

# MUHAMMAD MUNAJAD

Mechanical Engineer | Process Quality Engineer | Product Design Engineer | Researcher

munajad.engineer@gmail.com · linkedin.com/in/muhammad-munajad · github.com/mdnajad96 · Karawang, Indonesia

## PROFILE

Mechanical Engineer with 9+ years across product development, manufacturing systems, quality engineering, advanced materials research, and CAD/CAM. M.Sc. from NTUST (Taiwan). Currently a Process Quality Engineer at CATL Karawang, driving root-cause analysis and manufacturing excellence.

## EXPERIENCE

**Process Quality Engineer** 2025 - Present

CATL Karawang

- Process quality, root cause analysis, and continuous improvement on a world-leading battery line.
- Manufacturing excellence through data-driven quality engineering.

**Product Design Engineer** 2024 - 2025

Growin Automation

- Designed special-purpose machines and robot-integrated automation systems end-to-end.

**Researcher** 2023 - 2025

NTUST, Taipei

- Magnesium matrix composites: stir casting, SEM/EDX, XRD, mechanical testing, statistical analysis.

**Mechanical Design Engineer** 2018 - 2022

Tunas Makmur Jaya Abadi

- Designed rotary dryers, conveyors, palletizers, and dust collectors for industrial deployment.

**Mold Design Engineer** 2016 - 2018

Yeon Technology

- Engineered precision injection molds with design-for-manufacture discipline.

**CNC Programmer** 2014 - 2018

Surya Moldtech

- Multi-axis CNC programming and CAM toolpaths for tight-tolerance components.

## EDUCATION

**M.Sc. Mechanical Engineering** Taiwan

National Taiwan University of Science and Technology (NTUST)

## SKILLS

**CAD/CAM:** SolidWorks, Siemens NX, Inventor, AutoCAD, PowerMill

**Manufacturing:** CNC Programming, Product Development, Machine Design, Process Optimization

**Research:** Taguchi, ANOVA, SEM/EDX, XRD, Mechanical Testing

**Advanced:** Metal Additive Manufacturing, Stir Casting, Magnesium Matrix Composites

## PUBLICATION

**Magnesium Hybrid Metal Composite via Infiltrated Stir Casting Technique:  
A Novel Approach to Enhance Energy Absorption**

Journal of Applied Science and Engineering