NATURAL DISASTERS INTENSITY ANALYSIS AND CLASSIFICATION USING ARTIFICIAL INTELLIGENCE

LITERATURE SURVEY

S.NO	AUTHOR(S)	TITLE	METHODOLOGY	LIMITATIONS
1.	Muhammad Aamir,Tariq Ali,Muhammad Irfan,Ahmad,Shaf,Muhammad Zeeshan Azam,Adam Glowacz,Frantisek Brumercik,Witold Glowacz,Samar Alqhtani, Saifur Rahman	Natural Disasters Intensity Analysis and Classification Based on Multispectral Images Using Multi-Layered Deep Convolutional Neural Networks Publication and Journal: Sensors. volume 21 .issue 8.10.3390.s21082648	This model uses multilayered deep Convolutional Neural Network and works in two blocks: Block-I convolutional neural network (B-I CNN), for detection and occurrence of disasters, and Block-II convolutional neural network (B-II CNN), for classification of natural disaster intensity types with different filters and parameters.	Detection of natural disasters by using deep learning techniques still faces various issues due to noise and serious class imbalance problems.
2.	Luis Moya , Christian Geiß , Masakazu Hashimoto, Erick Mas , Shunichi Koshimura , and Günter Strunz	Disaster Intensity-Based Selection of Training Samples for Remote Sensing Building Damage Classification Publication and Journal: IEEE transactions on geoscience and remote sensing, vol. 59, no. 10, october 2021	This model exploits the spatial distribution of the disaster intensity to collected training samples using a demand parameter threshold and performs calibration of a discriminant function by exploiting the distribution of the training samples in the feature space. Information from in-place sensors (i.e., ground motion sensor, tidal gauges) are integrated into it.	The automatic extraction of training samples is an open problem in the use of machine learning for early disaster response.
3.	Amina Asif, Muhammad Dawood, Bismillah Jan, Javaid Khurshid, Mark DeMaria, Fayyaz ul Amir Afsar Minhas	PHURIE: hurricane intensity estimation from infrared satellite imagery using machine learning Publication and Journal: Neural Computing and Applications, Springer Vol.34	This model is based on a support vector regression model over novel statistical features of infrared images of a hurricane. Kernelized support vector regression resulted in the lowest prediction error between true and predicted hurricane intensities (approximately 10 knots or 18.5 km/h). The source code and web-server implementation of the proposed method called PHURIE (PIEAS HURricane Intensity Estimator)	Satellite images are analysed which can get affected by cloud formation at the time of hurricanes

4.	C.J.van der Sande, S.M.de Jong, A.P.J.de Roo	A segmentation and classification approach of IKONOS-2 imagery for land cover mapping to assist flood risk and flood damage assessment. Publication and Journal: International Journal of Applied Earth Observation and Geoinformation 4 (2003) 217–229	The IKONOS-2 image was first divided into segments and the land cover was classified by using spectral, spatial and contextual information with an overall classification accuracy of 74%. The IKONOS-2-derived land cover map was used as input for the flood simulation model LISFLOOD-FP to produce a Manning roughness factor map of inundated areas.	In spite of the good results of land cover mapping a number of classes such as residential areas and roads are still fairly difficult to identify
5.	M. V. Sangameswar, M. Nagabhushana Rao and S. Satyanarayana	An algorithm for identification of natural disaster affected area Publication and Journal: Journal of Big Data	A real-time, reliable and robust twitter messages which are the source of the information are parsed for the disaster situation and its location to identify the exact location of the event. Tweets are extracted from twitter to R-Studio environment and stored in CSV format in the R database. Later visual analysis is performed for the data store using R Statistical Software.	It is a challenging task to analyze large data emanating from social media with the existing data mining tool and storage database.

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