

TIGP SNHCC 2022 Fall Syllabus

Introduction to Social Networks (SN)

Place: O108, IIS, AS
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 (lab) 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	2022/09/15	Class Introduction + Overview of DM	Yi-Shin Chen
2	2022/09/23	Introduction to Graph Theory (I)	Tung-Wei Kuo
3	2022/09/30	Introduction to Graph Theory (II)	Tung-Wei Kuo
4	2022/10/07	Social Network Paper Presentation I	Tung-Wei Kuo
5	2022/10/13	Social network analytics I	Mi-Yen Yeh
6	2022/10/20	Social network analytics II	Mi-Yen Yeh
7	2022/10/27	Lab 1 : Python Tools for Social networks analytics	Mi-Yen Yeh
8	2022/11/04	Social Network Paper Presentation II	Tung-Wei Kuo
9	2022/11/10	Link Prediction	De-Nian Yang
10	2022/11/17	Privacy in Social Networks	De-Nian Yang
11	2022/11/24	Lab 2: Python Tools for Link Privacy	De-Nian Yang
12	2022/12/01	Text Mining in Social Networks (I)	Yi-Shin Chen
13	2022/12/08	Text Mining in Social Networks (II)	Yi-Shin Chen
14	2022/12/15	Lab3: Python Tools for Text Mining	Yi-Shin Chen
15	2022/12/22	Recommendation Systems I	Ming-Feng Tsai

16	2022/12/29	Recommendation Systems II	Ming-Feng Tsai
17	2023/01/05	Lab4: Python Tools For Recommendation Systems	Ming-Feng Tsai
18	2023/01/12	Final Exam	