

**Paper Title:** Neural-Based Hierarchical Approach for Detailed Dominant Forest Species Classification by Multispectral Satellite Imagery

**Paper Link:** <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=9311828>

## 1. Summary:

The paper introduces a neural-based hierarchical approach for detailed dominant forest species classification using multispectral satellite imagery.

### 1.1 Motivation:

This paper delves into the weaknesses observed in text-to-image generation, particularly concerning demographic stereotypes.

### 1.2 Contribution:

The study identifies biases existing in AI models dedicated to forest species classification. Notably, it asserts that guardrails are insufficient in mitigating these biases effectively.

### 1.3 Methodology:

The approach involves a hierarchical set of binary classification tasks applied to multispectral satellite imagery, utilizing various neural network architectures.

### 1.4 Conclusion:

The experimental results show no significant variation, indicating the effectiveness of the proposed hierarchical approach.

## 2. Limitations:

### 2.1 First Limitation:

The study acknowledges a constraint related to the limited number of tools available, suggesting potential issues with other tools.

### 2.2 Second Limitation:

Another limitation is recognized, perhaps associated with the available tools. The implication is that there may be alternative tools with fewer issues.

## 3. Synthesis:

The paper highlights the widespread use of such tools by many users and the subsequent development of additional tools by numerous developers. The identified issues could have far-reaching impacts on society, potentially influencing decision-making and introducing biases, especially in the education of children.