



TEB1113/TFB2023:

Algorithm and Data Structure

September 2024

FINAL REPORT :

Forest Monitoring Drone Simulation

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DEVICE SPECIFICATIONS

RAM : 16 GB DDR4

Processor : 12th Gen Intel(R) Core(TM) i5-12500H 2.50GHz

GPU :

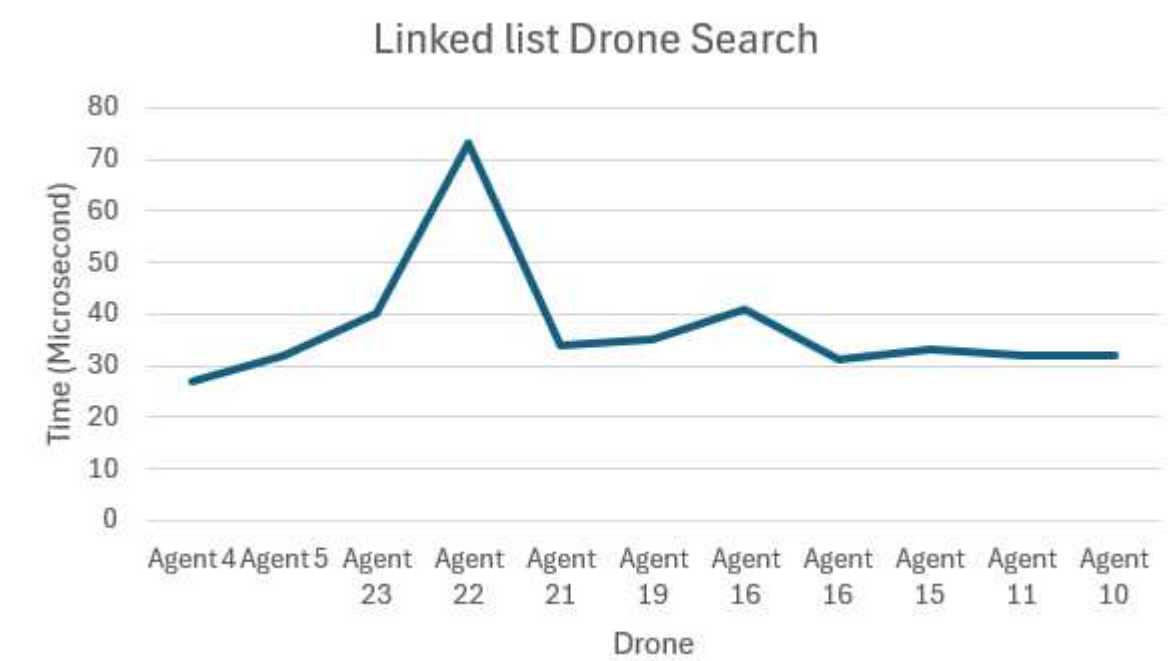
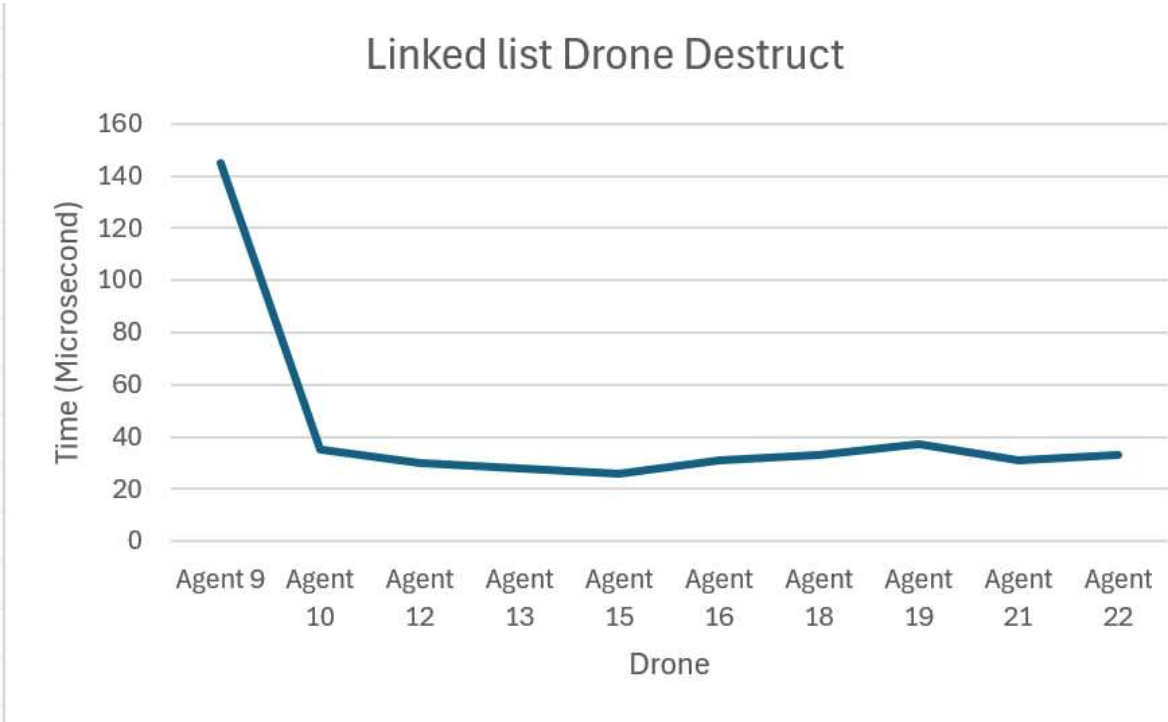
Operating System : Windows 11

