Research Group Profile

# Advanced Manufacturing Research Group (AMRG)

## NICHE AREA

- Machining
- Sustainable Manufacturing
- Welding
- Additive Manufacturing
- Casting & Moulding Technology
- Product Design & Development
- CAD/CAM/CAE
- Plasma Technology
- Vacuum Casting
- Tissue Engineering

## MEET OUR TEAM

**RESEARCH GROUP LEADER**
Assoc. Prof Dr. Aini Zuhra Binti Abdul Kadir

**RESEARCH GROUP MEMBER**
Ts. Dr. Mohd Azlan Bin Suhaimi

**RESEARCH GROUP MEMBER**
Prof. Dr Muhamad Zameri Bin Mat Saman

**RESEARCH GROUP MEMBER**
Prof. Dr. Izman Bin Sudin

**RESEARCH GROUP MEMBER**
Prof. Ts. Dr. Safian Bin Sharif

**RESEARCH GROUP MEMBER**
Assoc. Prof Dr. Norizah Bt Hj Redzuan

**RESEARCH GROUP MEMBER**
Assoc. Prof Ts. Dr. Khairur Rijal Bin Jamaludin

**RESEARCH GROUP MEMBER**
Assoc. Prof Dr. Masine Bte Md Tap

**RESEARCH GROUP MEMBER**
Dr. Mohd Faridh B. Ahmad Zaharuddin

**RESEARCH GROUP MEMBER**
Ts. Zulkepli Bin Haji Muhamad

**RESEARCH GROUP MEMBER**
Ts. Rozaimi Bin Mohd Saad

**RESEARCH GROUP MEMBER**
Mr. Khidzir Bin Zakaria

**RESEARCH GROUP MEMBER**
Ts. Dr. Muhd Ikmal Isyraf Bin Mohd Maulana

**RESEARCH GROUP MEMBER**
Ir. Ts. Dr. Nor Hasrul Akhmal Bin Ngadiman

**RESEARCH GROUP MEMBER**
Dr. Najlaa Nazihah Binti Mas'ood

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## SERVICES & FACILITIES

- CNC and CAD/CAM Facilities and Training (3 & 5-axis Milling, Turning, EDM Wire Cut & Die Sinking, CAD/CAM)
- CMM Measurement & Inspection
- 3D Printing Services
- Product Fabrication
- Performance of Machinability Studies
- Design for Six Sigma
- Design of Experiment & Taguchi Techniques
- Life-Cycle Assessment

## FLAGSHIP RESEARCH & COMMUNITY PROJECT

Plasma Researcher with Mushroom Entrepreneur

Machining Performance Evaluation

TDCS Project in collaboration with Medical Experts

TVET Training to Kluang Vocational College

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## RESEARCH ACTIVITIES & PROJECT HIGHLIGTS

- Investigation of tool wear mechanism in machining of aerospace materials for developing an intelligent cutting tool monitoring system
- Optimization of the Materials Composition and Process Parameters To Enhance Mechanical Properties of the Developed Tissue Engineering Scaffold and Cell Culture Study
- Development of a metal 3D printer (UTM RA Iconic Grant)
- Medical device for the treatment of mental illness for Malaysian patient
- Evaluation of high speed machining and micromachining of bulk aerospace material fabricated by direct metal laser deposition process (UTM High Impact Research Grant)
- Cold plasma development for rice grains and mushroom spawn treatment
- Additive Manufacturing framework based on modified TRIZ-AM principles for complex product design and development