

Special Issue

Novel Technologies in Navigation and Control

Message from the Guest Editors

In recent years, unmanned aerial vehicles (UAVs) and unmanned ground vehicles (UGVs) have gained significant momentum among researchers and industries. Applications such as surveillance, infrastructure inspection, delivery, or search-and-rescue greatly benefit from the time and cost efficiency of the robotic platforms. In this context, the aim of the present proposal is to address the problem of autonomous and safe robot navigation and control, which are necessary functions to perform each of the tasks described above. As the extensive literature testifies, the exploration of solutions to realize autonomous navigation and control is still an open and evolving challenge, particularly in the light of contemporary fast-paced technological development. Indeed, the cost-effectiveness of the onboard sensors and the increase in the available computational power make it possible to realize efficient strategies for accurate localization, target estimation, precise path following, and decentralized control.

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