**PREDICTION OF BIRD SPECIES**

**Abstract:**

In this study, we present a comprehensive approach for the prediction of bird species using Convolutional Neural Networks (CNNs). The dataset comprises images representing 200 different bird species, with 80% allocated for training and 20% for testing. We used a special kind of artificial intelligence called Convolutional Neural Networks (CNNs) to help our program understand different features in the bird pictures.To train our program, we resized the pictures, convert the image into grey scale, adding the gaussian blur, extracting the features to make sure it could recognize birds accurately. The CNN architecture helped our program learn the patterns and features of each bird species. We trained the program using the 80% of images, and then we tested it using the other 20% to see how well it could guess the bird species. The input for the model will be image of the bird for which we need to find out the specie type. for this image pre-processing is applied and then passed to the model for specie detection. This kind of technology could be useful for monitoring wildlife and conserving different bird species. This study lays the groundwork for future research in using computers to identify animals in pictures, especially in the field of bird watching.

**Keywords**:- Image classification, Convolutional Neural, Network(CNN), Feature extraction, Pattern recognition, Pre-processed dataset, Black-and-white image conversion, Accuracy assessment, TensorFlow library, Biodiversity monitoring, Conservation efforts and Ecological research.