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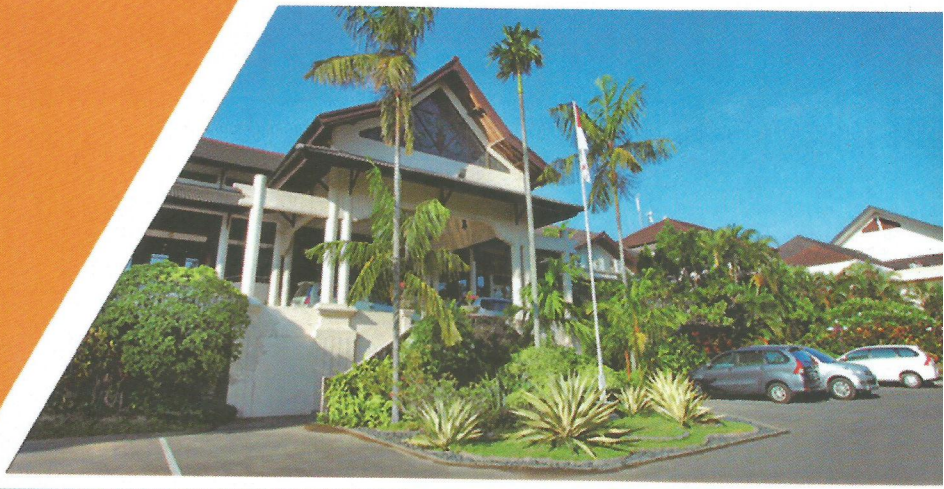
"BRIDGING THE GAP OF EMERGING TECHNOLOGY TO SUSTAINABLE AND SMART TECHNOLOGY"

FGDT.PTM

2017

1st INTERNATIONAL CONFERENCE ON ENGINEERING & APPLIED TECHNOLOGY

MATARAM, NOVEMBER 29 - 30th 2017



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Abstract for Paper

Day 1: Wednesday, November 29th, 2017

Parallel Class Session I-A : Architecture Track – Room : Pejanggik (1st Floor)

Moderator: Dr. Tri Widyatno

(#19) Shifting of air pollutants distribution during car free day event

HS Huboyo (Universitas Diponegoro, Indonesia), IW Wardhana (Universitas Diponegoro, Indonesia), E Sutrisno (Universitas Diponegoro, Indonesia), SH Budisulistiorini (Universitas Diponegoro, Indonesia)

According to Decree of Semarang Mayor No.22/2011, car free day activities is addressed to give clean air for facilitating citizens activities. This car free day event is held every Sunday in the morning in the city center of Semarang i.e located at Simpang Lima square. This research is aimed at identifying the shifting of pollutant during car fee day event by comparing ambient air pollutant concentration represented by carbon monoxide during car free day event and non-car free day event. About 14 streets had been measured its ambient CO concentration during Saturday (non-car free day event) and Sunday (car free day event). We also modeled (using Caline4) the CO dispersion at the certain area on those streets to know the spatial distribution of concentration during those two events. The ambient CO concentration, in general, during car free day event were somewhat increase for certain roads. The emission load of vehicles emission during CFD event was 1.37 times of non-CFD event. Nevertheless, based on spatial distribution of ambient CO concentration at the area of roads of interest, its concentrations were below the ambient CO concentration standard (PP.41/99).

Keywords: air pollution, carbon monoxide, Semarang, spatial distribution, street

(#102) Planning and Design Approach in Islamic Green City Towards Sustainable City: the Case of Martapura

H M Caesarina (University of Muhammadiyah Banjarmasin, Indonesia), N Aina (University of Muhammadiyah Banjarmasin, Indonesia)

Global climate is changing the green dimension of sustainable development has becoming an imperious agenda for all countries to pursue. Indonesia as part of Asia (which is the most populous Muslim majority country in the world) faces serious environmental problem, and uses the green city concept in most of its Islamic cities. Martapura, as one of the capital city in Indonesia is famous as an Islamic city with great vision and mission for green city. This study analyses the context of urban planning and design approach in Islamic Green city to help improving the quality of environment towards sustainable city. This is a descriptive-analysis study, and data collection conducted by documents and field survey. It concludes lessons