

# **Portable Inflated Solar Power Cold Storage House Technology as a supporting facility to increase the production and marketing of fishery fishermen**

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## **Abstract (12 font)**

Indonesia is a maritime country and fourth largest fish exporter in the world. Currently Indonesia exported fish worth around 35,4 billion US dollars in 2012 and continue to rise. The post-catching is the most important aspect of the process to ensure the fish quality will be meeting the standard export. Most of the post-catching process is a home industry based and fridge/freezer had been used to store the fish before sending them to the exporter for further process. Therefore, paper presents the design and development of the Solar Power Cold Storage House for the fishermen. The general purpose is to support production facilities for cheaper alternative which increasing the fishermen profitable for the mass production. The research purpose is to developed a prototype Portable Inflated Solar Power Cold Storage House as a production support facility and fishery marketing that meets aspects of strength, speed, effectiveness, convenience, so that Portable Inflated Solar Power Cold Storage House products also increase the absorption of National Fish. The paper will describe the design process, testing process such as material strength, rapid deployment of the cold storage, environment test and mechanical test.

## **Keywords (12 font)**

Portable Inflated, Solar Power Cold Storage House, fishermen

## **Biographies**

Include author bio(s) of 200 words or less.

**Mr. Ikhsan Setiawan** is a Pro Vice chancellor responsible for the International collaboration at Universitas Narotama Surabaya. He graduated from Surabaya Institute of Technology on the transportation solution. His interest is on the development of new product for improving productivity for the small and medium enterprise.

**Dr. Reswanda T. Ade** is senior lecturer at Universitas Narotama Surabaya. He graduated from IPB Bogor in Fishery and continue his master degree on Management. He completed his PhD at UNAIR Surabaya in economy. He had secured number of funding from Ministry of Higher education Indonesia and also written some books.

**Dr. Dani Harmanto** is currently the acting programme leader (course director) of BEng (Hons) Motorsport Engineering and senior lecturer in automotive Engineering at University of Derby. He had secured number of funding from UK and Local government for knowledge transfer partnership for developing a novel product. He obtained his mechanical engineering degree from ITN Malang, Indonesia. His MSc and PhD in Automotive Engineering from Coventry University, United Kingdom. He is also a Chartered Engineer (CEng). He is sitting in the committee of Education and Training at Institution of Engineering Designer (IED), United Kingdom as a member. He is also a member of the Automobile division at the Institution of Mechanical Engineering (IMEchE), United Kingdom. In addition to this, he is a Fellow Member of Higher Education (FHEA) in the UK. He is mainly teaching at undergraduate and master level (Thermofluids, CFD, FEA and Design). His main research interests include computational fluid dynamics, finite element analysis, and renewable energy. His current research concerns the reduction of the jet noise using Computational Fluid Dynamics with one of the world announce jet engine manufacturer. He is a member of reviewers for Proceeding of Institution Mechanical Engineering part A – Z and several other journal publications.