(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002716 A

(19) INDIA

(22) Date of filing of Application :13/01/2024

(43) Publication Date : 23/02/2024

(54) Title of the invention : INTEGRATION OF IOT AND ARTIFICIAL INTELLIGENCE FOR ENHANCED FOREST FIRE DETECTION, MONITORING, AND PREDICTION

(51) International classification :A62C0003020000, G08B0017120000, G08B0017000000, G06N0003080000, G06Q0010040000
(86) International Application No :NA
    Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
    Filing Date :NA
(62) Divisional to Application Number :NA
    Filing Date :NA
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(57) Abstract :
INTEGRATION OF IOT AND ARTIFICIAL INTELLIGENCE FOR ENHANCED FOREST FIRE DETECTION, MONITORING, AND PREDICTION A method for the development of even with the best forest firefighters' efforts, extinguishing flames is challenging. Wildfire smoke and air pollution can be harmful to human health and cause property damage. Forest fires are difficult to detect and anticipate because they spread quickly. Early warning systems that are more accurate are critically needed. These systems could be constructed using IoT (Internet of Things), ML, or DL. The Learning-based Forest Fire Prediction Scheme (LBFFPS) based on deep learning has been presented for timely prediction. This method identifies the forest fire using the sensor unit associated with the system in relation to the learning logics. A 1020-megapixel digital camera has been used for surveillance purposes. The sensor unit comprises of two distinct and powerful sensors: a smoke recognition sensor and a temperature and humidity monitoring sensor. Using these two sensors, the NodeMCU controller discovered and reported the presence of smoke in the surrounding area, as well as the temperature and humidity levels. In this application, the internet of things (IoT) is used to give wireless communication alert capabilities. FIG.1

No. of Pages : 13 No. of Claims : 1