Smartphone-Based Navigation System for Outdoor Positioning
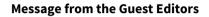
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Message from the Guest Editors

Smartphones integrated with a large array of sensors enhance and augment the quality of our lives. They are used in a wide variety of situations, ranging from recreational and educational purposes to facilitating communication. For the visually impaired and other individuals who face challenges in navigating roads, smartphone-based navigation and positioning systems are particularly important. A major requirement in outdoor blind navigation is accurate positioning and navigation guidance; typical errors in GPS positioning and oral instructions relying on visual context, cannot be tolerated. A further challenge for this type of service is their availability, especially in areas with weak signal reception. Therefore, novel multi-modal sensor-fusion solutions, frameworks, and algorithms should be designed to meet the requirements of positioning accuracy. Additional aids enhancing navigation safety are particularly important, contributing to their more sophisticated application and increased user acceptance.

This Special Issue, therefore, welcomes original application-focused research and investigations on smartphone-based navigation and positioning.

Special Issue

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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