Preface

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Biographical notes: Vishal Bhatnagar holds a BE, MTech and PhD in the Engineering field. He has more than 21 years of teaching experience in various technical institutions. He is currently working as a Professor in the Computer Science and Engineering Department at Netaji Subhash University of Technology East Campus (Formerly Ambedkar Institute of Advanced Communication Technologies and Research), Delhi, India. His research interests include data-mining, social network analysis, data science and big data analytics. He has to his credit more than 134 research papers in various international/national journals, conferences and book chapters. He is currently working as an associate editor of few journals of the IGI Global and Inderscience. He has to his credit experience of handling special issues of many Scopus, ESCI and SCIE journals. He has also worked as an editor of many edited books of the Springer, IGI Global, CRC Press, to name a few.

Vikram Bali is a Professor and Head-CSE at the JSS Academy of Technical Education, Noida, India. He has published more than 50 research papers in international journals/conferences/edited books, authored five text books and published six patents. He is on editorial board, review panel, member of organising committee for various national-international seminars/conferences/journals and series editor for three book series of the CRC Press. He is a life time member of the IEEE, ISTE, CSI and IE. He was awarded Green Thinker Z-Distinguished Educator Award 2018 for remarkable contribution in the field of computer science and engineering at 3rd International Convention on Interdisciplinary Research for Sustainable Development, Chandigarh.

Harmunish Taneja is a Senior Assistant Professor at the DAV College, Sector 10, Panjab University, Chandigarh. He obtained his PhD in Computer Science and Applications from the Kurukshetra University, Kurukshetra. He is having more than 21 years of teaching and research experience. He has guided five MPhil students and more than 90 PG students of various universities. Four students are pursuing PhD under his guidance. He is a reviewer of many reputed journals and has been review committee member of many conferences. His research interests are information computing, mobile ad hoc networks, image processing, data science, recommender systems and system simulation. He has published and presented over 50 papers in international journals/conferences of repute. He has also authored books of computer science and applications.

Vineet Kansal has graduated in Computer Engineering from the GB Pant University of Agriculture and Technology, Pantnagar and obtained his MTech and PhD from IIT Delhi. He has been in academics for more than 28 years. Currently, he is a Professor in the Computer Science and Engineering Department, Institute of Engineering Technology, Lucknow, and Pro Vice-Chancellor of Dr. APJ Abdul Kalam Technical University, Lucknow Uttar Pradesh. He has been the Dean (UGSE) at the Dr. APJ Abdul Kalam Technical University, Lucknow. His area of research interest includes data analytics, machine learning, artificial intelligence, networking, cloud computing, big data analytics and optimisation.

Coronavirus disease (COVID-19) is one of the worst crises faced by people globally, even after being compared with already known viruses or world wars. The world has come to lockdown state many a times after fighting against the coronavirus. People are facing a sudden need for change in their lifestyle and societal relationship which used to prevail before the pandemic of COVID-19. It is important to maintain social distancing and a high level of hygiene. The technologies which were of utmost importance before the onset of pandemic are now being under-utilised while many technological changes are now becoming a daily routine in the general lifestyle. We all have been experiencing the effects of COVID-19, it was just the right time to introduce this special issue titled 'The impact and importance of networking and virtualisation in a post-COVID-19 scenario' of *International Journal of Networking and Virtual Organisations*. The issue provided a platform to pen down valuable concerns and showcase remedial solutions to the world in the form of research findings, innovations and suggestions which are validated experimentally.

The main focus of this special issue is to provide an insight with good quality research on the impact and importance of networking and virtualisation in the

post-COVID-19 pandemic. The sudden need for online classes in schools and colleges along with online business meetings has shown the importance of virtualisation and networking, which are the needs of the hour in order to maintain economic stability in any country. With new technological developments, there arises the security and authentication concerns that needs immediate attention. This issue has encouraged researchers to submit original works which will pave the way for the future with adaptability in light of improved networking and virtualisation during and post-COVID-19. Research in the areas of artificial intelligence, neural network, genetic algorithm, financial forecasting, remote working, sensor network, analytic hierarchy process (AHP), block chain, virtual reality and other such allied computing technologies will be able to strengthen the usage of networking and virtual concepts. This issue presents research work that will be able to meet the requirements of the post-COVID-19 pandemic scenario. The bigger idea is to provide a service to the world by bringing together the engineering and technological solutions to bring back the life to normal for a common man.

