



Deep Learning for Radar and Sonar Image Processing

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Deadline for manuscript
submissions:

closed (1 December 2021)

Message from the Guest Editors

Dear Colleagues,

Over the past few years, radar and sonar image processing and understanding, for both civilian and defense applications, have taken advantage of the breakthrough of artificial intelligence, especially deep learning. Unfortunately, specialists from the radar and sonar fields do not interact much with each other. The aim of this Special Issue is to increase these exchanges and allow experts from other areas to understand the specifics of radar and sonar problems. Indeed, radar and sonar images have some particularities, compared to common optical images. Thus, processing these data requires certain precautions, and specific developments must be made to address applications such as image segmentation or object detection. However, one of the main problems, especially in defense applications, is the lack of data. To overcome this problem, several solutions can be considered such as image synthesis using generative adversarial nets (GANs) to create or increase the size of the training sets, domain adaptation or transfer learning.





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