



## UAV Remote Sensing and 3D Reconstruction

Guest Editors:

**Prof. Dr. Shibiao Xu**

School of Artificial Intelligence,  
Beijing University of Posts and  
Telecommunications, Beijing,  
China

**Dr. Yun Liu**

College of Artificial Intelligence,  
Southwest University, Chongqing  
400715, China

**Dr. Honggang Chen**

College of Electronics and  
Information Engineering, Sichuan  
University, Chengdu 610065,  
China

Deadline for manuscript  
submissions:

**30 August 2024**

### Message from the Guest Editors

In recent years, computer vision has seen transformative breakthroughs with Neural Radiance Fields (Nerf), revolutionizing how we perceive and reconstruct three-dimensional scenes. This Special Issue delves into Nerf-based scene reconstruction tailored for Unmanned Aerial Vehicles (UAVs). As UAVs proliferate in domains like cinematography and surveillance, reconstructing detailed and accurate 3D models of their environments becomes crucial.

We explore Nerf principles and their adaptation to UAV-generated data, merging vision and robotics for real-time, high-fidelity scene reconstruction from aerial perspectives. Nerf in UAV applications enhances spatial understanding and holds promise for mapping, navigation, and disaster response.

This Special Issue aims to unite researchers, practitioners, and enthusiasts to share insights, methodologies, and advancements in Nerf-based UAV 3D reconstruction. By fostering collaboration, we aim to push boundaries and innovate applications harnessing Nerf and UAV synergy.





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo**

Dipartimento di Fisica,  
Politecnico di Milano, Piazza L.  
da Vinci 32, 20133 Milano, Italy

## Message from the Editor-in-Chief

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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q2 (*Engineering, Multidisciplinary*) / CiteScore - Q1 (*General Engineering*)

## Contact Us

---

Applied Sciences Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/applsci](http://mdpi.com/journal/applsci)  
[applsci@mdpi.com](mailto:applsci@mdpi.com)  
[X@Applsci](https://twitter.com/Applsci)