



Call for Papers AI and Machine Learning for Smart Cities

Smart cities, with rapid increase in urban growth, is a concerning problem, even for developed countries. It is growing as one of the complex systems around the world with the increase in demand and supply based on resources and services. In this modern era, intelligent devices are very much needed in the building of critical infrastructure of a smart city. The increase in population has increased challenges in administration and management of smart cities. These types of challenges can be tamed by the implementation of technical advancements into the inhabitants. However, the need of smart city and the developments around it should provide benefits not only to the living environment but also consider the human centered services. Moreover, maintaining a healthier environment needs the enhancement of intelligent information system with enabled IoT technologies. In building a smart city, the process should be an interactive kind, so an IoT based platform is necessary.

With the help of a network of smart things such as sensors, cameras and actuators the collection of data is very much possible. However, data warehousing, data analysis and visualization of the collected data is also a part of the process. Here, the use of Artificial Intelligence-based algorithms combined with machine learning can be a problem-solving measure for creating a sustainable environment. Machine learning with the help of the long-term data analysis will be very helpful in improving the overall performance of the smart cities' services. Artificial intelligence with machine learning, combined with the assistance of IoT can address any type of issue related to the areas of healthcare, energy, transportation, education and many others. Similarly, intelligent techniques involve various regression models and neural network-based decision approach in determining the pattern of multilayered data. Moreover, data infrastructure plays a vital role in the decision making of smart cities. The enormous amount of sensory data retrieved from IoT devices can be computed using intelligent learning methodologies. AI and machine learning has the ability to solving solve large scale, complex problems in smart cities through mathematical computation.

AI and machine Learning can change the way smart cities operate in various fields. However, the implementing and integrating of software and hardware platforms, smart framework and algorithm, theoretical planning and mathematical computing model of ICT infrastructure is very much essential for an AI and ML based smart city. This special issue motivates and inspires academics and researchers to present their work enabling AI and machine learning based measures in the development of a smart city.

Topics of interests include (but are not limited to) the following categories:

- Enabling ICT based Technologies and Platforms for Smart Cities
- Integration of Artificial Intelligence, IoT with Cloud, Data analysis, Privacy and Security
- Need of Machine Learning for Transportation, Health, and Safety in Smart Cities
- Sensors & Intelligent Electronic Devices for Sustainable Smart Cities
- Machine learning algorithms and computing methods for Developing Urban Governance Systems
- The Future of Intelligent Management Control Platforms in Smart Environment
- ML based architecture and modeling for Smart Cities
- Opportunities and Risks in implementing Intelligent IoT sensing in Smart Cities
- Semantic Data Modeling for Smart City based Complex Environment
- Importance of AI powered IoT enabled technologies
- Rethinking Productivity through the use of intelligent learning and technology
- Machine learning for building and supporting Intelligent Communities
- Need and Purpose of implementing machine learning algorithm in urban environment
- AI and Machine learning as disruptive technology in the development of smart cities
- The Need of Mathematical Models, Algorithms and Data Structures in the development of smart cities and its Applications
- Computational Intelligence for Sustainable Smart Cities
- A survey of intelligent data fusion in smart city applications

LIST OF IMPORTANT DATES:

Manuscript Submission Deadline Date:	26th July, 2020
Authors Notification Date:	1st October, 2020
Revised Papers Due Date:	30th December, 2020
Final notification Date:	28th March, 2021

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Dr.M.K.Priyan is currently working as a Postdoctoral Research Fellow in Middlesex University, London, UK. He had completed his Ph.D. in the Vellore Institute of Technology University. He received his Bachelor of Engineering and Master of Engineering degree from Anna University and Vellore Institute of Technology University, respectively. His current research interests include Big Data Analytics, Internet of Things, Internet of Everything and Internet of Vehicles in Healthcare. He is the author/co-author of papers in international journals and conferences including SCI indexed papers. He has published 38 papers in which 2 in IEEE Access, 1 in IEEE Transactions, 1 in ACM Transactions, 6 in Elsevier Publication and 16 in Springer Publications. He is a reviewer for Elsevier, IEEE Access, IEEE Transactions, and Springer journal. He is a lifetime member in International Society for Infectious Disease, Computer Society of India and member in Vellore Institute of technology Alumni Association. He has been given the Best Researcher Award for the year 2017 and 2018 at Vellore Institute of Technology University.

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Ching-Hsien Hsu is the Editor-in-Chief of International Journal of Grid and High Performance Computing and International Journal of Big Data Intelligence. He is a professor and the chairman in the CSIE department at Chung Hua University, Taiwan; He was distinguished chair professor at Tianjin University of Technology, China, during 2012-2016. His research includes high performance computing, cloud computing, parallel and distributed systems, big data analytics, ubiquitous/pervasive computing and intelligence. He has published 100 papers in top journals such as IEEE TPDS, IEEE TSC, IEEE TCC, IEEE TETC, IEEE System, IEEE Network, ACM TOMM and book chapters in these areas. Dr. Hsu is serving as editorial board for a number of prestigious journals, including IEEE TSC, IEEE TCC. He has been acting as an author/co-author or an editor/co-editor of 10 books from Elsevier, Springer, IGI Global, World Scientific and McGraw-Hill. Dr. Hsu was awarded nine times distinguished award for excellence in research from Chung Hua University. He is vice chair of IEEE TCCLD, executive committee of IEEE TCSC, Taiwan Association of Cloud Computing and an IEEE senior member.

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Dr.Gautam Sirvastava is presently working as an associate professor in the department of mathematics & computer science at Brandon University, Canada. His Master degree was completed in the same University of Victoria, Victoria, British Columbia, Canada in the year 2006 with his under graduation from Briar Cliff University, Sioux City, Iowa, USA. He completed his Ph.D. in Computer Science from the University of Victoria, Victoria, British Columbia, Canada in 2007. Having teaching experience of around 13 years, he has published over 80 research papers and articles. He is an associate editor in IEEE Access and a member of the Technical Program Committee in the IEEE Vehicular Technology Conference and IEEE Globecom. He is also the Guest Editor for Special issues like Data mining in Journal of Non-Linear and Convex Analysis (2018-2019) & Social Data and Artificial Intelligence in Symmetry Journal 2019-2020. Currently, he is a reviewer in several journals. His research interests include blockchain technology, cryptography, big data, data mining, social networks, security and privacy, anonymity, and graphs.

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