M-learning at XJTLU

The Case of ICE for Mobile Devices

Yuchen Huang

April 2016

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Acknowledgements

Roland Sherwood (AEC)
Yezi Yang (AEC)
Prof. Yong Yue (CSSE)
Dr. Haining Liang (CSSE)

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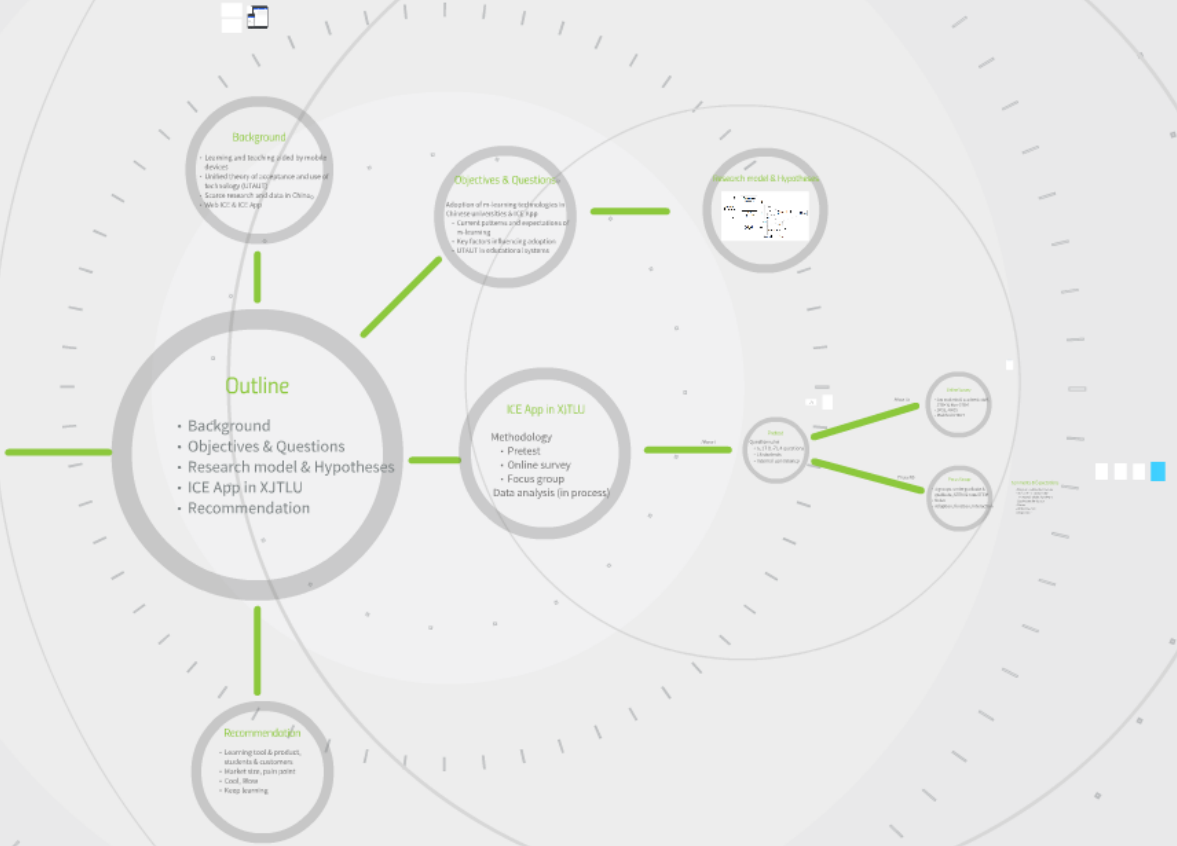

Acknowledgements

Roland Sherwood (AEC)
Yi Yi Yang (MLC)
Prof. Yang Xue (CASE)
Dr. Haining Liang (CSSL)

Thanks!
Q&A

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Outline

- Background
- Objectives & Questions
- Research model & Hypotheses
- ICE App in XJTLU
- Recommendation

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Background

- Learning and teaching aided by mobile devices
- Unified theory of acceptance and use of technology (UTAUT)
- Scarce research and data in China
- Web ICE & ICE App

