3 line – Daimler
- GMX351 – Body side outer reinforcement – GM
- GMT900 – FRT and RR floor assembly – GM
- GMT001 – Complete BIW – 3 styles – GM
- GMX353 – RR floor, Rail and Wheel housing – GM
- RM – Utica – Hood assembly - DC
- Front and Rear seat – Gestamp
- Engine side – Classic Design - Gestamp
- Remote laser gun cell proposal and simulation – GM
- Rail inner shock assembly – JSM – Tower
- GMX350 – GM
- Manual Station line – VIVA, GM
- Rear wheel cover - Welding line Process proposal - Caparo
- Discrete Event simulation – Snout pot – slag removal
- Discrete Event simulation Wiesel – Auto unloading system concept proposal – US Defense
- Remote Engine monitoring system Indian Railways – Caterpillar
- Conversion of complete manual heat treatment line to automated line– Addison
- PM only - L550 – main phase
- PM only - X260 – SE and main phase

## WORK EXPERIENCES

**Mar'21- till date**

**CLASSIC DESIGN India, Hyderabad , India (A Convergix Automation Solutions Company)**

Position: Manager | Responsible for Process, Estimation & Proposals, Systems Robotic Simulation, Layout and supporting virtual commissioning, business inflows, interact with head quarters - US, Detroit and sister concern JMP- Canada

**May'17 till Feb'21**

**Carline Technologies Private Limited**

Position: Team Leader – Manufacturing Engineering Responsibilities: Concept Design guidance& QC - Robotic Simulation, pneumatic & sequence plans  
Automotive Manufacturing Engineering

### **Apr'16-Apr'17 Consultant – Automotive Manufacturing Engineering**

Responsibilities: Assisting Detroit based “Automotive Services International – ASI” to setup India Company and Operations; have to drop the process due client’s unexpected death.

### **Jan'15-Mar'16 IDC India**

Position: General Manager - India Operations

Responsibilities: Setup Automotive ME, Driving Sales & Operations handling worth 3 million USD

### **Oct'13-July'14 RLE India, Chennai, India.**

Position: Project Coordinator.

Responsibilities: Develop BIW Design team and Heading Global Manufacturing Service at FORD India- FTSI on account of RLE.

### **Jan'12-Sep'13 MANAUTO Engineering, Chennai, India.**

Position: Director (BIW & Business Development). Responsibilities: Responsible for Manufacturing Engineering business.

### **Jun'11-Nov'11 EBZ India, Gurgaon, India.**

Position: Project Coordinator.

Responsibilities: Managed robotic simulation team, coordinated design projects. Primary focus is to interact with the Germany, Ravensburg HQ and to coordinate the project handled in India branch.

### **Apr'05- May'11 CLASSIC DESIGN India, Chennai, India.**

Position: Project Manager.

Responsibilities: Managed robotic simulation team, coordinated design projects. Primary focus is to interact with the US, Detroit branch and to coordinate the project handled in India branch. Evaluated business functions including, Operations, Administration and focusing on uncovering deficiencies and/or problems. Handled projects worth 6 million USD.

### **Jan'04-Mar'05 DOUX TECHNOLOGIES, Chennai, India.**

Position: CAD Engineer.

Responsibilities: Performed engineering work related to configuring, deploying, maintaining, upgrading CAD models. Designed and developed many high quality models using 3D and 2D CAD tools that meets targets for feasibility, performance, costs, quality, safety and timing in compliance with customer standards. Youngest trainer of design tool Unigraphics and Catia V5.