

(54) Title of the invention : USING DEEP CONVOLUTIONAL NEURAL NETWORK FOR OBJECT RECOGNITION FROM REMOTE SENSING IMAGES

<p>(51) International classification :G06N0003040000, G06K0009620000, G06N0003080000, A61P0031120000, G06N0007000000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)Dr.K.Vasanth Kumar Address of Applicant :Professor, Department of CSE-IOT , Malla Reddy Engineering College(Autonomous), Maisammaguda (Post. Via. Kompally), Medchal-Malkajgiri-500100. Maisammaguda -----</p> <p>2)Malla Reddy Engineering College Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)Dr.K.Vasanth Kumar Address of Applicant :Professor, Department of CSE-IOT , Malla Reddy Engineering College(Autonomous), Maisammaguda (Post. Via. Kompally), Medchal-Malkajgiri-500100. Maisammaguda -----</p> <p>2)Ms.K.Sowjanya Naidu Address of Applicant :Assistant Professor, Department of CSE-IOT,Malla Reddy Engineering College(Autonomous), Maisammaguda (Post. Via. Kompally), Mechal-Malkajgiri-500100. Maisammaguda -----</p> <p>3)Kulkarni Ankitha Address of Applicant :Assistant Professor, Department of CSE-IOT , Malla Reddy Engineering College(Autonomous), Maisammaguda (Post. Via. Kompally), Mechal-Malkajgiri-500100. Maisammaguda -----</p> <p>4)A.Laxmi Prasanna Address of Applicant :Assistant Professor, Department of CSE-IOT , Malla Reddy Engineering College(Autonomous), Maisammaguda (Post. Via. Kompally), Mechal-Malkajgiri-500100. Maisammaguda -----</p> <p>5)Vadla Anuja Address of Applicant :Assistant professor, Malla Reddy Engineering College (Autonomous) Maisammaguda, Dhulapally, Medchal-Maljkajgiri, Rangareddy-500100 Maisammaguda -----</p> <p>6)L.Ramu Address of Applicant :Assistant Professor, Department of CSE-IOT , Malla Reddy Engineering College(Autonomous), Maisammaguda (Post. Via. Kompally), Mechal-Malkajgiri-500100. Maisammaguda -----</p> <p>7)N.Niteesha Address of Applicant :Assistant Professor, Department of CSE-IOT , Malla Reddy Engineering College(Autonomous), Maisammaguda (Post. Via. Kompally), Mechal-Malkajgiri-500100. Maisammaguda -----</p> <p>8)Dr.P.Srinivas Address of Applicant :Associate Professor, Department of CSE-IOT , Malla Reddy Engineering College(Autonomous), Maisammaguda (Post. Via. Kompally), Mechal-Malkajgiri-500100. Maisammaguda -----</p> <p>9)Parsha Sumanya Address of Applicant :Assistant Professor, Department of CSE-IOT , Malla Reddy Engineering College(Autonomous), Maisammaguda (Post. Via. Kompally), Mechal-Malkajgiri-500100. Maisammaguda -----</p>
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(57) Abstract :
Classification is one of the most important aspects of remote sensing. The identification of diverse objects present in the land is essential for categorizing photographs of land use. A wide range of approaches have been presented for the data classification challenge. The vast majority of these methods do not extract deep properties. In this work, the deep learning concept is applied to extract deep features. Convolutional Neural Networks (CNN) are introduced as a method for learning features to improve classification; the proposed work is separated into five sections. In the first phase, ZCA Whitening is applied to the land use picture to improve objectives. In the second phase, the Sobel edge detector is used to detect the edge for each training picture. In the third phase, convolution is done between the enhanced image and the edge-identified training images. In the fourth stage, the attributes are obtained using Pooling techniques. After that, the features are used to train the classifiers.

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