

Spring 2015 Mobile Social Networks

- **Instructors:** [Hung-Chin Jang](#) (National Cheng Chi University), [Chung-Ta King](#) (National Tsing Hua University), [Yuh-Jong Hu](#) (National Cheng Chi University), [Cheng-Hsin Hsu](#) (National Tsing Hua University)
- **Coordinator:** [Cheng-Hsin Hsu](#) (National Tsing Hua University), use chsu AT cs.nthu.edu.tw as the contact window.
- **Time:** Tuesdays 2:00 - 5:00 p.m.
- **Location:** IIS New Building 107, Academia Sinica
- **Office Hour:** By appointment
- **TA:** Shu-Ting Wang (kelvinstwang AT gmail.com)
- **TA Office Hour:** By appointment

Course Description

Mobile Social Networks is an emerging and exciting new research area, and the course will consist of the presentations in four directions:

1. Introduction on Mobile Social Networks
2. Mobile Social Network Services
3. Context-Aware Mobile Computing in Mobile Social Networks
4. Data Analysis and Privacy in Mobile Social Networks

In addition to presentations given by the lecturers, students are required to present recent papers on mobile social networks that are related to the topic discussed that week.

Students will also work on a term project on mobile social networks. To accelerate the project progress, Android development tutorial will be given in the first few weeks of the semester, and four Android programming projects will be given.

Textbook:

“Mobile Social Networking: An Innovative Approach,” A. Chin and D. Zhang (Eds), Springer. Available at the libraries at National Tsing Hua University and National Cheng Chi University.

References:

Related papers that can be found in ACM Digital Library, IEEE Xplore, or other online databases.

Teaching Methods:

- Presentations done by lecturers
 - Student presentations
 - Discussion
 - Programming tutorial
 - Term project: Each student is required to submit a project proposal in the first month, report his/her progress every other weeks, deliver a mid-term report by the end of April, present/demo their projects at the end of the semester, and submit a final technical report.
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Syllabus:

Tentative detailed topics to cover are:

1. Socially Aware Computing: Concepts, Technologies, and Practices (Cheng-Hsin Hsu, NTHU)
 2. Ephemeral Social Networks (Cheng-Hsin Hsu, NTHU)
 3. Social Behavior in Mobile Social Networks: Characterizing Links, Roles, and Communities (Hung-Chin Jang, NCCU)
 4. Mobile Social Service Design for Special Context (Hung-Chin Jang, NCCU)
 5. Exploiting Personal and Community Context in Mobile Social Networks (Chung-Ta King, NTHU)
 6. Enhancing Mobile Social Networks with Ambient Intelligence (Chung-Ta King, NTHU)
 7. Data Analysis on Location-Based Social Networks (Yuh-Jong Hu, NCCU)
 8. Towards Trustworthy Mobile Social Networking (Yuh-Jong Hu, NCCU)
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Grading:

- Assignments (20%): 4 times
- Android Programming Projects (40%): 4 projects
- Term Project (40%): This includes presentations (15%), technical reports (5% proposal, 5% mid-term, 10% final), and project demonstrations (5%).

Week	Tuesdays	Student Presenters	Deadline (before the Tuesday lecture starts)
1: Feb 24	Introduction on Mobile Social Networks <i>(Cheng-Hsin Hsu, NTHU)</i>		
2: Mar 3	Socially Aware Computing: Concepts, Technologies, and Practices <i>(Cheng-Hsin Hsu, NTHU)</i>		
3: Mar 10	Ephemeral Social Networks <i>(Cheng-Hsin Hsu, NTHU)</i>		
4: Mar 17	Mobile Social Network Services <i>(Hung-Chin Jang, NCCU)</i>		Homework #1 Introduction on Mobile Social Networks <i>(Cheng-Hsin Hsu, NTHU)</i>
5: Mar 24	[Tutorial #1] Environment setup: My First Android Project, [Tutorial #2] Basic User Interface: Activity and Action Bar <i>(Cheng-Hsin Hsu, NTHU; Shu-Ting Wang, NTHU)</i>		
6: Mar 31	Social Behavior in Mobile Social Networks: Characterizing Links, Roles, and Communities <i>(Hung-Chin Jang, NCCU)</i>	Proposal (All Students)	Proposal
7: Apr 7	[Tutorial #3] Advanced User Interface: Fragment and Layout, [Tutorial #4] Multithreading: Handler and AsyncTask <i>(Cheng-Hsin Hsu, NTHU; Shu-Ting Wang, NTHU)</i>		[Programming #1] A Bluetooth chat app with a Bluetooth devices discovery logger <i>(Cheng-Hsin Hsu, NTHU; Shu-Ting Wang, NTHU)</i>
8: Apr 14	Mobile Social Service Design for Special Context <i>(Hung-Chin Jang, NCCU)</i>		
9: Apr 21	[Tutorial #5] Data Management: Content Provider and Database, [Tutorial #6] Networking: WiFi and Bluetooth <i>(Cheng-Hsin Hsu, NTHU; Shu-Ting Wang, NTHU)</i>		Homework #2 Mobile Social Network Services <i>(Hung-Chin Jang, NCCU)</i> , [Programming #2] Splitted display showing news data from different sources <i>(Cheng-Hsin Hsu, NTHU; Shu-Ting Wang, NTHU)</i>

10: Apr 28	Context-Aware Mobile Computing in Mobile Social Networks (Chung-Ta King, NTHU)	Mid-Term Presentation (All Students)	Technical report draft (mid-term checkpoint)
11: May 5	[Tutorial #7] Multimedia: Exo Player and Camera, [Tutorial #8] Integration: Facebook API (Cheng-Hsin Hsu, NTHU; Shu-Ting Wang, NTHU)		[Programming #3] An Image gallery that fetches images from the web and maintains a small local database (Cheng-Hsin Hsu, NTHU; Shu-Ting Wang, NTHU)
12: May 12	Exploiting Personal and Community Context in Mobile Social Networks (Chung-Ta King, NTHU)		
13: May 19	Enhancing Mobile Social Networks with Ambient Intelligence (Chung-Ta King, NTHU)		[Programming #4] A Facebook online viewer or a customized Gmail client (Cheng-Hsin Hsu, NTHU; Shu-Ting Wang, NTHU)
14: May 26	Data Analysis and Privacy in Mobile Social Networks (Yuh-Jong Hu, NCCU)		Homework #3 Context-Aware Mobile Computing in Mobile Social Networks (Chung-Ta King, NTHU)
15: Jun 2	Data Analysis on Location-Based Social Networks (Yuh-Jong Hu, NCCU)		
16: Jun 9	Towards Trustworthy Mobile Social Networking (Yuh-Jong Hu, NCCU)		
17: Jun 16	Final presentation + demo (Cheng-Hsin Hsu, NTHU; Shu-Ting Wang, NTHU)	Final Presentation (All Students)	Homework #4 Data Analysis and Privacy in Mobile Social Networks (Yuh-Jong Hu, NCCU)
18: Jun 23	Final exam week, no class		Final technical report due on Jun 23, 2:00 p.m..