



Special Issue on Content-driven and Cache-aware networking in Smart Cities

Call for Papers

As a promising solution for the development issues appearing in many countries, smart cities have received much attention by the governments and researchers. Upon all the living aspects, for example, transportation and network communications are able to fuel high-quality life for the citizens, the city becomes truly smart. Nowadays, a large amount of digital media contents are generated by wide aspects of life in a city, producing large volumes of communication traffic. Such a situation brings several problems. Firstly, wireless backhaul congestion happens frequently if communication traffic is emerging. Secondly, energy consumption is relatively high since the continuous requests by human and monitoring by sensors. Lastly, the Quality of Experience (QoE) of users cannot be highly satisfied due to the unstable communication transmission quality. As a result, a smart city trends include a desire for more intelligent policy-making and operational control to help drive smart city programs to the next stage.

To solve the above challenges, reasonable content caching is a promising solution. Benefit from the paradigm of Content-Centric Networking (ICN) and big data analysis, contents are effectively distributed to each caching module. Meanwhile, edge computing can also provide an inspiring technology for the content caching in smart cities, which can make traffic congestion be alleviated. Moreover, Artificial Intelligence (AI) enables the caching machine and device to choose the content that will be requested frequently in the near future, and select the right time to sleep, thus to reduce their energy consumption. Besides, to make the content caching network in smart cities more secure, the blockchain is one of the best ways to be leveraged.

The aim of this special issue is to provide a forum for recent research results on the topics relevant to the current challenges of cache policies and content-driven schemes in smart cities. We solicit high-quality original research works on various aspects of content-driven and cache-aware networking in smart cities. The topics relevant to this special issue include but are not limited to:

- *Content caching schemes in smart cities*
- *Artificial intelligence in smart cities*
- *Social network analysis in smart cities*
- *Resource allocation in smart cities*
- *Cloud, fog and edge computing in smart cities*
- *Big data mining in smart cities*
- *Routing in smart cities*
- *Security and privacy protection in smart cities*
- *Blockchain in communication security*
- *Swarm Intelligence in smart cities*
- *Cache aware routing*

The length of the articles should not exceed 4 pages in total. The guest editors maintain the right to reject papers they deem to be out of the scope of this special issue. Only originally unpublished contributions and invited articles will be considered for this special issue. The papers should be formatted according to the ITL guidelines (<https://pericles.periclesprod.literatumonline.com/page/journal/24761508/homepage/forauthors.html>). Authors should submit a PDF version of their complete manuscript via ITL submission portal at (<https://mc.manuscriptcentral.com/itl>) according to the timetable below. For more information on formatting (Latex and word), please refer to <https://onlinelibrary.wiley.com/journal/24761508>.

Important Dates

Submission deadline: January 31, 2020
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