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(57) Abstract :
 A forest monitoring system, comprises of one or more towers 101 installed with a sensing unit to monitor a forest region, a detection module configured with a control unit to detect abnormal sounds and visual changes to determine encroachment, a communication unit notifies the authorities regarding detected encroachment, a mobile patrolling bot 103 traverses the forest for monitoring, an imaging unit 106 in combination with an infrared sensor capture images of the forest to determine felled trees, an analysis module receives data from the thermal camera 102 to distinguish between naturally fallen trees and artificially felled trees, a temperature sensor detects temperature of the forest to determine likelihood of forest fires, a water spraying unit sprays water in region of the forest having temperatures indicating likelihood of forest fires to prevent the forest fires, a marking unit marks trees for counting and maintaining a record of trees of the forest.

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