About the Contributors

Parth Bhavsar is an Assistant Professor in the Department of Civil and Environmental Engineering at Rowan University. Prior to joining Rowan University, he was a postdoctoral fellow in the Glenn Department of Civil Engineering at Clemson University. He also received his Ph.D. degree in August, 2013, and M.S. degree in December, 2006, from the Clemson University. His research interests include intelligent transportation system, connected and automated vehicle technology, machine learning in transportation engineering, and alternative fuel vehicles. He has published in peer-reviewed journals such as the *Transportation Research Part C: Emerging Technology* and *Transportation Research Part D: Transport and the Environment.* He also has more than 3 years of industry experience in the development of transportation engineering and planning solutions.

Nidhal Bouaynaya received the B.S. degree in Electrical Engineering and Computer Science from the Ecole Nationale Supérieure de L'Electronique et de ses Applications (ENSEA), France, in 2002, the M.S. degree in Electrical and Computer Engineering from the Illinois Institute of Technology, Chicago, in 2002, the Diplôme d'Etudes Approfondies in Signal and Image processing from ENSEA, France, in 2003, the M.S. degree in Mathematics and the Ph.D. degree in Electrical and Computer Engineering from the University of Illinois at Chicago, in 2007. From 2007 to 2013, she was an Assistant then Associate Professor with the Department of Systems Engineering at the University of Arkansas at Little Rock. Since 2013, she joined Rowan University, where she is currently an Associate Professor with the Department of Electrical and Computer Engineering. Dr. Bouaynaya won the Best Student Paper Award in Visual Communication and Image Processing 2006, the Best Paper Award at the IEEE International Workshop on Genomic Signal Processing and Statistics 2013 and the runner-up Best Paper Award at the IEEE International Conference on Bioinformatics and Biomedicine 2015. She is currently serving as an Associate Editor for EURASIP Journal on Bioinformatics and Systems Biology. Her current research interests are in biomedical signal processing, medical imaging, mathematical biology, and dynamical systems.

Richard R. Brooks is a Professor in the Holcombe Department of Electrical and Computer Engineering, Clemson University, Clemson, South Carolina. His research concentrates on computer and network security. He has a B.A. from The Johns Hopkins University and a Ph.D. in Computer Science from Louisiana State University. His research has been funded by DARPA, ONR, ARO, AFOSR, NIST, US Department of State, and BMW Corporation.

Juan Deng received her M.S. in the Department of Automation from Science and Technology of China (Hefei, China) in 2006, and Ph.D. in the Department of Electrical and Computer Engineering from Clemson University (Clemson, SC, USA) in 2011. Her research interests are network security, connected vehicle and security, software defined networking, and network function virtualization.

Dimah Dera is a Ph.D. student with the Department of Electrical and Computer Engineering at Rowan University working under the supervision of Dr. Nidhal Bouaynaya. She has obtained her B.S. in Biomedical Engineering from Damascus University, Damascus, Syria, in 2010, and her M.S. in Electrical and Computer Engineering, Rowan University, 2015. Prior to joining Rowan University, she interned and worked with different companies in the Biomedical Engineering field in various countries, including Philips Inc., Beirut, Lebanon and Istanbul, Turkey, Original Medical Co., Al-Faisaliah Medical Systems Co., and Hamish Hospital, Damascus, Syria. Her research interests include biomedical and statistical signal and image processing, and networks analysis in systems biology.

Yu Fu is a Ph.D. candidate in the Holcombe Department of Electrical and Computer Engineering, Clemson University, Clemson, SC. She received B.S. in Electrical Engineering from East China University of Science and Technology (ECUST), Shanghai, China. Her research interests include network traffic analysis, protocol mimicry, and botnet markets.

Venkat N. Gudivada is a Professor and Chair of the Computer Science Department at East Carolina University. He received his Ph.D. in Computer Science from the University of Lousiana at Lafayette, USA. His current research interests include data management, information retrieval, written and spoken language understanding, high-performance computing, and personalized e-learning.

Oluwakemi Hambolu is a Ph.D. candidate in the Holcombe Department of Electrical and Computer Engineering, Clemson University, Clemson, SC. She received M.S. degree in Computer Engineering from Clemson University, B.S. in Electrical and Electronics Engineering from Ahmadu Bello University, Zaria, Nigeria. Her research interests include anticensorship technologies, digital currencies, and data anonymization.

Nathan Huynh is an Associate Professor at the University of South Carolina. He received his Ph.D. and M.S. in Transportation Engineering from the University of Texas at Austin. His research interests include intermodal freight terminal design and operations, intermodal freight transportation, and freight transportation planning and logistics.

