

# Praveen Balakrishnan

TEAM LEAD-MECHANICAL DESIGN & DEVELOPMENT

+91 9790165131

praveen\_balu2000@yahoo.com

praveen251188

25-11-1988

P7959392

Peelamedu, Coimbatore, Tamil Nadu, India

Indian

Married

[www.linkedin.com/in/praveen-balakrishnan-61472015](https://www.linkedin.com/in/praveen-balakrishnan-61472015)

## professional profile

Team Lead with 10+ years of Experience in Automotive/Industrial/Heavy Fabrication/Medical Industry involved in **Designing & Developing Special Purpose Machines, Jigs, Fixtures, New Product Development, Reverse Engineering, Process Automations, Ergonomic Racks** backed by Concept Generation, Cost Estimation, Modelling, Simulation, Calculations, Detailing, Bill of Material Preparation, Rapid Prototyping, Supplier Technical Assistance, Assembly, Pilot Production & Handover.

## education

2006-2010

**B.E Mechanical Engineering**  
Park college of Engineering & Technology, Coimbatore, TN  
Percentage: 81.54%

## professional experience

### Freelancer

11/2020 – Present  
Coimbatore, TN

#### ✓ **Reverse Engineering of Ride on Cycle (Exact Production Model).**

Exact 1:1 replica of Ride on Cycle which involves 100+ Piece Parts classified into Sheetmetal, fabrication, molded parts, standard components like flower bolts, knobs etc. which are sourced from McMaster carr, 3d content central etc. Measured every piece part with Vernier, Radius Gauge, Feeler Gauge modelled precisely. Load calculations for selection of wheels are done in detail. Detailing drawing for production and assembly drawings are drawn, Renderings for product promotions are done using Solid works Photo view, Motion study done to generate animations, BOM Generation using Solid works 2022.

#### ✓ **Design of Products like Mobile Stand, Heat Sink, Fidget Spinner etc.**

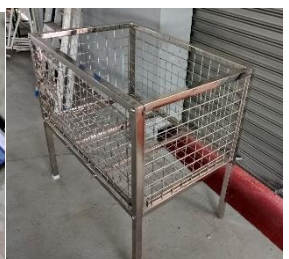
Design and Development of Popular selling Mobile Stand in Amazon made of Laser cut and Bending operation, Design and development of Heat sink for Nvidia Graphics card 3090 model, Reverse Engineering of Fidget Spinner.

#### ✓ **Design and Development of Smartee- An innovative Wi-Fi Operated LED Smart T-shirt/ Wi-Fi LED Clock/Nameboard**

Conceptual Design with Solid works 2018, 3d PCB Board generation with schematic design integrating ESP8266 chip MAX7219 Product, Detailed design of Enclosure for USB ports cut outs, Assembly interference, Engravings, clearance and Venting designs for the Microprocessor, Vendor Sourcing, Product development, Assembly & Testing.

#### ✓ **Design and Development of Clothing Store Rack**

Conceptual Design with Solid works 2022 using Square tubes, Bolt On Rack for easy Assembly, Stainless Steel Material for non-corrosive, Static Load Analysis using Solid works FEA, BOM Generation, Drawing Generation, Assembly, STA, Production.



**L&T Technology Services Ltd, Technical Lead**

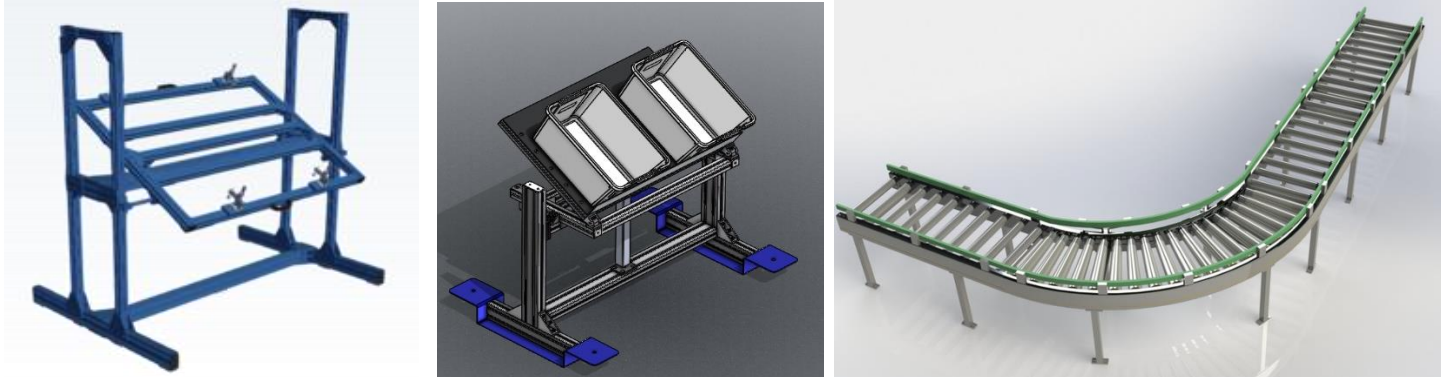
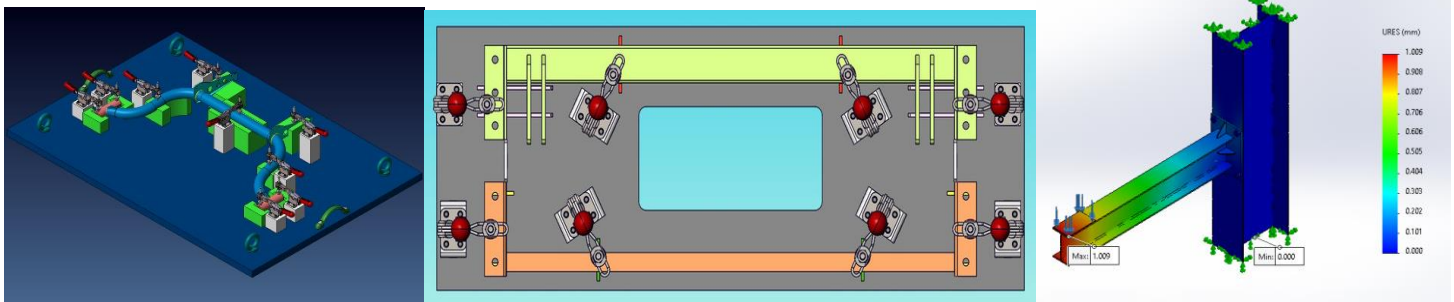
05/2016 – 04/2020