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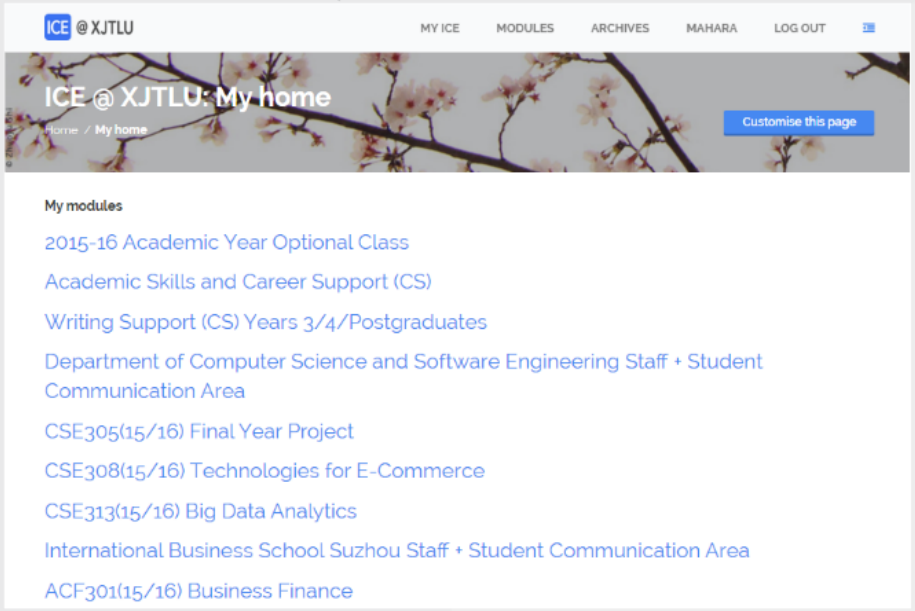
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My modules
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Academic Skills and Career Support (CS)
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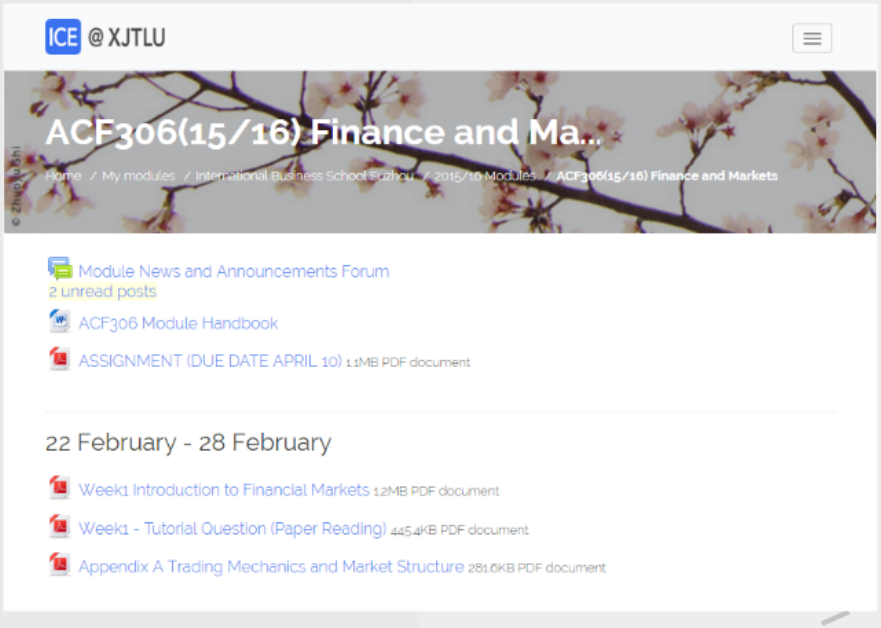