Ken Kennedy is a data analyst at BMW IT Research Center in Greenville, SC, USA. He focuses on how to use big data and machine/deep learning within different departments of BMW Group. He received a doctorate in Computer Science from Clemson University, SC, USA, in 2008.

Sakib M. Khan, a Ph.D. student at Clemson University, Clemson, SC, received his M.Sc. degree in Civil Engineering from Clemson University in 2015. He is conducting research on intelligent transport system with a focus on connected and autonomous vehicle technology. Previously he served as a Lecturer at the Presidency University in Dhaka, Bangladesh.

Inna Kouper is a Research Scientist and Assistant Director of the Data to Insight Center at Indiana University, Bloomington, Indiana, USA. Her research interests are in the history and sociology of knowledge production and dissemination, with a particular emphasis on the sociotechnical (STS) approaches to emerging technologies and data practices. As a former Council on Library and

Information Resources (CLIR) postdoctoral fellow in data curation, Kouper is also actively engaged in efforts to build cyberinfrastructure for data analytics, sharing, and preservation. Dr. Kouper has a Ph.D. in Information Science from Indiana University Bloomington and a Ph.D. in Sociology from the Institute of Sociology, Russian Academy of Sciences, Moscow, Russia.

Andre Luckow is a Project Manager at BMW IT Research Center in Greenville, SC, USA. In his role, he is responsible for technology scouting, the definition of strategic research areas, and for carrying out research projects and collaborations. Further, he is an Adjunct Assistant Professor at Clemson University, SC. He studied computer science at the Potsdam University, Germany, where he obtained his doctorate degree in 2009. His research interests lie at the intersection of scientific and automotive applications and distributed, data-intensive infrastructures.

Ethan T. McGee is a Ph.D. candidate at Clemson University (CU) of Clemson, SC, and a member of the Strategic Software Engineering Research Group (SSERG) under John D. McGregor. His research interests include dynamic adaptive software and the effects of architectural decisions on the attributes of embedded systems. He has aided in the engineering of systems present in large manufacturing groups such as BMW, Bosch, and he has conducted research on safety-critical software systems with the SSERG at CU.

John D. McGregor is an Associate Professor of Computer Science at Clemson University, and a Software Architecture Researcher at the Software Engineering Institute. He regularly engages large software development organizations at all levels from strategic to tactical to the concrete. His research interests include highly reliable software-intensive systems, software product lines, sociotechnical ecosystems, model-driven development, and software/system architecture. He serves on the program committee of 6 to 10 conferences per year. He researches, writes, and practices strategic software engineering. His consulting has included satellite operating systems, telephony infrastructure, cell phones, software certification, and software defined radios. He holds a Ph.D. in Mathematics from Peabody College of Vanderbilt University.

Chu Cong Minh is an Associate Professor at the Ho Chi Minh City University of Technology, Vietnam. He received his Ph.D. in Transportation Engineering from the Nagaoka University of Technology, Japan. His research interests include terminal design and operations, and transportation planning and management.

Eric A. Morris is an Assistant Professor of City and Regional Planning at Clemson University. His research focuses on the links between transportation, urbanization, and well-being. He also studies transportation history and transportation policy, politics, economics, and finance.

Linh B. Ngo graduated from the University of Arkansas of Fayetteville with a Ph.D. in Computer Science in 2011. After joining Clemson University as a Post-Doctoral Fellow in 2012, Dr. Ngo became a Deputy Lab Directory for the Big Data Systems Lab of School of Computing at Clemson University in 2014. In 2015, Dr. Ngo was appointed Director of Data Science for the Cyberinfrastructure and Technology Integration Group at Clemson University. Dr. Ngo's research focus is on the analysis and evaluation of distributed systems and big data system infrastructures.

Dr. Ngo's research has been sponsored by the National Science Foundation (NSF), Acxiom Corporation, LexisNexis, and BMW Corporation. Dr. Ngo has been involved in both industry and federal sponsored research projects on system capacity evaluation and planning for computing infrastructure of companies such as Acxiom and BMW.

Beth Plale is a Full Professor of Informatics and Computing at Indiana University, where she directs the Data to Insight center and is Science Director of the Pervasive Technology Institute. Dr. Plale's research interests are in the long-term preservation of scientific and scholarly data, data analytics, tools for metadata and provenance capture, data repositories, and data-driven cyberinfrastructure. Plale is deeply engaged in interdisciplinary research and education. Her postdoctoral studies were at Georgia Institute of Technology, and her Ph.D. in Computer Science was from the State University of New York at Binghamton. Plale is founder and co-director of the HathiTrust Research Center, which provisions analysis to 14 million digitized books from research libraries, and serves on the steering committee of Research Data Alliance/US. She is a Department of Energy Early Career Awardee and past fellow of the university consortium Academic Leadership Program.

