

# JOTHIRAJAN AJEY UDESKAR



## PROFILE

Highly motivated Mechanical and Process Engineer.

Proficient in using industry-standard tools such as SolidWorks, ANSYS, and Siemens NX for 3D modeling, FEA, and motion studies.

Proven ability to lead and manage projects, conduct process improvements and standardization, and apply lean manufacturing and quality control principles. A strong commitment to **continuous learning** and practical problem-solving.

## CONTACT DETAILS

@ ajejudeskar@gmail.com

+94 76 207 88881

 [Linkedin](#)

✉ 260, Mahiyangane road,  
Badulla

## PERSONAL INFORMATION

Date of birth: **1999 - 10 - 26**

Nationality: **Sri Lankan**

NIC No: **993003743V**

Marital Status: **Single**

Languages: **English , Sinhala , Tamil** (native)

## EXPERIENCE

### UNDERGRADUATE INTERNSHIP

**2025.02–2025.08**

at *Kevilton Electrical Products (PVT), LTD.*

#### ◆ **Productivity Analysis**

Conducted cycle time studies, takt time calculations, and efficiency assessments for multiple assembly lines.

#### ◆ **Lean Manufacturing Tools**

Applied Yamazumi charts, SIMO charts, process trees, and value stream mapping to identify bottlenecks and optimize workflows.

#### ◆ **Workstation and Layout Design**

Designed ergonomic workstations, optimized material flow, and implemented cell layouts for improved efficiency.

#### ◆ **Line Balancing**

performed, workload balancing and developed standard work instructions to ensure one-piece flow and minimize idle time.

#### ◆ **ECRS Methodology**

Utilized Eliminate, Combine, Rearrange, Simplify (ECRS) principles for process streamlining.

#### ◆ **FMEA (Failure Mode and Effects Analysis)**

Led FMEA sessions, developed risk priority number (RPN) tables, and used SIPOC for process mapping.

#### ◆ **OEE (Overall Equipment Effectiveness)**

developed and digitalized OEE dashboards, analyzed downtime, and proposed improvements for real-time tracking.

#### ◆ **CAD and Technical Drawing**

Created 3D models and technical drawings for Prototypes, mold components and plant layouts.

#### ◆ **Mold replacement project**

Modified designs. Obtained and evaluated quotations.

## PROJECTS

### **YARL RACING FORMULA STUDENT CAR** at *UOJ.*

**Ongoing**

◆ Contributing to the chassis and suspension design for the Yarl Racing Formula Student car. Responsible for the design, FEA, and rigid body dynamics, ensuring performance and safety within competition guidelines.

### **AUTOMATED SOLAR-POWERED GRASS CUTTER. (RESEARCH PROJECT)** at *UOJ.*

**2024.01–2025.10**

◆ Led the design, FEA, and motion study of a solar-powered automated grass cutter with a quasi-holonomic chassis for improved maneuverability. Fabricated the frame using lathe, drilling, grinding, and welding.

### **COCONUT OIL EXTRACTION MACHINE** at *UOJ.*

**2022.06–2022.12**

◆ Designed and developed an automated coconut oil extraction machine. Completed FEA and motion studies and fabricated the machine using lathe, grinding, drilling, and welding to enhance extraction efficiency and reduce labor.

## SKILLS

- SolidWorks, Ansys
- MS Word, Excel, PowerPoint
- Business Support
- Communication and team collaboration

## PROFESSIONAL MEMBERSHIPS

### IESL

Student member

### IMechE

Student member

## REFERENCES

### Dr.T.Thanihaichelvan

Head of the Department of Mechanical and Process Engineering.

University of Jaffna.

+94 77 852 5464

tharsika@eng.jfn.ac.lk

### S.G.A.C.Viraj

Assistant Design Manager.

Kevilton PVT,LTD.

+94 77 781 08014

viraj.ch@cmg.lk

## EDUCATION

### B.Sc.HONS IN MECHANICAL AND PROCESS ENGINEERING.

University of Jaffna.

2021–2025

### G.C.E.ADVANCE LEVEL EXAMINATION.

2016–2019

SRI KONESHWARA HINDU COLLEGE, TRINCOMALEE.

◇ C.Maths - B, Chemistry - B, Physics - C.

### G.C.E.ORDINARY LEVEL EXAMINATION.

2010–2015

Royal College Colombo - 7.

◇ 5-A, 2-B, 2-C

## ADDITIONAL EDUCATION

### Lean White Belt Certificate.

2024

Lean and Green Solution PVT,LTD

## EXTRA CURRICULAR ACTIVITIES

### President.

2023–2024

Mechanical Engineering Society.

University of Jaffna.

### Executive committee Member.

2023–2024

Engineering student Union.

University of Jaffna.

### Meyesimeerawaya Organizing Committee.

2015

Sri Lanka's largest musical show organized by school hostellers.

Royal College Colombo - 7.

## HOBBIES

**Trading:** Observe and buy or sell shares in Colombo Stock Exchange.

**Sports:** Badminton, Cricket.

**Miscellaneous:** Traveling, watching films.