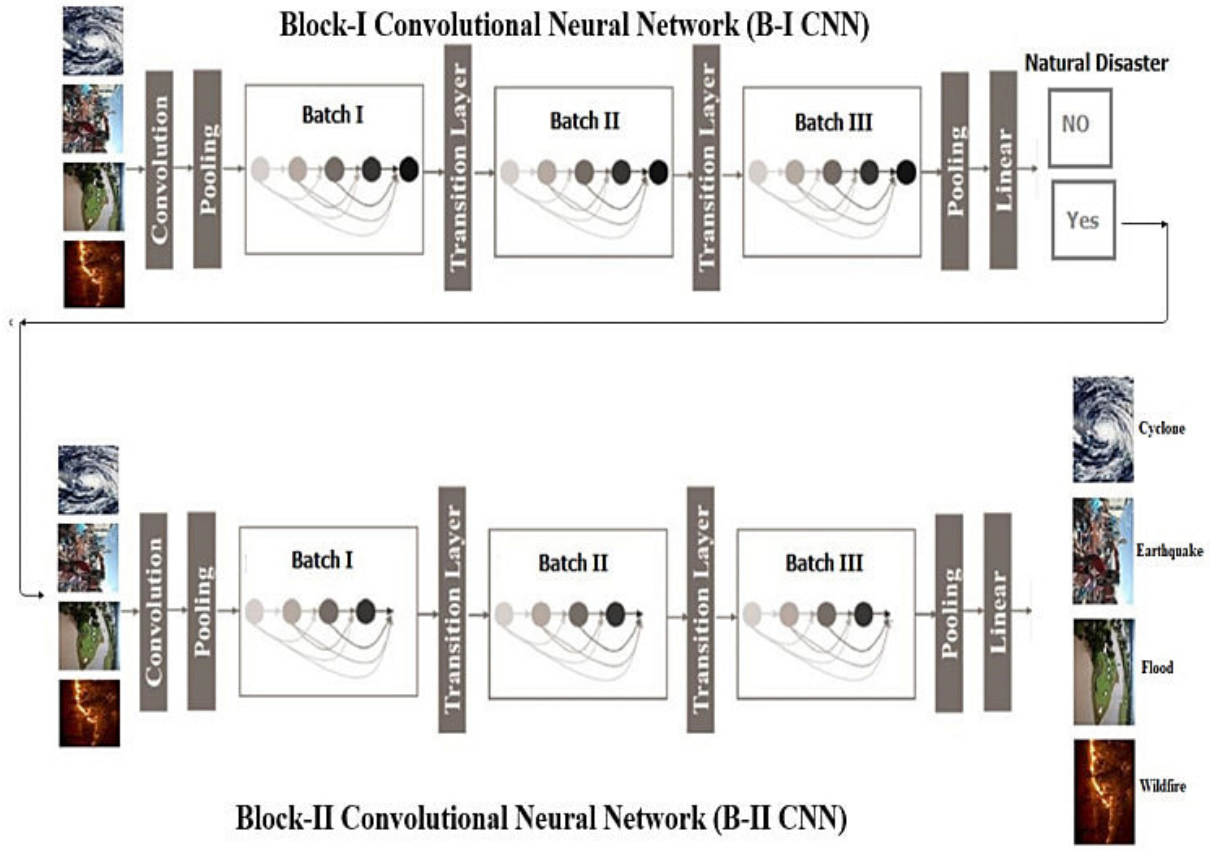
Ideation

Block-I Convolutional Neural Network (B-I CNN)

According to block-I of the convolutional neural network, only a detection process occurred in this phase. However, this block also consists of three small batches having four layers each. Moreover, an image input layer and fully connected layers are present. Additionally, some parameters are also defined with learning rate 0.001 and epoch size 40. On the other hand, the convolutional layers use a filter size of 3 × 3, stride 1 and eight filters that increase in number from 16 to 32 for the second and third minibatches of convolutional neural networks.



Ideation

Block-II Convolutional Neural Network (B-II CNN)

The block-II convolutional neural network takes the output from the first block and finds the types of natural disaster with intensity. Moreover, this block also consists of three minibatches having three layers each with two extra layers such as image input and fully connected layers. Additionally, the same parameters as block-I have been defined for this block also.

Block-II convolutional neural network (B-II CNN).

Block-II Convolutional Neural Network (B-II CNN) with Learning Rate = 0.001 and Epochs = 30		
Layer Name and Batches		**Parameters**
	Image Input Layer	Height: 100, Width: 120, Channel: 3
Batch I:	Convolution Layer Batch Normalization Layer Max Pooling Layer	Filter size: 3 × 3, No. of filters = 8, stride = 1
Batch II:	Convolution Layer Batch Normalization Layer Max Pooling Layer	Filter size: 3 × 3, No. of filters = 16, stride = 1
Batch III:	Convolution Layer Batch Normalization Layer Max Pooling Layer	Filter size: 3 × 3, No. of filters = 32, stride = 1
	Fully Connected Layer	4 Classes

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