# ABSTRACT

*The research about moving object detection has been done by some researchers using V/M Graph. V/M Graph is a logical method based on our thought that could describe all the given information and the relation between different variables using a graphical structure in the field of processing images. But, there has not been found yet a research about how to implement V/M Graph method in modeling world which has a unique and theoretical type of gait.*

*This final project is made to design tools that could assess gait quality for modeling school by detecting the way how the models walk. The quality of gait is determined by modules inside the V/M Graph, which can produce the gait characteristics of models, and then carried out the classification using k-NN classifier. Actually, this tool is made with the aim that the modeling school would be able to provide an assessment about someone's gait with unnecessarily have to give an example repeatedly of how the modeling gait is, and also be able to evaluate the accuracy of it.*

*This final project work has produced a simulation in a form of tool's design based on MATLAB which can assess the quality of modeling gait based on the catwalk basic theory which is the stability of walk. Using Zero Crossing and the average speed of moving object between frames as the features, this system got its best performance for 56.76% in accuracy.*

***Keywords*** *: catwalk, k-NN, modeling, V/M Graph, Zero Crossing*