



Social Network Analysis 5-Day Workshop: Theory, Methods and Applications

Monday 17/02/2020 (9.30am) - Friday 21/02/2020 (5.00pm)

AGSE202 Lecture Theatre
Swinburne University of Technology
1 John Street
Hawthorn, VIC 3122

Price-range: \$1,650-\$3,300

Description

In this 5-day intensive workshop you will learn how to conduct social network research, moving from the fundamentals of networks to how to use cutting-edge statistical network models. Some general statistical knowledge is assumed (e.g., logistic regression). You will require your own PC laptop (or Mac with Windows installed – Mac OS is not supported). The course will cover the following key themes:

- Statistical Inference with network data
- Software for visualisation and analysis
- Representing network data: from basics to advanced
- Networks in action: Case studies
- Applying SNA
- One-on-one consultation times and group problem solving tasks

Day 1: Network Fundamentals

- What is distinctive about social network research?
- Network data: Representations and formats
- Qualitative versus quantitative data collection
- Primary versus secondary data sources
- Ethics for network research
- Organisational network methods
- Data entry, data processing and management
- Group allocation and briefing

Day 2: Key Concepts & Descriptive SNA

- Social Selection vs Social Influence
- The building blocks of networks: density; reciprocity; degree; connectivity; centrality; clustering; and preferential attachment (popularity)
- Multiplex and bipartite networks
- Introductory approaches to statistical inference

Day 3: Introduction to ERGMs

- What are exponential random graph models (ERGMs)?
- Formation of network structure
- MPNet software for network models
- Working with graph distributions
- Network dependence & emergence
- Estimating ERGMs (modelling network data)

Day 4: ERGM extensions

- Simulation and Goodness of Fit with ERGM
- Estimating directed ERGMs
- Estimating ERGMs with actor attributes
- ALAAMs – social influence models
- Problem solving for model fit

Day 5: Network Evaluation & Presentations

- Network effectiveness
- Network evaluation
- Network problem solving
- Group presentations

The course includes all course exercise materials, lunch and afternoon tea.

Lecturers: Prof Dean Lusher, Dr Peng Wang, Prof Garry Robins, Dr Johan Koskinen, Dr Colin Gallagher, Dr James Coutinho, and Dr Maedeh Aboutelabi Karkavandi

Discounts for Swinburne staff and students who should contact Prof Dean Lusher about payment by internal transfer. Email: dlusher@swin.edu.au

TICKETS AND FURTHER INFORMATION:

<https://www.eventbrite.com.au/e/social-network-analysis-5-day-workshop-theory-methods-and-applications-tickets-81626682605?aff=erelexpmlt>