



Call for Papers
IEEE Aerospace and Electronic Systems Magazine
Special Issue on
Deep learning assisted Computer Vision and Visual Analytics in Autonomous Unmanned Aerial Vehicles

Dear Aerospace-RF-Sensing Community,

The IEEE Aerospace and Electronic Systems (AESS) will publish a **special issue** of its magazine focusing on the developing theme of **Deep learning assisted Computer Vision and Visual Analytics in Autonomous Unmanned Aerial Vehicles**.

Autonomous Unmanned Aerial Vehicles (UAVs) are gaining popularity as they can perform complex tasks without human intervention. However, their ability to process large amounts of visual data is limited by their computing power and storage capacity. Deep learning and visual analytics can enhance UAVs' data processing capabilities, enabling them to perform various tasks such as surveillance, disaster response, agriculture, and transportation. Progress in this field has been driven by advancements in deep learning algorithms, such as CNNs and RNNs. However, challenges remain, including limited computing power and storage capacity, and the need for accurate visual data in dynamic environments. This special issue aims to showcase the latest advancements in this emerging field, featuring original research articles, reviews, and case studies.

The topic of interest includes the following:

- Deep learning-based object detection and tracking for UAVs
- Real-time semantic segmentation for UAV imagery
- Visual saliency detection for UAVs using deep learning
- Multi-modal data fusion for UAV-based visual analytics
- UAV-based anomaly detection using deep learning
- Automated event detection and classification using UAV data
- UAV-based precision agriculture using deep learning
- Deep learning-based environmental monitoring using UAVs
- UAV-based object recognition using generative adversarial networks
- Deep reinforcement learning for UAV-based visual navigation
- Human activity recognition using UAV data and deep learning
- UAV-based road traffic analysis using deep learning techniques

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Submission Deadlines:

Manuscript submission deadline: August 31, 2023

First review completed: October 27, 2023

Revised manuscript due: December 19, 2023

Second review completed: February 05, 2024

Final manuscript due: March 30, 2024

We strongly encourage you to submit a paper of your recent work. Please see the following link to author instructions: http://sysaes.msubmit.net/cgi-bin/main.plex?form_type=do_cat&file_nm=info.htm