

## 26th International Conference on Computer and Information Technology: Submission (331) has been created.

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Fri, Sep 8, 2023 at 2:41 AM

Hello,

The following submission has been created.

Track Name: ICCITconf2023

Paper ID: 331

Paper Title: Contrail Analysis through Advanced Neural Network Architectures: Image Segmentation and

Classification

## Abstract:

The aviation industry's immense expansion is having an impact on global warming and has resulted in some significant environmental issues. When an airplane passes directly over them, tiny crisscross patterns, often known as contrails, may be visible. They are to blame for this effect. Contrails are really just airborne particles that have been compressed with water. They are uncommon since ice can only form under particular climatic circumstances, such as extremely cold, hot, humid, and saturating air. Even worse, because of the cooler climate at night, it is more dangerous because it has more time to live. They gather heat from the sun and store it, then release it into the atmosphere. Some experts have also warned the public that the radiation these contrails produce may be more damaging to the atmosphere than previously predicted. For this reason, scientists are looking for methods to reduce these contrails by comprehending their behaviors and patterns. Now, the proposed study segments and classifies images of contrails acquired from satellite data. In this study, complex neural network architectures, including U-Net, DeepLab, Attention Mechanism, and Restnet50 with CNN, are used to segment and binary classify those photos. These architectural frameworks will aid this research in effectively classifying and segmenting those contrails from the satellite images so that further research can comprehend and observe their patterns and behaviors.

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Primary Subject Area: Artificial Intelligence

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Submission Files: Contrail Analysis through Advanced Neural Network Architectures Image Segmentation and

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Submission Questions Response: Not Entered

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