

**Universiti Teknologi MARA**

**Road Signage Pattern using Augmented Reality**

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Thesis submitted in fulfilment of the requirement for  
**BCS (Hons.) Multimedia Computing**  
**Faculty of Computer and Mathematical Sciences**

November 2010

## ACKNOWLEDGEMENT

Alhamdulillah and I grateful to Allah S.W.T for blessing me to complete my final year report. Without the help and support, I can't make the thesis and this report completely successfully within the time period.

Thank you to my supervisor, Dr. Fakhru Hazman Bin Yusoff for trusting and giving me the opportunity to complete this thesis. Thanks for all the knowledge that I have learnt while I am completing this thesis.

A thousand appreciations to Mr. Mohd Yunus Bin Mohd Yusof, the lecturer of CSC699. Also to other lecturers of Bachelor in Computer Science (Hons) Multimedia Computing, who had helped me a lot to finish up this thesis report.

Not forgetting to my parent and all my family for your support. Thanks to my entire friend for giving me supports and encouragement. May the glory of God, bless you all for your kindness.

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## ABSTRACT

People always ignore the signboard while driving on the road even knowing it is important to alert us. Without it, we are not notice that what kind of danger will comes in front of us. Therefore, many accidents occur, one of them is lost sight of signboard. All this happen because people like to steal the signboard due to the material. In addition, the cost production to replace the new one is quite expensive. The other issue is about the representation of what on the board is not clear. Driver does not know actually what written on the board about dangerous that come later on. The solution of this entire problem, it brings to the planning an application development on the phone based 3D modelling by using augmented reality. It seems to be like this; basically all people can alert the appearance of signage on the road situation but it is not very effective. It is because that technique of tracking is slow. This project proposes an adaptive tracking technique whereby tracking will be done on selected frames using optical flow analysis. The actual movement will be predicted on this analysis. After analysis, several testing is conducted to prove that the proposed method is better compared to existing way.