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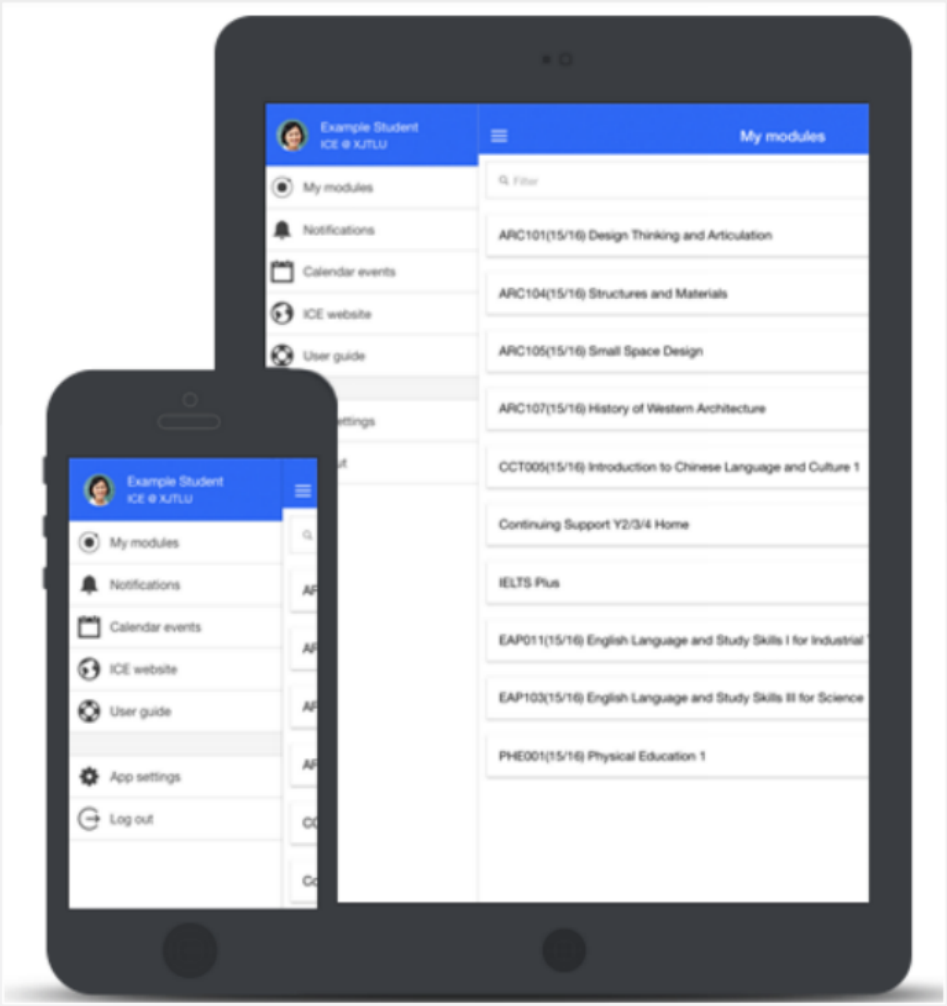
2 unread posts
ACF306 Module Handbook
ASSIGNMENT (DUE DATE APRIL 10) 1.1MB PDF document
22 February - 28 February
Week1 Introduction to Financial Markets 1.2MB PDF document
Week1 - Tutorial Question (Paper Reading) 445.4KB PDF document
Appendix A Trading Mechanics and Market Structure 281.6KB PDF document


