CRC Press
Taylor & Francis Group

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Important Dates

Announcement of Call for Chapters:
December 1, 2021

Submission of Book Chapters:
December 31, 2022

Reviews and Feedbacks:
January 15-30, 2023

Revised Submission:
March 15-30, 2023

Draft and Finalize the Book:
April 15-30, 2023

Call for Book Chapters:

Social Epidemic Network (SEN)

To be published by CRC Press Taylor & Francis Group, USA

This book aims to offer a set of readings as chapters synthesizing how epidemics can be seen as social and modelled as networks for an understanding network of contagions such as epidemic surveillance and monitoring, sentinel, and syndromic surveillance methods for detecting epidemics, modelling epidemics and their propagation with different scalability and accuracy using networks and managing and decision making of public health surveillance with timely responses. There is a growing and wider community interest to consider epidemics from the perspective of social determinants. The idea that epidemics and their outbreak in the human population can be viewed from the social perspective began in the early 19th century, which increased in interest due to the social contagion effect in understanding Spanish flu, which killed over half a billion people worldwide. The notion that epidemics can spread through social interactions for a wider population also created an interest to explore epidemic modelling by taking a network approach. Taking a network approach, scientists and public health professionals began to explore how disease can spread through a touch of networks and spread across a wider percent of the population as they socially connect with each other individually or in a group setting. The network approach further offered scientists interested in epidemic modelling a set of predictive tools to model epidemics quantitatively and scale up the empirical investigation using complex network principles such as the small-world networks, degrees of separation, homophily, and preferential attachments, and different degrees of centrality. These complex network algorithms and design approaches offer the opportunity to mathematically model how social processes, including group dynamics combined with the aspects of social determinants of healthcare, can be used to model, understand as well as create effective interventions for epidemics. This book will cover areas of advancement in computation such as complex networks, graph-theoretic algorithms, AI, machine learning, computational natural language processing, and its application in modelling epidemic networks. We also focus on exploring how increased use of technology at a wider population level where massive online information generation and consumption can be used to develop quantitative models for disease propagation for improving public health surveillance, monitoring, and effective response. Please see below specific parts and tentative chapters for the book on Social Epidemic Networks or SEN:

Part 1: Introduction to Epidemics, Networks, and Systems:
- 1.1 Historic transitions of the epidemics.
- 1.2 Current days of the contagions.

Part 2: Epidemic Network of Contagions, Surveillance, and Monitoring:
- 2.1 Sentinel vs. syndromes.
- 2.2 Syndromic surveillance.

Part 3: Detecting Epidemics Methods:
- 3.1 Statistical methods for detection of infectious disease.
- 3.2 Computational Natural Language Processing.
- 3.3 Machine learning.
- 3.4 Spatiotemporal analysis.
- 3.5 Metaheuristic for community detection.

Part 4: Modelling of Epidemics:
- 4.1 Review of modelling approaches for epidemics (transition of modelling approaches from classic to modern approaches).

Part 5: Managing and Decision Making:
- 5.1 The policy implication of information sharing.
- 5.2 Future training of the workforce.

Submission Guidelines

Colleagues interested in the broader theoretical, methodological, and domain-specific work related to social epidemic networks are requested to submit a 5-6,000 words chapter related to the aforementioned areas and or areas related to the book's overall aim described here. Each submitted book chapter will be blind peer-reviewed by two other authors. All chapters must be original and not simultaneously submitted to another book, journal, or conference.

Prospective authors are required to submit the book chapter to the below link:
https://easychair.org/conferences/?conf=sen01
All book chapters should be prepared in Latex/MS Word format according to Taylor & Francis Group's guidelines for manuscript preparation; please refer to the link below:

https://authorservices.taylorandfrancis.com/publishing-your-research/writing-your-paper/journal-manuscript-layout-guide/