Analisis Kestabilan Statik Matra Longitudinal Platform UAV Kolibri 08-V2

Title	Analisis Kestabilan Statik Matra Longitudinal Platform UAV Kolibri 08-V2
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Abstract	The aspect of stability is one of the important things that must be considered in UAV design. For that, it is necessary to calculate and analyze the static stability of the longitudinal matrix that works on the Kolibri 08-V2 UAV Platform using Digital Datcom software. The things that are analyzed are the influence of velocity variation, central of gravity positions and angle of attack variations on aerodynamic parameters, in this case CL, CD, and Cm, as well as the stability of the UAV Kolibri 08-V2 platform in a longitudinal dimension. Longitudinal analysis of static stability on the Kolibri 08-V2 UAV platform was performed using Digital Datcom software. The things that are analyzed are the aerodynamic parameters CL, CD, and Cm which occur with variations in velocity, several positions of the center of gravity, and variations in the angle of attack with several flying heights. From the results of calculations using Digital Datcom software, it can be concluded that speed has no effect on CL, CD, and Cm, cg affects Cm, angle of attack (ÃŽÂ±) affects CL, CD, and Cm, and the Kolibri 08-V2 UAV platform meets the criteria. the stability of the static pitch (CmÃŽÂ± <0), so that this plane can be said to be statically stable in the longitudinal dimension.
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