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(57) Abstract :

A system for individual identification and distinction of the Royal Bengal tiger (*Panthera Tigris*) demands absolute attention; not only for monitoring the tiger population but also for saving the precious lives of those workers who generate the approximate tiger count present in a particular topology like Sundarban in West Bengal, India. In this paper, an innovative and effective proposal is presented for identification of individual Bengal Tigers using an autonomous or manually controlled Quad coptersystem depending of the choice of the authority. The system comprises of a Quad copter, Raspberry pi 4 B models, GPS unit and thermal detector. This Detection Model searches for tigers and then the flank (the body part which contains the stripes) of the detected tiger will be passed through a Fine-tuned state-of-the-art network. The system based on deep CNN detects the uncommon features for individual tigers in a particular forest. The proposed system enhances the accuracy of tiger detection technique that is verified by human experts. It also reduces the animal attack prone accidents.

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