

Jacob Jose

www.linkedin.com/in/jacobjose321

EDUCATION

SAPIENZA UNIVERSITY

MS - MECHANICAL ENGINEERING

Sep 2018 - Jul 2021 | Rome, IT

Score:104/110

CALICUT UNIVERSITY

B.TECH - MECHANICAL
ENGINEERING

June 2012 - June 2016 | Calicut, IN

Score:7/10

COURSEWORK

MASTERS

Advanced Mechanical Design

Design of Micro Nanodevices

Dynamics of MEMS

Operations Management

Additive Manufacturing

Production Systems

Mechanical Measurements

Applied Metallurgy

SKILLS

COMPETENCIES

Design to Additive Manufacturing

Rapid Prototyping

Mechanical Design

Project Management

Failure Assessment

SOFTWARE

Design:

• Catia • SolidWorks • Solidedge

• Fusion360 • Keyshot • Autodesk

Eagle

Simulation:

• ANSYS • Hyperworks • Netfabb

Languages:

• Python • Matlab • C++ •

Mathematica

Others:

• MS Office • LaTeX • GOM Inspect

• Mathematica

LANGUAGES

English • Fully Fluent

Italian • Intermediate

Malayalam • Mother tongue

HOBBIES/INTERESTS

•Cycling • Travelling • Psychology

LINKS/PORTFOLIO

• CAD CROWD

• FAB ACADEMY

WORK EXPERIENCE

CAD CROWD | FREELANCE CAD DESIGNER

Jun 2017– Nov 2018

- Collaborated with global clients to Conceptualize and Design multiple consumer products Evaluating product Specifications and Requirements.
- Winner of 5 Product Design contests, Finalist in 7 contests, Participated in 10 contests, with a total of 47 design submissions.
- Awarded as Top Designer, currently Ranked 108th globally among 30,000+ designers in the online platform.

Key Learnings: SolidWorks, Luxion Keyshot, Product Rendering.

FABLAB | FABLAB TRAINEE

Jan 2018 – Aug 2018 | Kochi, India

- Hands-on experience in Operation and Maintenance of different Rapid Prototyping machines like Stratasys Dimension 550sd, Ultimaker 2+, Modella MDX-20, Trotec speedy-100, ShopBot CNC and other machines.
- Planned and Executed 18 projects on 2D and 3D Modelling, Digital Fabrication, Electronics Programming and Documentation.
- Developed, Fabricated and Tested a smart dynamic speaker using Google API. Coordinating with a group of 6, Designed, Built and Assembled an Inventory Management robot.

Key Learnings: Additive Manufacturing, Python, Arduino, Product development, Machine Design,

PROJECTS

POWDER BED DEFECT MONITORING IN SELECTIVE LASER MELTING VIA IMAGE PROCESSING | THESIS | JUL 2021

- Monitored the Powder Bed of an EOS M290 SLM machine for 18 different jobs.
- Tested different Image Processing algorithms and Diagnosed defects.
- Mapped the defects to a 3D volume and Calculated its size to locate the major defects in the final Fabricated part.
- The Deployed model Demonstrated the Applicability for the Discovering and Classifying of small to large-sized defects.

Key Learning: Metal Additive Manufacturing, Wolfram Mathematica, SLM, Image Processing

DESIGN, SIMULATION AND CONTROL OF A QUAD COPTER

Course Project | MAR 2021

- Developed the mathematical model of a quadcopter and Analysed the closed-loop altitude and motion control using a PID controller in Simulink.

Key Learnings: Matlab, Simulink

DESIGN OF AUTOMATED WINE CELLAR

Course Project | SEP 2020

- Designed the 3D Model of a wine cellar to automatically store and retrieve wine bottles using Solid, Surface and Parametric Design Methodologies.
- Optimized the critical components through FEA and Topology Optimization to attain a 40% mass reduction.

Key Learnings: Solid Edge, Hyperworks, FEA, Toplogy Optimization

EXTRA CURRICULAR

- Winner of 6 national university-level RoboWar competitions.
- Elected as the Cultural Secretary of the university students union.