TO INNOVATE THE POTENTIAL USED OF ARC AND OXY-ACETYLENE WELDING TO PRODUCE 3 DIMENSIONAL FORM AS AN ALTERNATIVE TO FOUNDRY WORK



RESEARCH MANAGEMENT INSTITUTE (RMI) UNIVERSITI TEKNOLOGI MARA 40450 SHAH ALAM, SELANGOR MALAYSIA

BY:

MOHD RAZIF BIN MOHD RATHI MURSYIDAH BT ZAINAL ABIDIN ZAIDI BIN WASLI

DECEMBER 2012

Contents

1.	Letter of Report Submission				
2.	L	etter of Offer (Research Grant)	iv		
3.	Α	cknowledgements	v		
4.	Ε	nhanced Research Title and Objectives	vi		
5.	R	Report	1		
	5.1	Proposed Executive Summary	1		
	5.2	Enhanced Executive Summary	2		
	5.3	Introduction	3		
	5.4	Brief Literature Review	4		
	5.5	Methodology	8		
	5.6	Results and Discussion	11		
	5.7	Conclusion and Recommendation	17		
	5.8	References/Bibliography	19		
6.	R	Research Outcomes			
7.	Α	ppendix	22		

5. Report

5.1 Proposed Executive Summary

This research is to innovate the potential used of Arc and Oxy-Acetylene welding tools and technique to produce three-dimensional forms as an alternative to foundry work. The Arc and Oxy-Acetylene tools commonly used by welder limited to jointing works. However, the researcher believes that the melting capabilities of the Arc and Oxy-Acetylene can be harnessed and be used to create other creative products. This research focus on fabricating three types of metal- copper, brass on mild steel structure to form layers of "surface skin" in replace of foundry work treatment (casting work). The advantage of this process is to offset or replace the expensive of foundry work. This process when applied to the production of creative work produces very rich tactile textures that complement the design. The flexibility of the process/ technique is easily adopted by experience welder and sculptor as such it will be an added value to their profession, to commercialize their product.

5.2 Enhanced Executive Summary

This research is to innovate the potential used of Arc and Oxy-Acetylene welding tools and technique to produce three-dimensional forms as an alternative to foundry work. The Arc and Oxy-Acetylene tools commonly used by welder limited to jointing works. However, the researcher believes that the melting capabilities of the Arc and Oxy-Acetylene can be harnessed and be used to create other creative products. This research focus on fabricating three types of metal- copper, brass on mild steel structure to form layers of "surface skin" in replace of foundry work treatment (casting work). The advantage of this process is to offset or replace the expensive of foundry work. This process when applied to the production of creative work produces very rich tactile textures that complement the design. The flexibility of the process/ technique is easily adopted by experience welder and sculptor as such it will be an added value to their profession, to commercialize their product.

S.NO	TITLE CALL NO.	ICAT SMD	ISBN AUTHOR	VOLUME OFFICER	LOCATION DATE	STATUS	
	PLACE/PUBLISHER/YEAR	NOTE AREA					
1.	To innovate the potential used of arc and oxy.acetylene welding to produce 3 dimensional form as an alternative to foundary work						
		ITM			SWK		
	113274	ITM	Mohd Razif Mohd	174172	06/06/2018		

UiTM Digitized

MARKED FOR DIGITIZATION

Date: 06/06/2018

Summary :

UITM Sarawak

Total Titles: 1

Total Copies: 1

Shah Alam, Selangor / Universiti

Teknologi MARA. Research Management Institute /

3/18 3:45 PM Page 1 of1