Special Issue

SfM/SLAM and 3D Reconstruction: Trends, Prospects and Applications in Space

Message from the Guest Editors

Recovering 3D structures and 6D poses of objects from a single image or sequence of images is an active topic attracting researchers from fields such as 3D computer vision, object pose estimation, and artificial intelligence (AI), etc. The main aim of this Special Issue is to seek original contributions that address the above challenges or highlight emerging applications in 3D reconstruction. The topics of interest include, but are not limited to:

- SfM from sparse views;
- Camera self-calibration from a single/two view(s);
- Indoor or outdoor SLAM;
- Passive/active 3D reconstruction;
- Implicit/explicit representation-based 3D reconstruction (e.g. Nerf, GS, etc.)
- 3D reconstruction from difficult surfaces;
- 2D–2D, 2D–3D, or 3D–3D feature matching and tracking;
- 3D point-cloud registration, segmentation;
- 6D object pose estimation or tracking;
- Uncertainty estimation;
- Novel 3D reconstruction and pose estimation in space.

Guest Editors

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Deadline for manuscript submissions

closed (15 June 2025)

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Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

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