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Jia-Wei Chang *Editors*

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Preface

This LNEE volume contains the papers presented at the International Conference on Frontier Computing (FC 2021) virtually held online on July 14, 2021. This event is the 11th event of the series, in which fruitful results can be found in the digital library or conference proceedings of FC 2010 (Taichung, Taiwan), FC 2012 (Xining, China), FC 2013 (Gwangju, Korea), FC 2015 (Bangkok, Thailand), FC 2016 (Tokyo, Japan), FC 2017 (Osaka, Japan), FC 2018 (Kuala Lumpur, Malaysia), FCABH 2019 (Taichung, Taiwan), FC 2019 (Kitakyushu, Japan), FC 2020 (virtual event), and FC 2021 (virtual event). This conference is expected to bring together researchers and practitioners from both academia and industry to meet and share cutting-edge development in the field. One colocated event, namely International Conference on Machine Learning on FinTech, Security and Privacy (MLFSP 2021), is jointly held with high appreciations from the participants.

The papers accepted for inclusion in the conference proceedings primarily cover the topics: database and data mining, networking and communications, Web and Internet of things, embedded system, soft computing, social network analysis, security and privacy, optics communication, and ubiquitous and pervasive computing. Many papers have shown their academic potential and value and indicate promising directions of research in the focused realm of this conference. We believe that the presentations of these accepted papers will be more exciting than the papers themselves and lead to creative and innovative applications. We hope that the attendees and readers will find these results useful and inspiring to your field of specialization and future research.

On behalf of the organizing committee, we would like to thank the members of the organizing and the program committees, the authors, and the speakers for their dedication and contributions that make this conference possible especially to FC conference group and Korean Institute of Information Technology, Korea Institute of Information Technology and Innovation (KIITI), and SIEC Korea Chapter. We appreciate the contributions from these experts and scholars to enrich

our event. We would take the chance to thank and welcome all participants, and hope that all of them enjoy the technical discussions within the conference period, build a strong friendship, and establish ties for future collaborations.

Jason C. Hung
Neil Y. Yen
Jia-Wei Chang

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An Analysis of the Research Situation of China's National Security—Based on the Perspective of Social Network Analysis

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Abstract. [Objective/Meaning] As a new discipline, national security has developed rapidly in China in recent years. It is more intuitive and clearer to use social networks to conduct research situation analysis. [Methods] The main methods of this study include: keyword analysis, bi-cluster thematic analysis, citation curve analysis, author role research, research institution role research. [Procedures] This article is based on the keywords of "National Security|National Security Concept" in the CNKI database from 1997 to 2016, using SCI, CSSCI, Peking University core journals and other databases as the journal source, using the network analysis software Ucinet, Gephi professional functions and the drawing software Origin8 conducts research and analysis on keywords, authors, research institutions, and the number of citation documents, draws network maps, citation curves, and explores the development trend of China's national security studies. [Results/Conclusions] Although China's national security studies are an emerging discipline, preliminary construction has been completed. From the traditional level of national security studies to "network security", "data security", and "ideology" Security "and other soft power security transitions. It is precisely because of the numerous branches and rapid updates of the discipline of international security that the relationships between scholars involved in research are not as close as in other disciplines. However, the number of institutions participating in the research is very large. Among them, Peking University, the Chinese Academy of Sciences, and the Institute of International Relations are the main institutions.

Keywords: Social network · National security · Citation curve · Visualization · Origin8 · Ucinet

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