



Lifelong Machine Learning-Based Efficient Robotic Object Perception

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Message from the Guest Editors

Lifelong machine learning aims to utilize knowledge from past tasks to efficiently and effectively learn new tasks over a lifetime, which is more suitable for the robotic learning scenarios, i.e., perceive the objects or environments in a never-ending manner. Then, the question emerges: “how to lifelong perceive objects with a robot?” To answer this question, we invite scientists, researchers, and robotic specialists together with academics to share their insights of the lifelong robot perception learning. What will the robot learn in a lifelong manner? What kind of knowledge or experience is most suitable for robot perception? How does the robot learn when encountering a new task? Meanwhile, humans can learn from just one or a handful of examples (i.e., few- or zero-shot learning) with vision–audio–touch senses; can robot achieve very long-term learning in this manner as humans do? All of these are important discussions at the moment and this Special Issue will help all those interested in the topic to promote their vision and ideas.





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