K. S. INSTITUTE OF TECHNOLOGY, BANGALORE-560109
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
PROJECT PHASE 1 + SEMINAR (18CSP77)

PROJECT ABSTRACT SUBMISSION 7TH SEM A & B SEC 2021-22 (Odd Sem)

PROJECT TITLE: WIINGS- Bird Species Identification

Batch No. 2021_CSE_03	**Guide Name: Dr. Deepa SR** deepa 21/10/21

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ABSTRACT

Large scale, accurate bird species recognition is essential for avian biodiversity conservation. It helps us quantify the impact of land use and is fundamental for bird watchers, conservation organizations, ecology consultants and ornithologists all over the world. Nowadays, birdwatching is a common hobby nevertheless to identify their species it requires the assistance of bird books. Many books have been published to help humans determine the correct species and dedicated online forums exist where particulars pertaining to them can be discovered. Nevertheless, identification of the species needs to be carefully analyzed and categorized, large scale bird identification remains almost an impossible task to be done manually.

The existing systems are not centralized and the access to the information regarding the species is not feasible. To provide birdwatchers a handy tool to admire the beauty of birds, a Machine Learning (Deep Learning) based platform will be provided to assist them in recognizing the species of birds using a software based on the concept of Image Recognition. This software would recognize the input image by comparing the model with a trained model with the help of YOLO algorithm and then predict the characteristics of the bird, lifespan and also the complete details of where it hails from. Once the identification is completed, it is cross-verified with the dataset provided in prior. It ensures high quality of experimental data. Few of the features concerning birds are taken into account to distinguish among the different species of birds. They include the color of the feathers, size, tail, iris, beaks, wings and also the color on the crown (top portion of head).

Through this assistance, prediction of weather, it is of utmost help for photographers and bird enthusiasts. This project is aimed to establish an appropriate prediction model and also provides a numerous benefits concerned with nature, as birds are the more active parts of nature.

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System Requirements (H/W and S/W)

Minimum Hardware Requirements:
The experiments will be performed on an Intel Core i5-8th Gen, RADEON 2gb graphics Card, 8gb RAM.

Software Requirements:
This application uses YOLO algorithm to train the machine using GCP (Google Cloud Platform), labeling platform and Roboflow

Base Paper Submitted: YES

Sample Reference: Image Based Bird Species Identification, by Anisha Singh, Akarshita Jain, Bipin Kumar Rai, International Journal of Research in Engineering, IT and Social Sciences, ISSN 2250-0588, Impact Factor: 6.565, Volume 10 Issue 04, April 2020

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ACCEPTED	REJECTED	RE SUBMIT
Reason for Rejection:		
Reason for Re Submit:		

Project Coordinator **HOD**