

## Contact

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## Core Competencies

- ✓ *Managed Green/ Brown field Projects*
- ✓ *Good in Managing Team*
- ✓ *Handled Customers Globally*
- ✓ *Manufacturing Engineer*
- ✓ *Good Knowledge in BIW Manufacturing.*
- ✓ *Cad/ Product feasibility*
- ✓ *Spot distribution / Gun selection*
- ✓ *Stud distribution*
- ✓ *Process planning/Optimization*
- ✓ *Cell building*
- ✓ *Robot Selection / Reach-ability study*
- ✓ *EOAT mounting study / concept design*
- ✓ *Tooling validation/kinematics*
- ✓ *Automatic Path Planning (APP)*
- ✓ *Offline programming (OLP)*
- ✓ *Cycle time analysis- RCS*
- ✓ *Dual Check Safety (DCS)*
- ✓ *I/O signals*

## Rewards and Recognition

- ✓ *Awarded as “Best process optimization” done for MAP Box side line.*
- ✓ *Awarded “Star Of the Month” for completing the U704 BS-4 on critical time line.*
- ✓ *Flawless virtual built support for P703 FNA BS03 on critical circumstance to support the program mile stone.*

# KarthiKeyan P

Sr. Designer (Robotic simulation & Process Planning)



## Summary

- Result driven Engineer with 4.9 years in Robotic simulation & Process Planning. Worked in various BiW commodity of car / pick-up truck for green and brown field projects globally with various OEM and Tier1 suppliers.
- Worked for Ford, General Motors, Volkswagen, Renault, Nissan, Gestamp, Paslin, Flex-N-Gate and etc. Projects done in different applications like Joining, Material handling, Hemming and Sealing for various BiW lines.
- Capable of managing an entire simulation project through guiding team members and coordinating with other teams to provide the best possible outcome to meet customer needs and standards.

## Work Experience

Ford Global Technology & Business center (Present)

Robotic Simulation Engineer (Body Construction Engineering - VOME)

Deputation through Satyam Venture Engineering Services Private Limited

## Duties

- Commodity lead for various projects and guided my team for successful completion. This opportunity helped me to hone my skills in leadership and was able to directly contact with customer and meet their needs. Also done dry run and Virtual Built Event to customers.
- Worked in Process/Resource planning, New process proposal, Part flow, Multiple JPH study, Product validation in manufacturing feasibility, Gun selection / arm design proposal, Spot distribution and validation, Robot reach, EOAT mounting study, Tooling validation, Cost saving and Process optimization, Path creation, Cycle time analysis and OLP.
- Strong in Global manufacturing standards and Requirement, Welding standards, Layout standards, Operator standards and etc

## Projects

### A. BX772

- |           |  |
|-----------|--|
| Commodity | - Framing & Closure                                  |
| Plant     | - SVAP (India)                                       |
| Cells     | - Framing Line-1 & 2, Roof Station, Hood, Lift gate. |

### B. T6 Bundle1.1

#### 1. P703 BS - 1 & 2 (Crew cab)

- |           |   |
|-----------|---|
| Commodity | - Box Assembly & Closure                      |
| Plant     | - SAP, MAP & AAT                              |
| Cells     | - Box floor, Box side, Box framing and Doors. |

#### 2. P703 BS - 3 (Crew cab, Super cab, Regular cab and Redback)

- |           |                                     |
|-----------|-------------------------------------|
| Commodity | - Box Assembly                      |
| Plant     | - SAP, MAP & FTM                    |
| Cells     | - Box floor, Box side, Box framing. |

#### 3. U704 BS - 4 (Everest)

- |           |  |
|-----------|--|
| Commodity | - Closure & Framing                        |
| Plant     | - AAT                                      |
| Cells     | - Rear Door, Tailgate, Ballooning station. |

#### 4. J73 BS - 5 (Crew cab)

- |           |  |
|-----------|--|
| Commodity | - Box Assembly                         |
| Plant     | - SAP                                  |
| Cells     | - Box floor, Box side and Box framing. |

Delivery content – New Line layout, Part flow, Process description, Spot distribution, Gun model, SOP, Cycle time, OLP (Hood Line) and Line support.

### Software Skills

- ✓ Tecnomatix (Process Simulate 15.0.1) eM-Server / TCE/ Disconnected
- ✓ Team Center
- ✓ Vismockup
- ✓ Robcad
- ✓ Delmia D5
- ✓ FIDES
- ✓ Inventor Professional
- ✓ Solidworks
- ✓ NX-Unigraphics
- ✓ Catia
- ✓ AutoCAD (2D and 3D)
- ✓ Microsoft office package

### Skill Set

- ✓ Leader
- ✓ Communicator
- ✓ Collaborator
- ✓ Multi-Tasking
- ✓ Achiever
- ✓ Problem Solver

### Rewards and Recognition

- ✓ Got appreciation from the customer for optimizing the Cycle-time for T1XX Hood line.
- ✓ Got appreciation from customer to achieve the cycle time by introducing combo end effector in A2XX fender line.