Example Student
ICE @ XJTLU
My modules
Notifications
Calendar events
ICE website
User guide
App settings
Log out
My modules
ARC101(15/16) Design Thinking and Articulation
ARC104(15/16) Structures and Materials
ARC105(15/16) Small Space Design
ARC107(15/16) History of Western Architecture
CCT005(15/16) Introduction to Chinese Language and Culture 1
Continuing Support Y2/3/4 Home
IELTS Plus
EAP011(15/16) English Language and Study Skills I for Industrial
EAP103(15/16) English Language and Study Skills III for Science
PHE001(15/16) Physical Education 1

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Objectives & Questions

Adoption of m-learning technologies in Chinese universities & ICE App

- Current patterns and expectations of m-learning
- Key factors influencing adoption
- UTAUT in educational systems

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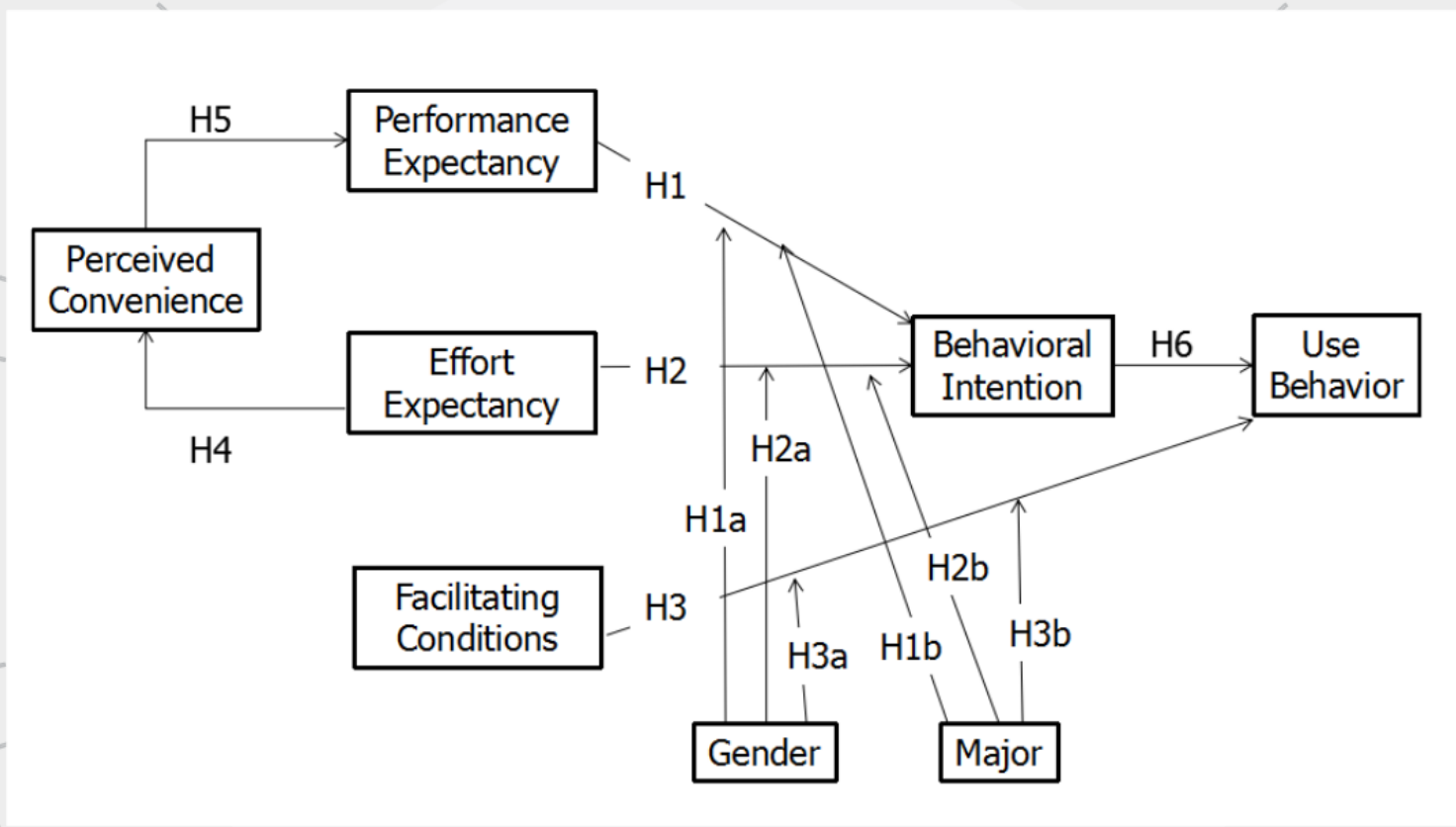
Research model & Hypotheses



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ICE App in XJTLU

Methodology

- Pretest
- Online survey
- Focus group

Data analysis (in process)

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Adoption of m-learning technologies in Chinese universities & ICE App

- Current patterns and expectations of m-learning
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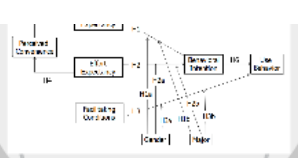

