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Recent Publications

Published

1. Al Hussain and AB
Abdullah., Advances in
Material Science and
Engineering, 2023.

Active Grants

STG - Matching

Title: Tribological
Performance of Additive
Manufactured Aluminum
Alloys, 2021-2023

FRGS Grant

Title: Investigation on
the effect of hot forging
on the deformation
behavior and
microstructural response
of Wire Arc Additive
Manufacturing (WAAM)
of high strength low
alloy (HSLA) steel
components, 2022-2025



Preface

5S requires commitment and mentality shift. It's become one of the projects for the recent internship student, Fahman. The implementation of the 5S is more focus on the tools and machinery arrangement at the lab.



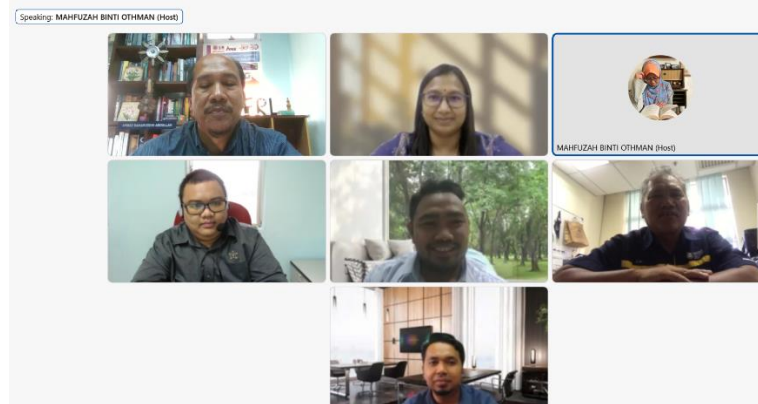
In this issue, details of the 5S program implemented at the MFRL will be included in the next page.

Involvement of the lab members begins with the gotong-royong on 5th of October 2022. It is our tradition before the semester open.



Congratulation Ajwad for his Achievement

Alhamdulillah, after gone thru all the challenges and difficulties, Ajwad made the group proud of his successful in the thesis defense on 13th of October 2022.



Participation at ICIDMMT2022

MFRL PhD Candidate, Mr Mohd Fadzil Jamaludin presented his work on the springback of low-power laser welding of dissimilar aluminium alloys at the 1st International Conference of Innovative Design, Manufacturing & Materials Technology (ICIDMMT 22), organized by Universiti Sultan Zainal Abidin (UniSZA), Terengganu, Malaysia. The virtual conference brought together over 30 local and international presenters on topics of Innovative Design, Technology and Engineering. The 2-days event was honored with presentations by notable keynote speakers, Emeritus Professor Imam Buchori Zainuddin from Indonesia, Prof Dr.Eng. Ahmed Aly Daa Mohammed Sarhan from Assiut University of Egypt and Professor Dr Mohd Khairul Anuar Mohd Ariffin from Universiti Putra Malaysia.



Cont. Preface

For the last two years, it cannot be done due to MCO.



Contact Details

Metal Forming Research Laboratory, School of Mechanical Engineering, Engineering Campus Universiti Sains Malaysia Seri Ampangan 14300 Nibong Tebal, Pulau Pinang, MALAYSIA, Phone: 604-5996361, Fax: 604-5996912, e-mail: meba@usm.my,

Article

5S IMPLEMENTATION AT THE METAL FORMING RESEARCH LAB

Muhammad Harith Fahman Mohamad Fadli

Intern Student

Metal Forming Research Lab

School of Mechanical Engineering

Email: 2020810372@student.uitm.edu.my

Introduction

5S is a short form of Sort, Set in Order, Shine, Standardize and Sustain. The 5S system is a lean methodology that improves workplace efficiency and eliminates waste. This time, sorting becomes our focus.

Implementation.

In this project, there are few areas to be focused. (a) improving the working area, (b) rearrange and sorting the documents, tools and devices and (c) new in-out and material inventory system. The working area was improved by marking the path. Figure 1 (a) and (b) shown the resulted pathway in the lab.

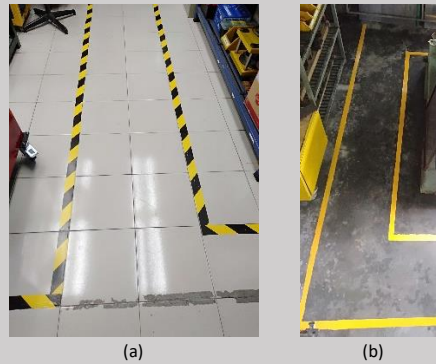


Figure 1: New pathway

Sorting tools and devices is the most challenging task as space limitation and numbers of tools with huge size. Figure 2 (a) and (b) show the rack for tool and proper arrangement of documents in the cupboard.



Figure 2: Rack and cupboard after sorting

In order to control and record in and out data of visitor as well student, a google form-based recording system was implemented. The visitor need to scan the provided QR code before entering the lab and give the information about their purposes and any material usage.

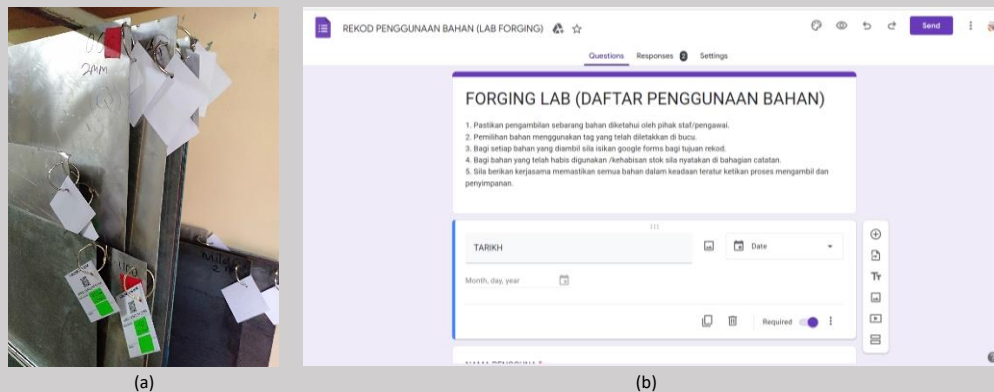


Figure 3: Material inventory system using google form.