

2019

**ACADEMIC INTELLECTUAL**  
INTERNATIONAL INVENTION,  
INNOVATION & DESIGN BOOK

Published by : Student Affairs Department,  
Universiti Teknologi MARA Kedah,  
P.O. Box 187, 08400 Merbok, Kedah, Malaysia.

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ISBN : 978-967-0314-71-6

Printed by : Perpustakaan Sultan Badlishah,  
Universiti Teknologi MARA Kedah,  
P.O Box 187, 08400 Merbok, Kedah, Malaysia.

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# INVENTION

## CATEGORY

# **SCARS-D: BLUE CRAB'S CARAPACE MEASUREMENT TECHNOLOGY BASED ON IOT AS AN IMPLEMENTATION INDONESIAN FISHERIES AND MARINE MINISTER'S REGULATION NO. 56/PERMEN-KP/2016**

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Blue crab (*Portunus pelagicus*) is a fishery commodity that has high selling value, both as an export or local commodity. Blue crab (*Portunus pelagicus*) is a fishery commodity that has high selling value, both as an export or local commodity. Blue crabs export production increase up to 27.81% from 2016 to 2017. As a result, fishermans don't get the exact size and getting so slowly to measure one by one. It makes the minister's regulation No. 56/PERMEN-KP/2016 just a regulation that isn't real applied. We need an innovation to solve this problem and create a combination design of technology and regulation data. SCARS-D is tested 2 times, field based test and laboratory based test. Laboratory based test is done. Laboratory based test is order to know that all of the components run well. Field based test is done in coastial Lekok Beach, Pasuruan. SCARS-D is design environtmental friendly that would not hurt blue crab when we do calculation. The main components in SCARS-D are using Arduino, laser, LDR, ESP8266 for IoT, load cells, rotary encoder, conveyor and servo motors. All data that has been obtained will be processed and stored on the firebase server. SCARS-D used Internet of Things (IoT) concepted and also connected directly to an android smartphone, making it easy-operated by any user to measured blue crabs more accurate and more efficient. SCARS-D very usefull and very simple. It make this tool applicable and have a potention to comercialized.



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ISBN 978-967-0314-71-6



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