



CALL-FOR-PAPERS

ACM/Springer Mobile Networks & Applications (MONET)

<http://link.springer.com/journal/11036>

SPECIAL ISSUE ON

Smart Societies, Infrastructure, Systems, Technologies, and Applications

Overview:

Smart cities provide the state of the art approaches for urbanisation, having evolved from the developments carried out under the umbrella of the knowledge-based economy, and subsequently under the notion of digital economy and intelligent economy. Smart cities encompass all aspects of modern day life, transportation, healthcare, entertainment, work, businesses, social interactions, and governance. Smart cities exploit physical and digital infrastructure, as well as the intellectual and social capital, for urban and social development. Technically, smart cities are complex systems of systems that rely on converged and ubiquitous infrastructures. The smart city phenomenon is driven by several interdependent trends including a pressing need for environmental sustainability, and peoples' increasing demands for personalization, mobility and higher quality of life.

The notion of smart cities can be extended to smart societies; i.e. digitally-enabled, knowledge-based societies, aware of and working towards social, environmental and economic sustainability. Since knowledge and human and social capital are at the heart of smart city and smart society developments, the role of education should extend beyond the mainstream "education for employment" scope. It should extend to the notion of social and collaborative governance where the society collaborates to train each other in maintaining its knowledge, moral fibre, operations, good practice, resilience, competitiveness, and for bringing innovation and becoming a knowledge-based economy. The key to such efforts would be the creation of an ecosystem of digital infrastructures that are able to work together and enable dynamic real-time interactions between various smart city subsystems.

This special issue is a follow up from SCITA 2017, the first EAI (European Alliance for Innovation) Conference on Smart Societies, Infrastructure, Technologies and Applications, held at King Abdulaziz University (KAU), Jeddah, Saudi Arabia, 27th to 29th November 2017 (<http://scita.org/2017/>; see [1] for the conference proceedings). The aim is to invite articles that present robust and innovative approaches towards smarter societies research and development. We named the conference "scita" which means "the sum of all the political, economic, technological, scientific, military, geographical, and psychological knowledge of the masses and of their representatives", and in accordance with this name, the scope of the submissions is broad. We invite submissions with topics related to five broad themes: smarter society applications (e.g. healthcare, mobility); smart infrastructure (distributed systems, HPC, big data, etc.), social capital development

and eGovernance, innovation and entrepreneurship, and crosscutting themes.

This special issue call is being issued in an important time when so much is happening in smart cities and societesspace. Many new smart districts and cities are being built around the world while many exiting cities are evolving or transforming into smart cities. These initiatives include, among many others, the announcement by Saudi Arabia of its plans to build a smart city called NEOM supported by \$500 billion from the Saudi government. This special issue will contribute to and shape these smart developments in Saudi Arabia and globally.

Topics

Topics of interest for this special issue include, but are not limited to, the following:

<ul style="list-style-type: none">- smart transportation systems- smart and personalized healthcare systems- smart buildings, smart homes and smart energy grids- Computational and artificial Intelligence applications- Big data applications- mobile applications- smart analytics- eGovernance- social networks and media- modelling and analysis of smart society technologies, applications and systems- High Performance Computing infrastructure and applications- Artificial Intelligence methodologies, tools, software for smart societies infrastructure- Internet and Web infrastructure- IoT based approaches- Big data technologies- Autonomous vehicles- Autonomic computing / systems- Blockchain technologies for smart societies	<ul style="list-style-type: none">- information management- security and privacy- innovation and entrepreneurship in smart society settings- Software defined approaches for system design including networking and interactions- Social capital development- Lifelong learning- eLearning and distance learning for smart societies- Collaborative and social learning- Social intervention methodologies- Smart citizens- Smart living and living spaces- Smart environment- Smart economy- Smart Grid- Industry 4.0- cloud, fog and edge computing- studies focused on communication networks- operations research for smart societies
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Important Dates

- **Manuscript submission deadline: 30 April 2019**
- Notification of decision: 15 June 2019
- Submission of final revised paper: 15 July 2019
- Publication of special issue paper (tentative): 15 August 2019 (online)

Accepted papers would be online approximately 30 days after acceptance. The special issue will be

published as soon as possible afterwards.

Submission Procedure

Authors should follow the MONET Journal manuscript format described at the journal site. Manuscripts should be submitted on-line through <http://www.editorialmanager.com/mone/>. Authors must select "SI: Smart Societies, Infrastructure, Systems, Technologies and Applications" during the manuscript submission process.

All inquiries related to the special issue should be directed to the lead Guest Editors Rashid Mehmood at the following email address RMehmood@kau.edu.sa. A copy of the manuscript should also be emailed to the RMehmood@kau.edu.sa.

Guest Editors:

Rashid Mehmood (Lead Guest Editor)

High Performance Computing Center, King Abdulaziz University, Jeddah, Saudi Arabia

Rashid Mehmood is currently a Research Professor of big data systems and the Director of research, training, and consultancy with the High Performance Computing Center, King Abdulaziz University, Saudi Arabia. He has gained qualifications and academic work experience from universities in U.K., including Cambridge, Birmingham, and Oxford. He has over 20 years of research experience in computational modeling and simulation systems coupled with his expertise in high-performance computing. His broad research aim is to develop multi-disciplinary science and technology to enable a better quality of life and Smart Economy with a focus on real-time intelligence and dynamic system management. He has published over 150 research papers, including six edited books. He is a Founding Member of the Future Cities and Community Resilience Network. He has organized and chaired international conferences and workshops in his areas of expertise, including EuropeComm 2009 and Nets4Cars 2010–2013. He has led and contributed to academia-industry collaborative projects funded by EPSRC, EU, and U.K. regional funds, and Technology Strategy Board U.K. with the value over £50 million. He is a member of the ACM and OSA, and the former Vice-Chairman of the IET Wales SW Network.