## Renault-Nissan Technology and Business Center India Pvt Ltd

Duration : June2019 – Nov2019

Designation: Engineer (CAE- Robotic Simulation)

### Duties

- Handled Greenfield Global project in Engine Compartment Line from RENAULT France, which includes activities such as Process study, Layout study, Reach and Range study, Panel Study/Validation, Spot Distribution, Tool validation study and OLP Generation in PROCESS SIMULATE Module acquiring knowledge in RENAULT standards.

### Projects

1. BCB  
Commodity - Hood Ledge  
Plant - Douai Renault factory  
Cells - LH & RH
2. XFK (support)  
Commodity - Rear Floor  
Plant - Maubeuge Construction Automobile

Delivery content - Line layout, Part flow, Process description, Spot distribution, Gun model, Gripper (Concept), SOP, Cycle time, OLP and Plant support up to job1.

## Classic Design and Engineering Systems

Duration : Feb2017 – May2019

Designation: Project Engineer (BIW- Robotic Simulation)

### Duties

- Worked exclusively for "GENERAL MOTORS" also worked for Ford, Volkswagen, Gestamp and Flex-N-Gate. Projects done in different applications like Material handling, Joining, Hemming and Sealing for various BIW Closures.

### Projects

1. A2LL\_PA, A2SL\_PA, C1XX\_PA  
Customer - General Motors  
Commodity - Fender  
Plant - Fort Wayne Assembly, Lansing Grand River Assembly  
Cells - LH & RH
2. E2LB\_MCM\_YB  
Customer - General Motors  
Commodity - End Gate  
Plant - Detroit/Hamtramck Assembly  
Cells - Major, Minor
3. T1XX\_QA\_YD  
Customer - General Motors  
Commodity - Hood, Decklid  
Plant - Arlington Assembly
4. A1XX\_A2LL\_QA  
Customer - General Motors  
Commodity - Hood  
Plant - Fort Wayne Assembly
5. VW416  
Customer - Volkswagen  
Commodity - Rear Door Beams, Fender, Wheel Housing.  
Plant - Volkswagen Chattanooga Assembly Plant

## International Championship

1. *National Level Mini Bike Design and Fabrication Contest- RIDE2K14*  
*Role : Captain*
2. *International Go Kart Championship 2015*  
*Role : Technical Coordinator*
3. *SAEINDIA BAJA 2015*  
*Role : Captain*
4. *Go Kart Design Challenge 2015*  
*Role : Technical Coordinator*

## Projects

- ✓ *Design and fabricated “The Conceptual Segway”.*
- ✓ *Design and fabrication of “Reverse Precaution in terrains”.*

## Conference

- ✓ *International conference on Recent Advancements in Design, Automation and Intelligent Systems (ICRADAIS-2K16) in tittle of “Tank cleaning Equipment for Heavy Machines” ISBN: 978-93-5254-813-2.*

## Inplant Training And Internship

- ✓ *Roots Industries India limited (Horn-Division)*
- ✓ *BULL Machines Private Limited-Coimbatore (Dec15-jan16)*

6. P375 (Welder12)  
Customer - Ford  
Commodity - Platform  
Plant - MAP

Delivery content - Line Layout, Tooling validation/kinematics, Spot sequence, Robot Reach-ability study, EOAT mounting study, Path creation, Dual Check Safety (DCS), Offline programming (OLP), Robot Data Sheet (RDS) and Cycle time optimization, I/O signals, In-house Line support.

## Sysnautix Technologies Private Limited

Duration : June2016-January2017

Designation : Graduate Engineer Trainee (Designer CAD/CAM)

## Duties

- Experience in Modeling and Detailing of BIW Fixtures and EOAT.
- Estimate and concept proposal, Quality assurance.
- Delivering optimal designs while adhering to project targets, performance objectives, high quality, and cost minimization

Conceptual design, Fixture design and detailing, Reverse Engineering and Familiar with International Standards (ISO, ANSI, NAAMS), GD&T (ASME Y14.5) as well as manufacturing and assembly processes.

## Academic Details

- M.B.A - Technology Management (2017-2019)  
Bharathiar University - Coimbatore
- B.E - Mechanical Engineering (2013-2016)  
Dr.N.G.P institute of technology, CGPA: 7.84
- DME - Mechanical Engineering (2010-2013)  
Rudhraveni Muthuswamy Polytechnic College, Percentage: 89.33%
- SSLC (2009-2010)  
Government Boys higher secondary school, Percentage: 66%

## Personal Details

Father & mother name: P.Pandidurai & P.Manimekalai  
Address : 337/a siddha nagar, near Sivan kovil  
Puthu nagar, Palani – 624601 (TN)  
Date of Birth : 16.09.1994  
Marital status : Unmarried  
Nationality : Indian  
Languages Known : Tamil and English (Read, Write, Speak)

## Reference:

Mr. M SathishKumar (Sr. Project Engineer – Classic Design)  
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