Visible Light Communications (VLC) Networks

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Message from the Guest Editors

As demand for high-speed, reliable communication networks continues to increase, Visible Light Communications (VLC) technology is emerging as a revolutionary solution, leveraging the ubiquitous infrastructure of LED lighting to transmit data. VLC technology uses the visible light spectrum, an unregulated resource, to offer high bandwidth and secure communication channels. Therefore, it presents a promising alternative to traditional RF-based systems, particularly in environments where RF interference is a problem or where the RF spectrum is congested. VLC's unique properties make it suitable for a wide range of applications. Consequently, this Special Issue aims to explore the latest advances, challenges, and applications of VLC networks. Potential topics covered by this Special Issue will include, but are not limited to, the following fields:

1. Innovative modulation and coding techniques applied to VLC;
2. Application, system design and optimization of VLC;
3. Hybrid systems that combine VLC with RF, Wi-Fi and Li-Fi;
4. Visible light channel modeling;
5. VLC for 5G and beyond;
6. Machine learning and data analytics techniques for VLC networks.

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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