

TIGP SNHCC 2023 Fall Syllabus

Introduction to Social Networks (SN)

Place: Room 107, New Building, IIS, AS / Microsoft Team

Time: 9:00-12:00 Thurs

Chair: Dr. Yi-Shin Chen

Outline: The objective of this course is to assist students to understand the major concepts involved in social network analysis. Through lectures and lab assignments, students can obtain the ability to conduct research studies related to social networks. The subjects in this course are divided into the following themes:

- Introduction to graph theory
- Graph analysis: community detection, and graph embedding
- Social network analysis: link prediction and privacy in social networks
- User profiling and recommendation systems in social networks
- Text mining and analysis in social networks

References:

- Social Network Data Analytics, Charu C. Aggarwal (Ed.), Springer 2011
- Data Mining: Concepts and Techniques, J. Han, M. Kamber, and J. Pei, 3rd edition, Morgan Kaufmann, 2011.
- Introduction to Data Mining, P.N. Tan, M. Steinbach, and V. Kumar, Addison Wesley, 2006.

TA: Office hours: by appointment

Grades: Exam 20%; Homework 60%; Paper Presentation 20%

For the most updated syllabus, please visit <https://tigpsnhcc.iis.sinica.edu.tw/course.html#s1>

Week	Date	Topics/Brief Description	Lecturers
1	2023/09/14	Class Introduction + Overview of DM 【Webex Only】	Yi-Shin Chen
2	2023/09/15 Fri @O108	Introduction to Graph Theory (I)	Tung-Wei Kuo
2	2023/09/22 Fri @O108	Introduction to Graph Theory (II)	Tung-Wei Kuo
3	2023/09/29	Moon Festival Holiday	
4	2023/10/06 Fri @O108	Social Network Paper Presentation I	Tung-Wei Kuo
5	2023/10/12	Social network analytics I	Mi-Yen Yeh
6	2023/10/19	Social network analytics II + Lab	Mi-Yen Yeh
7	2023/10/26	Link Prediction	De-Nian Yang
8	2023/11/02	Privacy in Social Networks + Lab	De-Nian Yang
9	2023/11/10 Fri @O108	Social Network Paper Presentation II	Tung-Wei Kuo
10	2023/11/16	Text Mining in Social Networks (I) 【Webex Only】	Yi-Shin Chen
11	2023/11/23	Text Mining in Social Networks (II) 【Webex Only】	Yi-Shin Chen
12	2023/11/30	Lab3: Python Tools for Text Mining 【Webex Only】	Yi-Shin Chen
13	2023/12/07	Recommendation Systems I	Ming-Feng Tsai
14	2023/12/14	Recommendation Systems II	Ming-Feng Tsai
15	2023/12/21	Lab4: Python Tools for Recommendation Systems	Ming-Feng Tsai
16	2023/12/28	Final Exam	