ICE App in XJTLU

Methodology

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Data analysis (in process)

Phase I

Pretest

Questionnaire

- 6, 17 (1-7), 4 questions
- 15 students
- Internal consistency

Phase IIa

Online Survey

- 200 students & academic staff, STEM & Non-STEM
- SPSS, AMOS
- Modified UTAUT

Phase IIb

Focus Group

- 4 groups, undergraduate & graduate, STEM & non-STEM
- Nvivo
- Adoption, function, interaction

Comments & Expectations

- Easy and convenient to use
- Web ICE is irreplaceable
  - Personal habits, hardware & software limitation
- Forum
- Video courses
- Promotion

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*Phase I_*

Pretest

Questionnaire

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H1 PE positively affects BI.

H1a PE affects women's BI more than men's regarding the acceptance and use of ICE App.

H1b PE affects BI more strongly in STEM majors regarding the acceptance and use of ICE App.

H2 EE positively affects BI.

H2a EE affects women's BI more than men's regarding the acceptance and use of ICE App.

H2b EE affects BI more strongly in majors of STEM regarding the acceptance and use of ICE App.

H3 FC positively affects BI.

H3a FC affect women's use of ICE App more than men's.

H3b FC affect use of ICE App more strongly in STEM majors.

H4 EE positively affects PC.

H5 PC positively affects PE.

H6 BI positively effects use of ICE App.

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Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.939	.939	17

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Phase I

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Latent variables	Operational definitions	Measured items	
Performance Expectancy (PE)	The degree to which an individual believes that using ICE App will lead to an improvement in the study performance or has a positive effect. [10]	PE1	Using ICE App would speed up my learning process.
		PE2	Using ICE App would improve my learning performance.
		PE3	Using ICE App would increase my learning productivity.
		PE4	I believe that ICE App is useful in helping me study better.
Effort Expectancy (EE)	The degree that individual believes ICE App is easy to use.[10]	EE1	Learning to operate ICE App is easy for me.
		EE2	I found it easy to get ICE App to do what I want it to do.
		EE3	I believe that ICE App is easy for me to use.
Facilitating Conditions (FC)	The degree to which an individual believes that IT department exists to support use of ICE App. [10]	FC1	I am confident that I can find help from IT Department within the university if I have issues with ICE.
		FC2	I believe that the IT Department in the university is supportive of my daily study needs.
Perceived Convenience (PC)	The level of convenience toward time, place and execution that an individual feels when using the ICE App. [1]	PC1	I like the ICE App because I can use it at any time.
		PC2	I like the ICE App because I can use it at any place.
		PC3	The ICE App makes accessing learning material very convenient.
		PC4	I feel that the ICE App and other learning apps can make learning more convenient.
		PC5	I would like to use ICE app in the future because of its convenience.
Behavioral Intention (BI)	The level of users' conscious or deliberate intention to engage in a behavior in the future. [1]	BI1	I intend to use ICE App in the future.
		BI2	I plan to use ICE App to the extent that conditions permitting.
		BI3	I will use the ICE app more regularly in the future.

