### Report

on

# AICTE Training and Learning (ATAL) Academy Recent Trends and Applications of GIS & Remote Sensing using AI Organized by

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(13-09-2021 to 17-09-2021)

The AICTE-ATAL Academy has recognized the increasing significance of GIS and Remote Sensing in various fields, including environmental monitoring, urban planning, agriculture, disaster management, and more. This report outlines the recent developments in the academy's training programs focusing on the fusion of GIS, Remote Sensing, and AI.

#### Recent Trends discussed in Workshop:

#### 1. Integration of AI in GIS and Remote Sensing

The academy has been actively incorporating artificial intelligence techniques into GIS and Remote Sensing applications. This integration enhances the capabilities of traditional systems, allowing for more efficient data analysis, pattern recognition, and decision-making processes.

#### 2. Cloud-based GIS Solutions

Recognizing the importance of accessibility and scalability, the academy has introduced training modules on cloud-based GIS solutions. This enables participants to work with GIS data and applications in a more collaborative and flexible environment.

#### 3. Automation and Machine Learning in Remote Sensing

Recent training programs have focused on the automation of processes in Remote Sensing through machine learning algorithms. Participants are exposed to the latest advancements in image analysis, feature extraction, and classification using AI-driven techniques.

#### **Applications**

#### 1. Environmental Monitoring

The academy has emphasized the role of GIS and Remote Sensing in environmental monitoring. Applications include tracking deforestation, monitoring air and water quality, and analyzing the impact of climate change.

#### 2. Precision Agriculture

Training programs have explored the use of GIS and Remote Sensing in precision agriculture, enabling farmers to make data-driven decisions regarding crop health, soil quality, and resource optimization.

#### 3. Disaster Management

The integration of AI with GIS and Remote Sensing has proven valuable in disaster management. Real-time data analysis facilitates rapid response and decision-making during natural disasters.

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#### Conclusion

The AICTE-ATAL Academy remains committed to staying abreast of the latest trends and applications in GIS, Remote Sensing, and AI. By incorporating these advancements into its training programs, the academy ensures that participants are well-equipped to tackle the challenges of an evolving technological landscape.

This report serves as a snapshot of the recent developments at the academy, and further updates may be needed to capture ongoing progress in this dynamic field.

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