Across the globe, rapid growth and urbanization are placing increasing pressure on cities and governances to make the most efficient use of their resources. Some estimates predict that 70 percent of the world’s population will live in a city or suburb by 2050. One way to address this challenge is to integrate digital technology into a city’s resources, assets, and infrastructure.

A smart city attempts to use urban informatics and technology to improve or maximize the efficiency of its services and resources. Sensor devices and monitoring systems can enable urban officials and management to collect, process, and analyze relevant data in order to tackle inefficiencies. With rapid advances in big data storage technologies and decreasing hardware costs, our ability to collect and store this data is unprecedented. Nevertheless, a large gap still remains between our ability to generate and store large collections of complex, time-dependent smart city data and our ability to derive useful information and knowledge from it.

For this special issue, we are soliciting papers that describe interactive visualization, visual analytics, and personal, public, and commercial visual computing applications that attempt to meet the data-centered challenges posed by smart cities. More specifically, we are looking for visualization and visual analytic contributions on the following topics:

- Urban knowledge economy
- Smart city emergency response
- Smart city planning
- Smart architecture or buildings
- Data in digital cities
- Sensible city networks or infrastructure
- Case studies in smart cities
- Indoor, urban, and rural communications
- Smart and assisted housing
- Pervasive urban applications
- Crowdsourcing applications
- Smart transport networks or transportation
- Citizen motion analytics or urban mobility
- Smart energy
- Smart health informatics
- Smart devices
- Smart city finance
- Urban knowledge economy
- Smart city emergency response
- Smart city planning
- Smart architecture or buildings

Guest Editors

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Submission Guidelines

Nondepartment articles submitted to IEEE CG&A should not exceed 8,000 words, including the main text, abstract, keywords, bibliography, biographies, and table text, where a page is approximately 800 words. Articles should include no more than 10 figures or images. Each 1/4 page figure, image, and table counts for approx. 200 words. Note that all tables, images, and illustrations must be appropriately scaled and legible; larger elements should be accounted for accordingly with respect to word count. Please limit the number of references to the most relevant and ensure to delineate your work from relevant past articles in CG&A. Visit the CG&A style and length guidelines at www.computer.org/web/peer-review/magazines. We also strongly encourage you to submit multimedia (videos, podcasts, and so on) to enhance your article.

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