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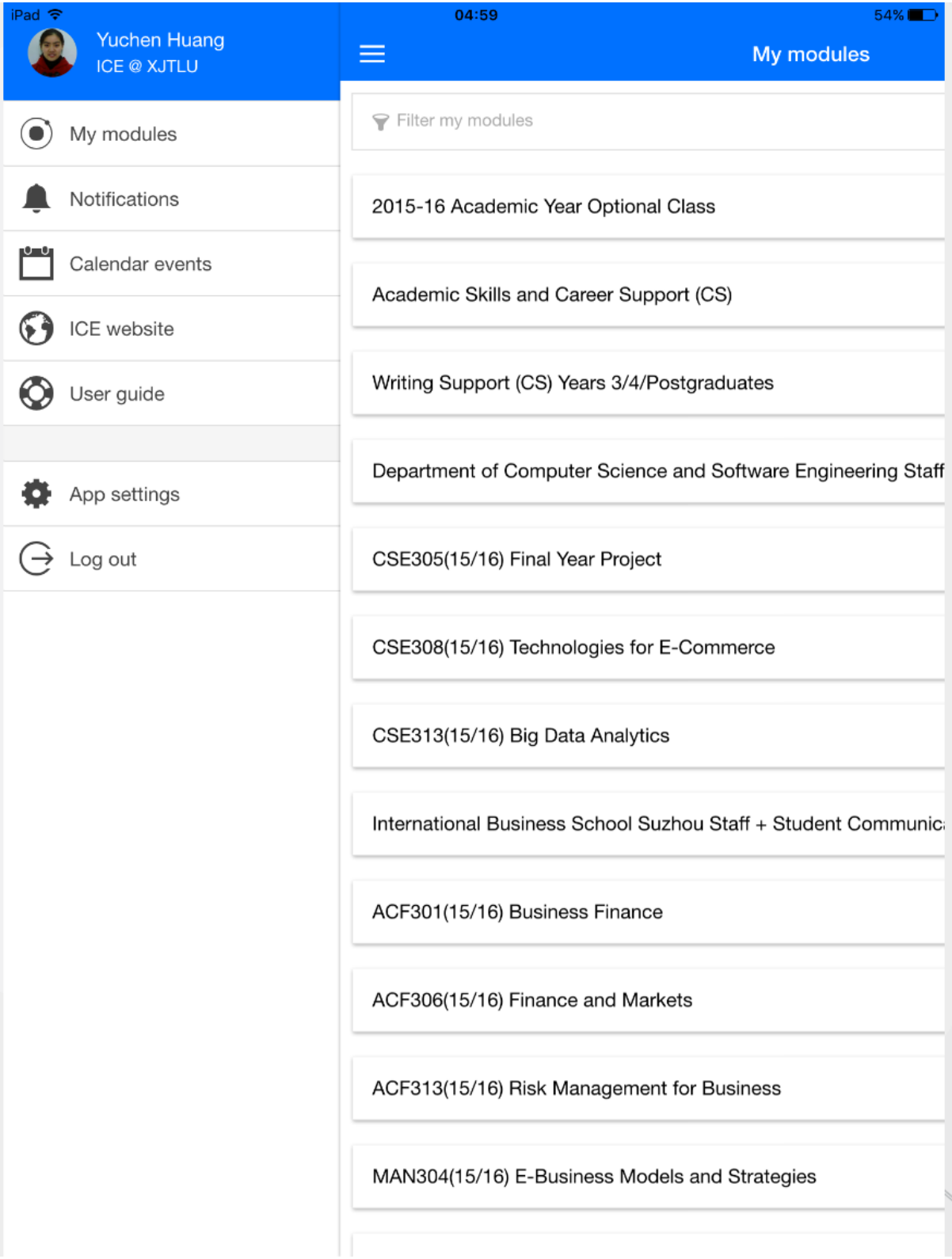
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Writing Support (CS) Years 3/4/Postgraduates
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ACF313(15/16) Risk Management for Business
MAN304(15/16) E-Business Models and Strategies