Robi Polikar is a Professor of Electrical and Computer Engineering at Rowan University, in Glassboro, NJ. He has received his B.Sc. degree in electronics and communications engineering from Istanbul Technical University, Istanbul, Turkey, in 1993, and his M.Sc. and Ph.D. degrees, both co-majors in electrical engineering and biomedical engineering, from Iowa State University, Ames, IA, in 1995 and 2000, respectively. His current research interests within computational intelligence include ensemble systems, incremental and nonstationary learning, and various applications of pattern recognition in bioinformatics and biomedical engineering. He is a member of IEEE, Tau Beta Pi, and Eta Kappa Nu. His recent and current works are funded primarily through NSF's CAREER and Energy, Power and Adaptive Systems (EPAS) programs. He is also an Associate Editor of *IEEE Transactions on Neural Networks and Learning Systems*.

Mizanur Rahman received MSc in Civil Engineering from Clemson University, Clemson, South Carolina, United States, in 2013. He is currently working toward the PhD degree in transportation systems engineering at Clemson University. Since 2011, he has been a research assistant with Clemson University, focusing on data science and artificial intelligence applications for connected and automated vehicle systems.

Ilya Safro received his Ph.D. in Applied Mathematics and Computer Science from the Weizmann Institute of Science in 2008. After a 3-year postdoctoral and 2-year Argonne scholar positions at the Mathematics and Computer Science Division at Argonne National Laboratory, he joined the School of Computing at Clemson University where he is currently an Assistant Professor. His research is currently funded by NSF, BMW Corporation, and Greenville Healthcare System. Ilya's research interests include multiscale methods, scientific computing, large-scale optimization, machine learning, data mining, and network science.

Chad A. Steed is a Senior Research Staff member with the Oak Ridge National Laboratory (ORNL). He holds a Joint Faculty Appointment with the University of Tennessee's Electrical Engineering and Computer Science Department, and he is an Adjunct Professor with Mississippi

State University's Department of Computer Science and Engineering. Before joining ORNL, he spent 9 years as a scientist with the Naval Research Laboratory. Dr. Steed received his Ph.D. degree in Computer Science from Mississippi State University, where he studied data visualization and computer graphics. His research spans the full life cycle of data science including interactive data visualization, data mining, human—computer interaction, visual perception, databases, and graphical design. His current focus is to design visual analytics systems to enhance human-centered exploration and comprehension of complex, large-scale data.

Md Majbah Uddin is a Ph.D. candidate in the Civil and Environmental Engineering Department at the University of South Carolina. He received an M.S. in civil engineering with specialization in transportation from the University of South Carolina. His research interests include transportation planning, freight assignment, and truck safety.

Yuanchang Xie is an Associate Professor in the Department of Civil and Environmental Engineering at the University of Massachusetts Lowell. He received his Ph.D. in Civil Engineering from Texas A&M University—College Station in 2007. Dr. Xie's main areas of expertise include transportation safety, intelligent transportation systems, traffic control and operations, and transportation data analytics. He has coauthored over 40 peer-reviewed journal papers and numerous conference articles in these areas. His work received two Transportation Research Board (TRB) best paper awards. Dr. Xie has served as a Member of the TRB Transportation Safety Management Committee (ANB10) and Transportation of Hazardous Materials Committee (AT040). He is now serving on the Editorial Boards of Accident Analysis and Prevention and Transportation Research Part C: Emerging Technologies.

Lu Yu is a Postdoctoral Research Fellow in the Holcombe Department of Electrical and Computer Engineering, Clemson University, Clemson, SC. She received her Ph.D. degree in Electrical Engineering from Clemson University, SC, USA. Her research interests include cyber security, data anonymization, digital currency, and Markov models.

Yan Zhou is a transportation systems analyst at Argonne National Laboratory. She also serves as the Operation Manager of US—China Clean Energy Research Center, Clean Vehicle Consortium and Truck Research Utilizing Collaborative Knowledge (TRUCK) program. At Argonne, she has been developing Long-Term Energy and GHG Emission Macroeconomic Accounting Tools for both the United States and China which are widely used by government agencies, research institutes, and consulting companies to project energy demand and analyze greenhouse gas emissions of different transportation sectors and evaluate the impact of adoption of renewable fuel and advanced vehicle technologies in these sectors. She is also an expert in electric drive vehicle technologies market analysis of both China and the United States. She received her master and Ph.D. degrees in Transportation Engineering from Clemson University, SC.