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# Activity Report for MASc Candidates

## Systems Design Engineering

**Name and E-mail Address:** Danny Ho ( ycdho@engmail.uwaterloo.ca )

**Date:** May 07, 2003

**Supervisor(s):** Prof. Catherine M. Burns

**Research Field and Area:** Ergonomics, Human Factors and Biomedical Engineering (EHFBE) - Engineering

**Program:** Thesis MASc, full-time

**Term/Status:** 3.0 / Active

**Start Date:** September 1 , 2002

### Funding Held

1. source: **C. Burns** , type: **RA** , amount/term: **2750** , period of tenure: **05/03 - 08/03**  
description: Research Assistantship

### Funding Applied For

## Outline of Progress Toward Completion of Degree Requirements

**Total number of 500/600/700-level courses credited to date:** 0 / 2 / 1

**Total number of 500/600/700-level courses taken for credit this term:** 0 / 0 / 0

**Total number of graduate courses taken for credit and taught by (co)supervisor(s) since start of program:** 1

**Total number of graduate courses with a grade of incomplete on current transcript:** 0

**Thesis/Project topic has been selected.**

**Review of background literature has essentially been completed.**

**Experimental/Theoretical research has not been essentially completed.**

**Thesis/Project outline has not been approved by supervisor(s).**

**Seminar requirement has not been cleared.**

**First draft of thesis/project has not been submitted to supervisor(s).**

**No Program Time Limit Extensions have been granted.**

## Scholarly Activities Initiated or Completed This Term

- Prepared Paper Submittal for HFES 2003 Conference in January, 2003.

Paper Title:

Ecological Interface Design in Aviation Domains:

Work Domain Analysis of Automated Collision Detection and Avoidance

- Paper Accepted by HFES 2003 in late April. Conference in October, 2003.

- Programmed MS Flight Simulator plug-in to simulate TCAS II collision system.

- Prepared Technical Report as part of term course: SD 740 Topic 3.

NOTE: Details of thesis progres posted at <http://www.eng.uwaterloo.ca/~ycdho>

## **Plan for Completion of Degree Requirements**

May - August, 2003

- Refine TCAS plugin for Flight Simulator
- Research experimental design methodologies
- Propose TCAS designs for testing
- Create new TCAS plugin that meets experimental design requirements
- Possibly begin experimentation

September - December, 2003

- Deliver graduate seminar
- Perform experimentation and evaluate results
- Write and submit thesis paper