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# **Object Detection and Pattern Recognition in Image Processing**

Guest Editor:

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#### Message from the Guest Editor

Dear Colleagues,

Object detection and pattern recognition in image processing has become an increasingly important but challenging research topic in various applications, such as environment monitoring, traffic management, and urban planning.

However, traditional methods are limited due to the complex model design, sensitivity to scale change of objects, low performance for fine-grained understanding tasks, strong dependency on manual labels, and so on.

Thus, this Special Issue aims to explore high-performance object detection and pattern recognition approaches. Areas include (but are not limited to) novel deep learning methods, high-level object understanding tasks, and pattern recognition with machine learning. Additionally, determining how to achieve end-to-end lightweight object detection with strong robustness against noise interference and how to improve pattern recognition performance with a few labels are also topics of interest.

Prof. Dr. Xi Yang *Guest Editor* 









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## **Editor-in-Chief**

#### Message from the Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo** Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy 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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