This special issue is a collection of the seven papers which are written by eminent professors, researchers and industry people from diverse research areas. The papers were peer reviewed by the spectrum of reviewers, editorial board members and industry people with diversified expertise.

In paper, 'COVID-19 and its impact on global virtual teams: exploring the unexplored' influence of internationally disruptive events like COVID-19 pandemic on global virtual teams, particularly those in which team members have never met in person is analysed. Research also explored participants' perception of the higher education institutions towards online learning and attitude of corporate organisations towards remote working in the coming years. Results of the study are promising in throwing light on the insight created via narratives.

In paper, 'An IoT and artificial intelligence-based patient care system focused on COVID-19 pandemic', authors have highlighted significant issues like the identification of the epidemic's source, the spread rate control, and adequacy of healthcare for all patients. Digital technology, particularly the internet of things (IoT) is used as an essential tool to combat and control the spread of the pandemic to minimise the economic loss and disruption. The paper proposed a machine learning prediction model using Orange Canvas Program by creating a local instance dataset of eight suspected individuals measured body parameters. The results show that the proposed machine learning model successfully detects COVID-19 with the highest accuracy value obtained with neural networks.

In paper, 'Analysis of low-cost electronic device for diagnosis of COVID-19', a design of a low-cost electronic device for coronavirus disease 2019 (COVID-19) diagnosis at home with the help of symptoms is proposed. The device checks patient's temperature with the help of thermal sensors, oxygen saturation in blood through pulse-oximeter and cough by exploiting artificial intelligence. The rest of the symptoms are diagnosed with a survey-based system where the respondents will be asked to self-report various symptoms.

In paper, 'PlasmaBlock: a plasma donation blockchain system in COVID-19', a decentralised platform for plasma donation registration and plasma matching within the plasma donation centres of the country has been proposed using blockchain technology to speed up the process of convalescent plasma therapy as a treatment of patients suffering

from COVID-19. The proposed system uses smart contract to find appropriate plasma matches for the critical patients to locate the required blood group plasma.

In paper, 'AHP-based evaluation of critical barriers for social distancing in India during COVID-19 pandemic', the critical barriers in social distancing in India during COVID-19 are analysed using AHP technique along with experts' opinions to identify the said critical barriers. Twelve critical barriers have been compared and evaluated using AHP method to get ranked in terms of priorities. The results presented in the paper may be utilised by the policy manufacturers for nurturing adequate reforms and policies to effectively deal with current pandemic considering the relative importance of these critical barriers in social distancing management post-COVID 19.

In paper, 'Students' perspective on online teaching in higher institutions during COVID-19 pandemic', it is explored that whether students of the developing countries are contented with the innovation of online education introduced by all higher establishments worldwide as a result of COVID-19. The study presented in paper evaluates the effect of online teaching during COVID-19 lockdown on students in the developing countries (like Nigeria). The study findings highlighted that an overwhelmingly greater number of the scholars are incapable of connecting to the internet owing to technological and fiscal problems. Additional concerns emphasised by university scholars are need of one-on-one contact with the teacher, reaction period lag and non-appearance of typical teaching space socialisation.

In paper, 'Stock movement prediction using neuro genetic hybrid approach and impact on growth trend due to COVID-19', it is elaborated that artificial neural network (ANN) is one of the most popular method to analyse the stock trend and forecasting the future direction of stock market particularly in post-COVID-19 times. In this paper, a study is presented to reflect the applicability of ANN and a hybrid approach of ANN-genetic algorithm in the prediction of share price of ICICI Bank (a leading private bank in India and listed in National Stock Exchange) in India. The study supports the analysis of the impact of the COVID-19 on the future growth direction of the bank.

We wish all our readers and their family members good health and prosperity.