EIE3105
Integrated Project (Part II, updated)

Dr. K H Loo
Dr. Lawrence Cheung

Semester 2, 2019/20 (8 Feb 20)

Objectives

- To provide students with the concepts and techniques in designing embedded software and hardware interfaces.

Teaching Staff

- Lecturer: Dr. K. H. Loo
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Teaching Staff

- Lecturer: Dr. Lawrence Cheung
  - Office: DE628
  - Tel.: 2766-6131
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  - Consultation Hours:
    - Monday: 8:30 a.m. – 11:30 a.m.

Teaching Staff

- Tutor: Mr. Shu-yuen Lam
  - Office: DE618
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Course Schedule and Material

- Lecture
  - TUE, 3:30 p.m. – 5:20 p.m., FJ303 (Week 3 to 7)
- Laboratory
  - WED, 8:30 a.m. – 11:20 a.m., CF105 (Week 3 to 7)
  - WED, 9:30 a.m. – 11:20 a.m., CF005 (Week 8 to 15)

Course Outline

Week	Lecture/Laboratory
1 – 2	Suspended
3	Preparation for online teaching
4 – 8	Online teaching
9 – 10	Recess period

Course Outline

Week	Lecture/Laboratory
11 – 12	Lab 1 and 2
13 – 14	Demonstration 1: Car Control Development
15 – 16	Demonstration 2: Advanced Car Control Development
17 – 18	Demonstration 3: Lap Track Tracing
19	Group Presentation

Assume that 5 weeks for online teaching and 8 weeks for face-to-face teaching

Course Teaching

- Online teaching
  - Recorded Voice-over Presentations (by Dr. Lawrence Cheung)
    - Course Information
    - ARM Programming 2
    - Robot Car Development (including demonstration videos)
  - Live Lecture (by Dr. K H Loo)
    - Proportional-Integral-Derivative (PID) control

Course Teaching

- Synchronous Online Session(s)
  - Online session(s) will be created for all of you to have discussions together related to online teaching.
  - The schedule will be announced later.
- Asynchronous Online Session(s)
  - A forum will be created for you to ask us questions anytime anywhere.
- Online written assessment
  - Logbooks

Course Teaching

- Online quiz assessment
  - We will give some True-or-False / Multiple Choice questions for you to find out whether you understand the concept that we teach through online teaching or not.
  - It carries NO marks.
  - The detail will be announced later.

Course Teaching

- Online test assessment
  - We will give you an online ARM programming test.
  - You will have sufficient time to work on a simple programming question and then you submit your project with a demonstration video to Blackboard.
  - It carries ONE mark.
  - The detail will be announced later.

Course Teaching

- Face-to-face teaching
  - We expect it will resume after 28 March.
  - We will focus on laboratory sessions only unless we find that it is necessary to give some makeup lecture sessions.
  - We expect we can help students more closely in laboratory sessions.

Continuous Assessment

Component	% Weighting
Project Demonstration	35
Project Report and Presentation	10
Project Logbook	6
Test (AVR and ARM)	8
Online ARM Programming Test	1
Lab 1 and 2	4
TOTAL	64

Continuous Assessment

- Continuous assessment in Semester 1

Component	% Weighting
4 Lab Exercises (AVR)	16
2 Quizzes (AVR)	20
TOTAL	36

- Overall
  - Semester 1: 36%
  - Semester 2: 64%

Continuous Assessment

- Logbook (6%)
  - Starting from Week 13, you need to submit your logbook every week to Blackboard.
  - Write a short essay to show your progress
    - What did you do?
    - What will you do?
  - The deadline is the end of each week.

Continuous Assessment

- Lab 1: ARM Programming (2%)
  - Deadline for Demonstration: 5 pm, 3 April 2020
  - Deadline for Submission: 11:59 pm, 3 April 2020
- Lab 2: AVR and ARM Interfacing (2%)
  - Deadline for Demonstration: 5 pm, 3 April 2020
  - Deadline for Submission: 11:59 pm, 3 April 2020

Continuous Assessment

- Test: AVR and ARM Interfacing (8%)
  - Week 19 (to be confirmed)
- Online ARM Programming Test (1%)
  - To be confirmed
- Demonstrations (35%)
  - Demonstration 1: Car Control Development (15%)
  - Demonstration 2: Advanced Car Control Development (10%)
  - Demonstration 3: Lap Track Tracing (10%)

Continuous Assessment

- Report and Presentation (10%)
  - Write a short report (less than 5 pages) to describe your work in Demonstrations 1, 2 and 3.
    - Deadline: will be announced later
  - Give a 5-minute presentation with videos for Demonstrations 1, 2 and 3.
    - Week 19
    - The schedule for presentation will be posted to Blackboard.

End