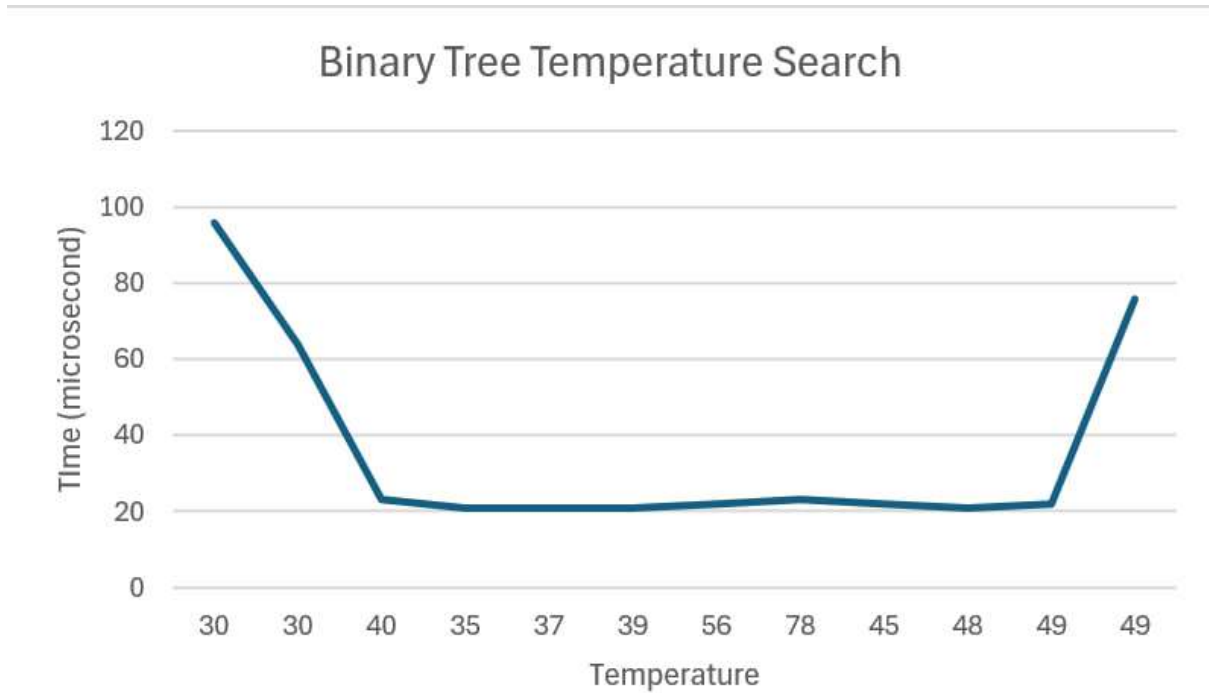
