Through-the-Wall Radar Imaging Based on Deep Learning

Guest Editor:

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Deadline for manuscript submissions:
closed (28 July 2022)

Message from the Guest Editor

Over the past few years, through-the-wall radar imaging (TWRI) systems have attracted notable interest for the identification of targets in indoor environments. TWRI processing and understanding have taken advantage of artificial intelligence breakthroughs, particularly deep learning. The aim of this Special Issue is to increase these exchanges and enable experts from other areas to understand the specifies of TWRI problems, and to also provide a platform for researchers to handle significant challenges and present their innovative research results when applying deep learning to TWRI. Topics for this Special Issue on deep learning for TWRI processing include, but are not limited to, the following:
Forward and inverse electromagnetic scattering models;
Clutter rejection and multipath exploitation data processing techniques;
Compressive sensing for through-wall radar imaging;
Focusing algorithms for TWRI radars;
Indoor object detection and classification;
Indoor monitoring;
Building layout imaging and feature extraction;
Supervised, semisupervised, and unsupervised learning.

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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