Chennai, TN

- ✓ Executed and Commissioned five Smart SPM solutions for a Medical Client at Japan—notably four “Surgical device disassembly” & an “Automated Testing Stations”.  
**Aluminium Extrusions | Load Cells | 3-2-1 Principle | Pneumatic Cylinders | PLC | HMI | SMC | M2 Blades | FEA | R&D**
- ✓ Designed & Developed 50+ Manual fixtures for a Medical Client at Japan notably for products like “Staplers”, “Shears”, “Coagulators”, “Tissue Cutters”  
**Micron Level Accuracy Fixtures | Aluminium Extrusions | 3-2-1 Principle | Hold down clamps | FEA | R&D**



- ✓ Executed 100+ Welding & Machining Fixture Designs for T&OH US Client with onsite-offshore management ranging from Miniature to Heavy Fabrication weighing in tons. Established a consistent revenue of 40KUSD/month for past 4 years for the company. Notable Fixture includes “Floor Tack Welding”, “Tailgate Tack Welding”, “Drum Welding Fixture”.  
**3-2-1 Principle | Power Clamps | Destaco | Enerpac | Modular Fixturing | Pneumatic | Load Calculations | FEA**



- ✓ Designed and Developed 200+ Ergonomic Racks, Carts and Worktables for Top MNC’s within and abroad ranging from Welded Racks, Flow Racks, Line Carts, Ergonomic Worktables, Paint Wagons, shipment racks, Collapsible Racks, ESD Flow Racks and Smart automated Racks employing PLC & HMI integration.

**ESD Racks | Smart Racks | Modular Racks | 3-2-1 Principle | Wheel Selections | Static FEA | Load Calculations**





## skills

### ✓ Professional Skills

Solid & Parametric Modeling,DFM,DFMEA & PFMEA, Design reviews,3D Digital Mock-up reviews, Cost Estimation, GD&T ,NPD, Fixture Design and Development, Equipment/Machinery Design, Welding Fixtures, Rack Design, Electro mechanical Product design, Sheet metal Design, Plant Layout Optimization,ISO 9001 Standards, Hoshin,Kaizen,Time Study, Root cause analysis.

### ✓ Management Skills

Communication, Ability to Work Under Pressure, Decision Making, Time Management, Self-motivation, Leadership, Adaptability, Teamwork, Creativity, Conflict Resolution.

### ✓ Software Skills

Solid Works 2011-2016-2018-2022, AutoCAD, DraftSight, UGNX 8, Catia v5, SAP3d, COSMOS/Simulation Express, Fluidsim, MS Word, MS Excel, MS PowerPoint, MS Project, Freemind, Linux based Distros, Webex,Zoom, Adobe Photoshop, Aftereffects,Davinci Resolve,Balsamiq,Figma etc

## languages

| Languages | Read | Write | Speak |
|-----------|------|-------|-------|
| English   | ✓    | ✓     | ✓     |
| Tamil     | ✓    | ✓     | ✓     |
| Telugu    | ✗    | ✗     | ✓     |

## interests

Watching Sci-Fiction Films, Exploring New Places, Freelancing, Playing with my daughter, PC Gaming, Computer Programming, Gadgets Freak

## declaration

I hereby declare that all the above information provided by me is true to my knowledge .

*Praveen*

**Praveen Balakrishnan**  
Coimbatore