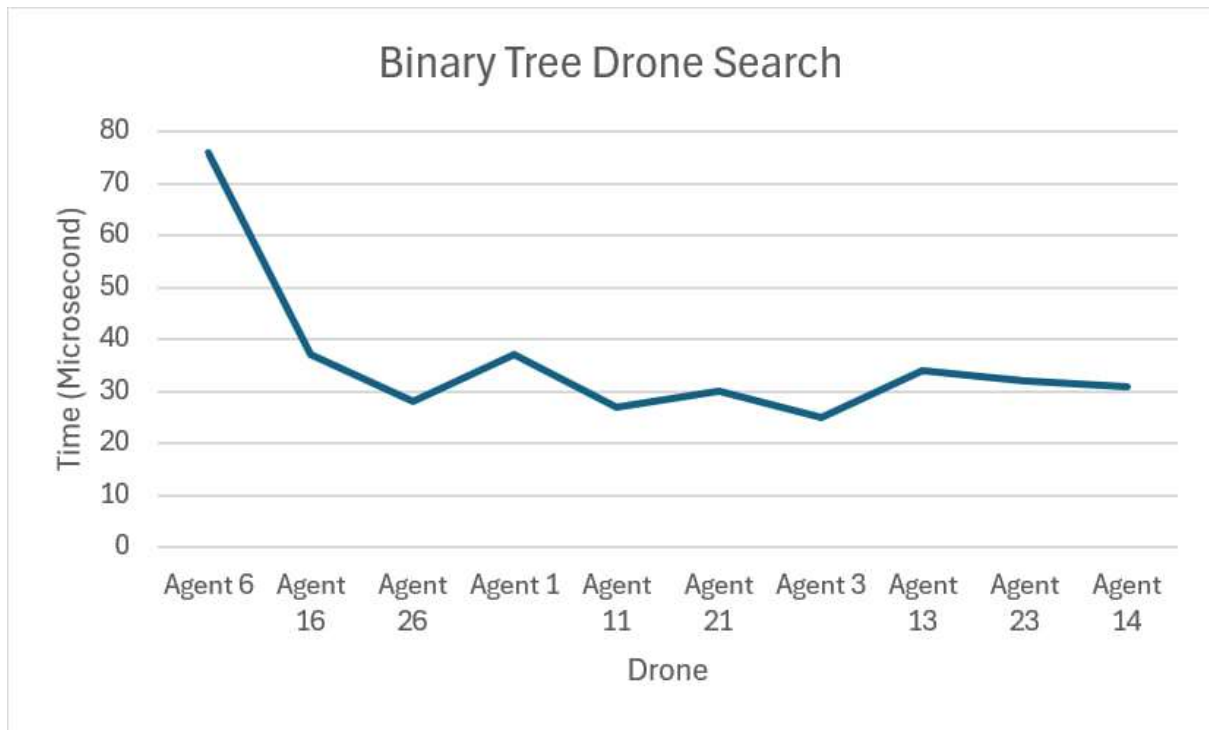
Storage Type : NVME SSD

