

**University of Macau**

**Abstract**

**Development of Vehicle and Motorbike Driving Cycles for Macau**

**by**

**Cheang Kuok Mao**

**M-A3-6556-6**

**Thesis Supervisor: Professor Wong Pak Kin**

**Department of Electromechanical Engineering, Faculty of Science and Technology.**

This study presents a development of a standard driving cycle in the urban areas of Macau. On-road speed-time data has been collected by a private car and motorbike with programmable electronic control unit driving along three fixed routes. The collected data is analyzed and compared with mandatory driving cycles used elsewhere. The cycle is built up by extracting parts of the on-road speed data such that summary statistics of the samples are close to that derives from the data population of test runs. The applications of the driving cycle data for Macau are also presented in this thesis.