# 3rd CGSS INTERNATIONAL CONFERENCE of Graduate School on Sustainability

## Contemporary Studies on **Sustainable** Development

September 22-23, 2018

Graduate School Building, University of Merdeka Malang Terusan Raya Dieng 59 Malang, East Java, Indonesia

## CALL FOR PAPER

The exploration of sustainable development issues is still very open, especially at the regional level. These issues inspired Unmer Graduate Program in a sustainable manner to develop research and teaching. The conference is based on the belief that there are a large number of contemporary studies that are interdisciplinary and in the form of regional case studies in different countries. We need a range of inputs that will be the foundation for the specific study of environmental engineering, sustainable cities, and natural resource management.

The special themes we prepare are based on several issues in economics, and the field of architecture in order to explore the possibilities of interdisciplinary characters. Authors are invited to submit their papers with the following subthemes (but not limited to):



### Subthemes of Natural Sciences

- Architecture for Sustainable Cities and Communities.
- Architecture for Resilient Infrastructure and Sustainable Industrialization.
- Architecture for Affordable and Clean Energy
- Environmental Engineering for Clean Water and Sanitation.

## Subthemes of Economic

- Decent Work and Economic Growth for Economic Sustainability at Global Competition from Development of Tourism, Enterpreneurship, Small and Medium Enterprises;
- Industry Innovation and Infrastructure Supported by Development of Accounting; Banking; Capital Market; Tourism Production and Consumption; Business Management; Marketing; HRM;
- Innovation for Decent Work; SME; Creative Industry; Enterpreuneurship.
- Sustainability in Accounting;
- Corporate Governance & Corporate Social Responsibility.

## KEYNOTE SPEAKERS



Prof. Madya Dr. Mohd. Zin Bin Kandar



Professor Hasan Fauzi Sebelas Maret University Surakarta, Indonesia

# INVITED SPEAKERS



Professor Respati Wikantiyoso
Universitas of Merdeka Malang
Indonesia
Compactement (IAI-KApd)

## IMPORTANT DATES

Deadline for Full Paper Submission : September 2nd, 2018 Notification of Paper Acceptance

: September 10th, 2018

Deadline for Registration : September 17th, 2018 Presenter

- Indonesian Presenter

: IDR 500 000 -

International Presenter

: USD 100

**CONFERENCE FEE** 

**Participant** 

- Indonesian Participant

: IDR. 200.000,-

- International Participant

- USD 15

















more info website: pasca.unmer.ac.id/berita/announcement

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## SUSTAINABLE ENERGY HOMES

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## ABSTRACT

Independent energy house become an important for modern housing now a day. Solar energy is one of the renewable and sustainable energy. Optimization Solar energy can be done by considering how long the sun light can directly on solar cells. Optimizing solar cells performance needs to be done, to increase the amount of stored electricity. In addition to the direction of sunlight, the weather also directly affects the performance of solar cells. The result of the direction, it has an effect on the building shape, façade and the room order, so the building will have a shape that according to function. Form follows function is effectively for adjusting room space. This Residential building will be appropriate with urban context, especially in city of Malang. Form follows function, the way to find sustainable house and independent energy house for residential house design. The design plan of Independent energy home with form follows function approach will be done in Malang city.

Keywords: homes, independent, modern, sustainable, design, direction, solar cells

## 1. INTRODUCTION

Malang City is located in mountain area, suitable place for stopover. With tropical climate which has a temperature range between 22.2 ° C - 24.5 ° C, humidity levels between 74% - 82% and has a high rainfall in December to April. Malang city have groundwater reserves (CAT) that are good for drinking water. River surface used for the final drainage channel of the city drainage (Pemkot Malang, 2016).

In respond to the effects of climate change, the Indonesian Government participates in dealing with issues on the Sustainable Development Goals (SDG's). In the eleventh point regarding the discussion of Sustainable cities and communities, sustainable development cannot be achieved without significantly transforming the way we build and manage our urban spaces. Making cities safe and sustainable means ensuring access to safe and affordable housing, and upgrading slum settlements. It also involves investment in public transport, creating green public spaces, and improving urban planning and management in a way that is both participatory and inclusive (UNDP Indonesia, 2018).

In the seventh point of SDGs, affordable and clean energy, the need for electrical energy increased from 1990 - 2010 to 1.7 billion and continued to increase, so that it needed cheaper energy. A global economy reliant on fossil