Aziz Sheikh OBE

The Usher Institute of Population Health Sciences and Informatics, The University of Edinburgh, UK

Aziz Sheikh is Professor of Primary Care Research & Development and Director of the Usher Institute of Population Health Sciences at The University of Edinburgh. He is Honorary Consultant in Paediatric Allergy at the Royal Hospital for Sick Children, NHS Lothian, Co-Director of the NHS Digital Academy and Co-Director of Harvard Medical School's Safety, Quality, Informatics Leadership (SQIL) Program.

Aziz has substantive academic and health policy interests in leveraging the potential of health information technology and data science to transform the delivery of health care and improve population health, which have led him to work with numerous governments, the World Health Organization (WHO) and the World Bank. He has advised the UK, Scottish, US, Saudi and Kuwaiti Government's on their health IT strategies.

He is an editorial board member of PLOS Medicine, Medical Care, Health Informatics Journal and BMC Medicine, and is Editor-in-Chief of Nature Partnership Journal: Primary Care Respiratory Medicine. He was Guest Editor of PLOS Medicine's theme issue on Machine Learning in Healthcare and Biomedicine (2018), is Guest Editor of BMC Medicine's forthcoming theme issue on 'Beyond Big Data to new Biomedical and Health Data Science: moving to next century precision health', and serves on The Lancet's Commission on the Future of the NHS. He chaired the World Innovation Summit for Health (WISH) Forum on Data Science and Artificial Intelligence in Healthcare. He served on the UK's Research Excellence Framework (REF) in 2014 and will again serve on REF 2021.

Aziz has held research grants in excess of \$90m, has over 1,000 peer-reviewed publications, has an H-index of >100 and is identified as a Highly Cited Researcher (2018). His co-edited books include Health Care Errors and Patient Safety (Wiley, 2009), Patient Safety and Healthcare Improvement at a Glance (Wiley, 2014), and Key Advances in Clinical Informatics (Elsevier, 2018).

Aziz has been honoured with fellowships from 8 learned societies. He is a founding Fellow of the Faculty of Clinical Informatics and a Fellow of the American College of Medical Informatics. Aziz was made an Officer of the Order of the British Empire for 'Services to Medicine and Health Care' by Her Majesty Queen Elizabeth II in 2014. He was in 2017 awarded the American Public Health Association's Donabedian Award and The University of Edinburgh's Principal's Medal for Exceptional Services.

Charlie Catlett

Argonne National Laboratory and the University of Chicago, USA

Charlie Catlett is a Senior Computer Scientist at the U.S. Department of Energy's Argonne National Laboratory and a Senior Fellow at the University of Chicago's Mansueto Institute for Urban Innovation and Harris School of Public Policy. He has worked in Internet and supercomputing technologies since 1985. He leads the NSF-funded Array of Things project, a network of hundreds of programmable intelligent sensors in Chicago, and a DOE-funded project developing coupled urban modeling capabilities for Exascale systems. Charlie is a Computer Engineering graduate of the University of Illinois at Urbana-Champaign.

Imrich Chlamtac

European Alliance for Innovation, Slovakia

Dr. Chlamtac is the founder and President of CREATE-NET, at present the top-ranked independent ICT Research Center in Italy.

Prior to CREATE-NET, Dr. Chlamtac served as Associate Provost for Research and Distinguished Chair in Telecommunications at the University of Texas in Dallas, and Professor at Boston University, University of Massachusetts and Technion.

Dr. Chlamtac holds multiple academic and honorary appointments including the “Bruno Kessler Honorary Professor” from University of Trento, the “Sackler Professorship” at Tel Aviv University, Honorary Professorship at the Beijing University of Posts and Telecommunications, and the Budapest University of Technology and Economics. He is currently honorary professor at the University of Trento.

Dr. Chlamtac scientific recognitions include IEEE and ACM Fellowship, the ACM Award for Outstanding Contributions to Research on Mobility, the IEEE Award for Outstanding Technical Contributions to Wireless Personal Communications, New Talents in Simulation of SCS, Fulbright Scholarship, IEEE Distinguished Lecturer. He was listed in ISI Highly Cited.Com among the 250 most cited Computer Science researchers worldwide. Along with publishing over four hundred refereed articles, and multiple books, Dr. Chlamtac co-authored the first textbook on “Local Networks” (Lexington Books 1980), and IEEE Network Editor's choice and Amazon.com engineering books best-seller "Wireless and Mobile Network Architectures" (John Wiley & Sons 2000).

As part of his contribution to the research community, Dr. Chlamtac founded the ACM SigMobile, serves as Editor in Chief of the ACM/Springer WINET and MONET journals, acts as the founding steering committee chair of ACM Mobicom, and more recently, lead the launch of the first web based professional society (<http://www.icst.org>). As the original architect and current President of EAI (<http://www.eai.eu/>), Dr. Chlamtac pioneered EAI as global initiative for promoting growth of ICT based European economy and digital society.

Dr. Chlamtac is a co-founder and past President of CONSIP Ltd, the first network emulator company, and of BCN Ltd, currently KFKI Ltd (<http://www.kfkizrt.hu/>) one of the largest system integrator companies in Central Europe.

References

1. Mehmood, R., Bhaduri, B., Katib, I., Chlamtac, I. eds: Smart Societies, Infrastructure, Technologies and Applications, Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering (LNICST), Volume 224. Springer International Publishing, Cham (2018). <https://doi.org/10.1007/978-3-319-94180-6>.



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