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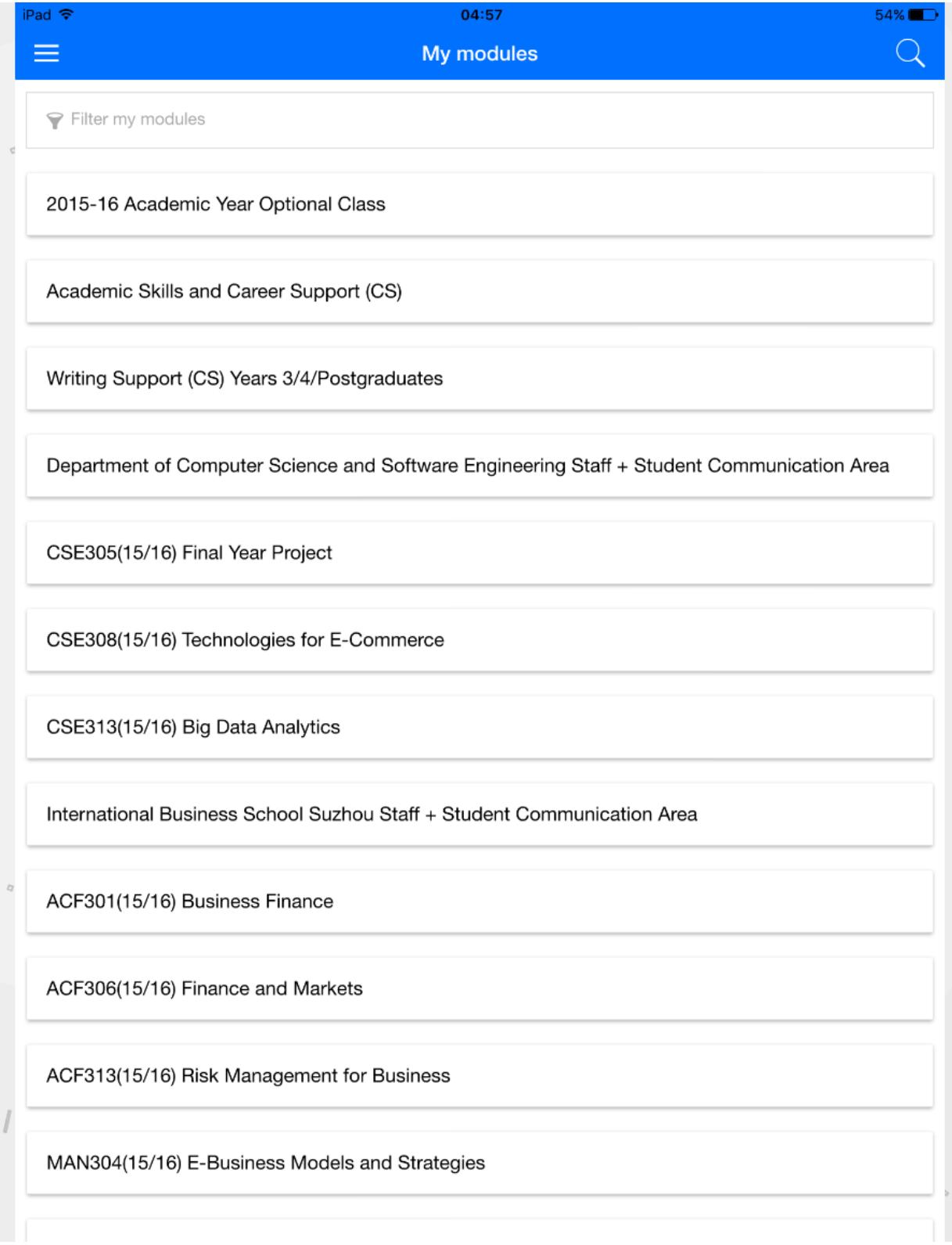
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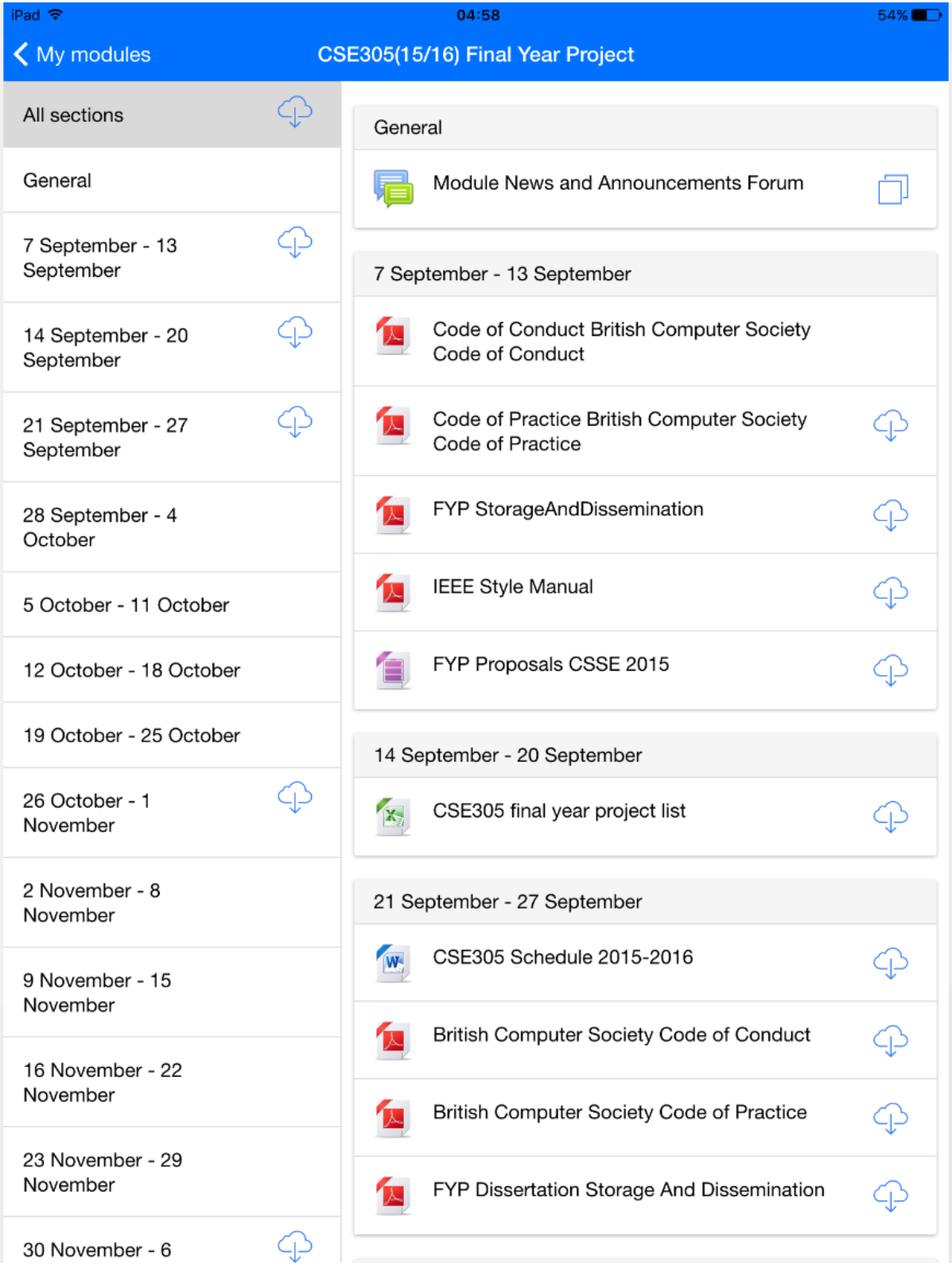
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My modules
CSE305(15/16) Final Year Project
All sections
General
7 September - 13 September
14 September - 20 September
21 September - 27 September
28 September - 4 October
5 October - 11 October
12 October - 18 October
19 October - 25 October
26 October - 1 November
2 November - 8 November
9 November - 15 November
16 November - 22 November
23 November - 29 November
30 November - 6
General
Module News and Announcements Forum
7 September - 13 September
Code of Conduct British Computer Society Code of Conduct
Code of Practice British Computer Society Code of Practice
FYP StorageAndDissemination
IEEE Style Manual
FYP Proposals CSSE 2015
14 September - 20 September
CSE305 final year project list
21 September - 27 September
CSE305 Schedule 2015-2016
British Computer Society Code of Conduct
British Computer Society Code of Practice
FYP Dissertation Storage And Dissemination

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BCS™

THE BRITISH COMPUTER SOCIETY

British Computer Society Code of Conduct

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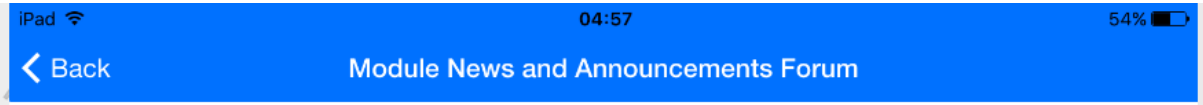

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- Forum
- Video courses
- Promotion

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Recommendation

- Learning tool & product, students & customers
- Market size, pain point
- Cool, Wow
- Keep learning

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