1999/2000 HONOURS YEAR PROJECT PROPOSAL

*Please return the completed form to **Ms Cheryl Lee** by <u>21 May 1999</u>.*

SoC Advisor Name : **<u>Leong</u>** Hon Wai Phone : 874-2903 Email : `leonghw`	

External sponsors (*if any*) :

Project Category*:*   ***Either Hon or Hon/MSc***

Project Title: ***Vehicle Routing with Scheduling***

Project Description (*Hon-part followed by MSc-part (if any))* :

In a typical equipment servicing operation (eg. photocopiers), clients request for machines to be serviced at various locations around the island. Once the data has been committed, the servicing company then plans for its service personnel the least distance schedule to minimize travel time.

However, the distance measure in this model is based on the euclidean distance between locations and does not take into consideration the route that the service personnel have to take.

(**Honours-Project-Part**) The objective of this project is thus to study this problem and propose an algorithmic solution to it. A prototype will also have to be developed as proof of concept.

(**The-Optional-MSc-Part**) This project can be extended to an MSc project. For the MSc part, the project will explore different solution techniques.

Start Date: ***ASAP***	Duration: ***8 months***	Allocation (by bidding?): ***Interview***

Lab: ***RAS Garage (S15,03-15A)***   Coord: **Leong** Hon Wai   Signature∕Date:

Req.∕Avail. of HW∕SW: *UniUnix/PC, C++, good analytical skills*

Knowledge∕skill required: *C++ programming. Good command of algorithms and data structures.*
Knowledge of Operations Research/Routing/Scheduling helpful.
Willing to work hard & motivated to learn new things.

Benefits∕Significance of Project: *Student gains experience in R&D for solving real problems;*
Very valuable and sellable skills for the logistics sector.

Please ask TWO SoC staff members (Lecturer/Fellow or senior) to review the project.

Reviewer Name:	Reviewer Name:
Comments:	Comments:
Signature/Date	Signature/Date