INTRODUCTION

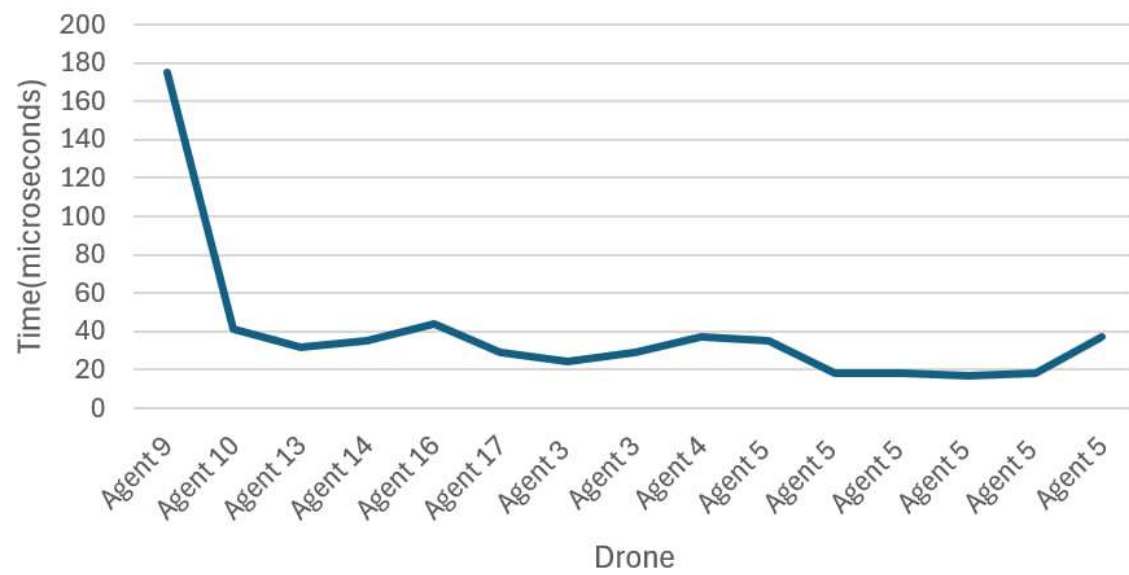
Drones provide an efficient and scalable solution for forest monitoring, overcoming the limitations of traditional methods in covering vast and challenging terrains. This project simulates a **Drone Forest Monitoring System** to aid in environmental data collection and analysis. The simulation tracks each drone's position, surrounding humidity, surrounding temperature, and its operational temperature, ensuring performance and safety. By providing a realistic framework for testing drone-based strategies, the system demonstrates the potential for real-time monitoring of environmental factors, helping to detect risks like forest fires and ecosystem changes. This work highlights the role of drones in advancing forest conservation and environmental protection efforts.

PERFORM ANALYSIS





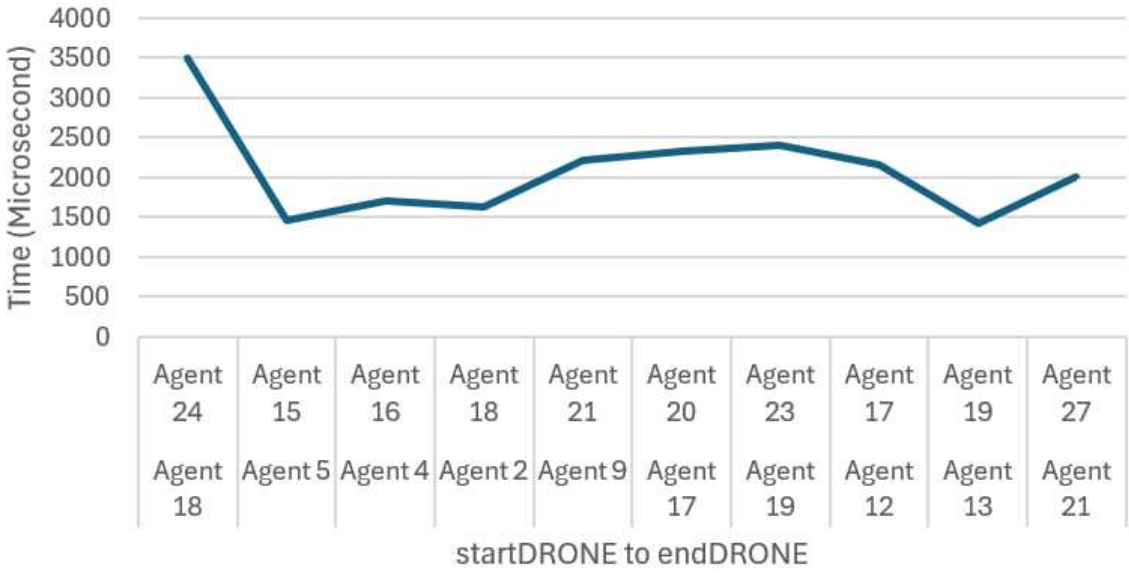
Binary tree drone destruct



Graph Network Drone Search



Shortest Path Between 2 Drone



SCREENSHOTS

