

MODELING FOR THE DISTRIBUTION OF PYROCLASTIC FLOW MERAPI VOLCANO USING TITAN2D AND LIDAR DIGITAL ELEVATION MODEL

Nurnaning Aisyah¹, Christina Widiwijayanti², Subandriyo Subandriyo¹, Dewi Sri Sayudi¹, Noer Cholik¹,
Kazuhiro Ishihara³, Masato Iguchi³

¹Geological Agency - Ministry of Energy and Mineral Resources, Indonesia, ²Earth Observatory Of Singapore - Nanyang Technological University, Singapore, ³Sakurajima Observatory - Kyoto University, Japan

E-mail: nurnaning2012@gmail.com

Characteristics of Merapi volcano eruption marked by growing lava dome, when collapse so formed pyroclastic. Pyroclastic flows be primary hazard Merapi eruption that causes victims with many materials losses. Pyroclastic are a mixture of gas and rocks (From fine grains to large of stone) which has a very high temperature (> 600oC) and flows to a lower place are controlled by gravity and topographic. In 2010, outside the general pattern, pyroclastic eruptions Merapi are formed by the combination of the lava dome collapse and explosion. Almost of spreading the pyroclastic flow to all valleys and main rivers, and dominant to the south with the largest volume (> 30 Models validation use data from Merapi eruption in the past and in 2010.