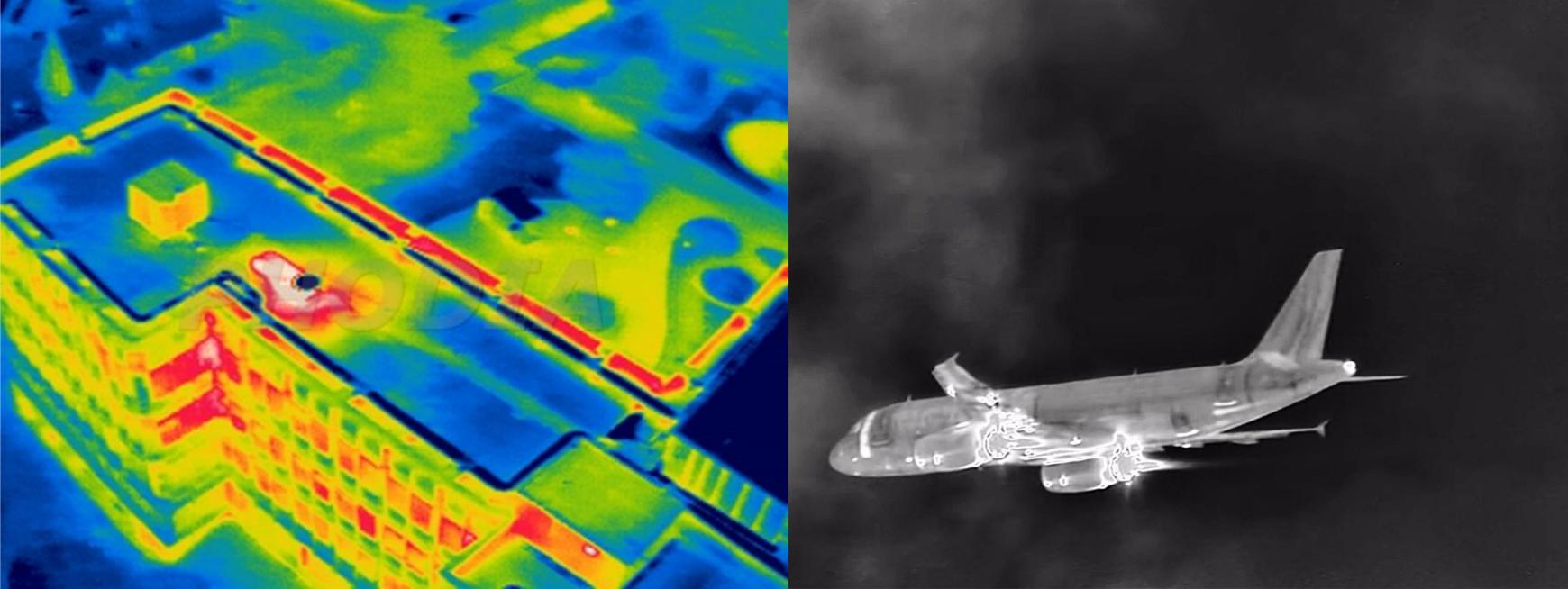


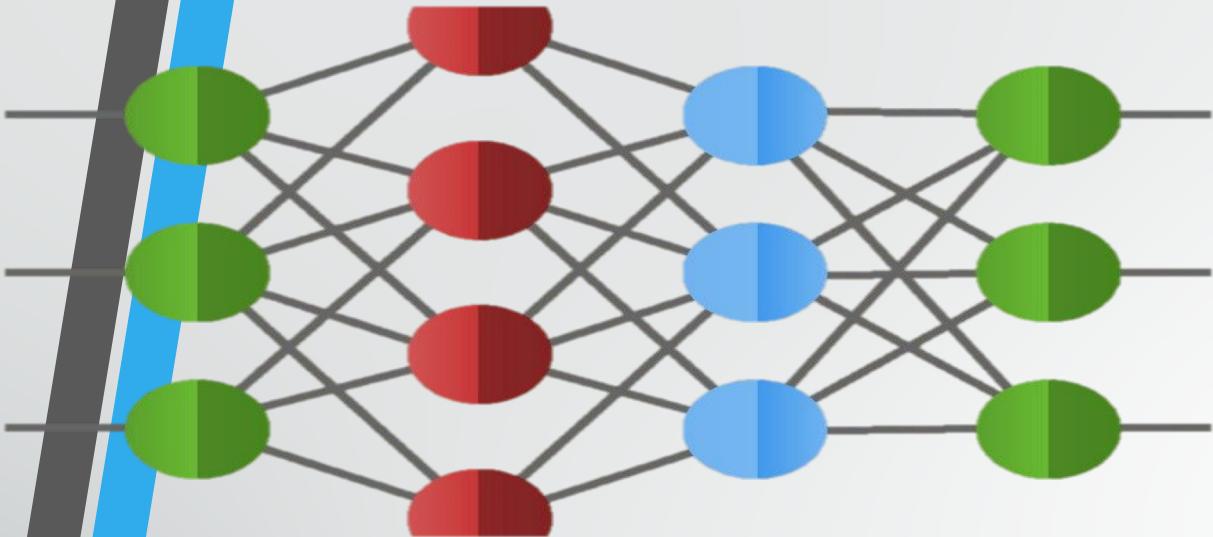
Drone Detection System using Infrared Cameras and Quantum Machine Learning Techniques



- Drone detection is one of the major problems faced by defence personnel especially during night times at border areas or military bases is a quite challenging area. Traditional methods of drone detection such as radar or visual observation, can be limited in their accuracy and range. We are proposing a robust technique to detect drones using infrared cameras with Infrared image analysis and quantum machine learning techniques.



Infrared images can be trained to detect drones using various characteristics, such as their shape, motion and trajectory. By analysing high-resolution infrared images and detecting small or fast-moving objects, like drones, defence forces can quickly and accurately identify potential threats.



Quantum algorithms can help make drone detection faster and more accurate. They can analyze lots of data at once and make better decisions in real-time. One type of quantum algorithm, called the Quantum Fourier Transform (QFT), can analyze infrared images and divide them into different parts based on their unique features. This makes it easier to analyze the image and detect the suspicious objects more efficiently.

Spot 1 6.6 °C

13.7 °C



Image processing techniques with the help of quantum algorithms can provide a powerful tool for detecting and identifying drones of the enemy, enabling defence forces to take appropriate action to mitigate potential threats.