1.3.2.Number of courses that include experiential learning through project work /field work/internship during the year

Dept:M.E-CSE **Academic Year:2023-2024**

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1.3.2. Number of courses that include experiential learning through project work/field work/internship during last year (2023- 2024)

Sl.No	Name of the Course	Course Code	Program Code	Program Offering	Project Work	Page number
1	Applied Probability and Statistics for Computer Science Engineers	MA4151	405	M.E COMPUTER SCIENCE AND ENGINEERING	✓	3-6
2	Advanced Data Structures and Algorithms	CP4151	405	M.E COMPUTER SCIENCE AND ENGINEERING	✓	3-6
3	Database Practices	CP4152	405	M.E COMPUTER SCIENCE AND ENGINEERING	✓	3-6
4	Network Technologies	CP4153	405	M.E COMPUTER SCIENCE AND ENGINEERING	✓	3-6
5	Internet of Things	CP4291	405	M.E COMPUTER SCIENCE AND ENGINEERING	✓	3-6
6	Machine Learning	CP4252	405	M.E COMPUTER SCIENCE AND ENGINEERING	✓	3-6
7	Web Services and API Design	MP4094	405	M.E COMPUTER SCIENCE AND ENGINEERING	✓	3-6
8	Deep Learning	IF4071	405	M.E COMPUTER SCIENCE AND ENGINEERING	✓	3-6
9	Security Practice	CP4391	405	M.E COMPUTER SCIENCE AND ENGINEERING	✓	3-6

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SPOTTING WILD ANIMAL ATTACK AND ACTIVATING THE EMERGENCY ASSISTANCE IN ZOO USING DEEP LEARNING

PHASE II REPORT

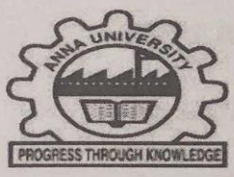
Submitted by

BHUVANESVARI V (812422405001)

in partial fulfilment for the award of the degree of

MASTER OF ENGINEERING IN

COMPUTER SCIENCE AND ENGINEERING



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BONAFIDE CERTIFICATE

Certified that this Thesis titled "**SPOTTING WILD ANIMAL ATTACK AND ACTIVATING THE EMERGENCY ASSISTANCE IN ZOO USING DEEP LEARNING**" is the bonafide work of **BHUVANESVARI V (Reg No: 812422405001)** who carried out the project work under my supervision. Certified further that to the best of knowledge the work reported herein does not from part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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Submitted for the project phase-II viva-voce examination held on 16/08/2024 - FN

INTERNAL EXAMINER

EXTERNAL EXAMINER 16/8/24

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ABSTRACT

Wild animals are those which live and breed in their natural environment without human interference. Wild animals in zoo are often still forced to live crammed into tiny spaces in appalling conditions. There may be possibilities that these wild animals may attack the visitors due to frustration. Sometimes, visitors may also create problems by offering foods and taking selfies. So in order to prevent animals from attacking and to save visitors, if they got any hurts an algorithm is proposed. As of now, cheetah is taken for the project and the sample images were collected from Google. The attack is identified through CCTVs. Furthermore email is generated to the respective authorities.

The CNN algorithm is proposed to identify the behaviour of animals and the faster R-CNN is proposed to identify the attacks and the emergency alert will be set then and there medical ailment will be provided.

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CHAPTER 11

CONCLUSION AND FUTURE WORK

In this project, a deep-learning algorithm CNN is proposed to detect the wild animal that crossed the boundary lane of the zoo. Also it detects whether a single person or group of person are trapped there. The CNN algorithm is used to identify the behaviour of animals. If a group of people is there, then they will tackle the situation. So, in that case only e-mail will be sent to inform the escaping of animals. This detection helps to identify the emergency of the visitors those really needs help. Then the Faster R-CNN algorithm is proposed to detect whether a visitor is being attacked by the wild animal. In that case, emergency alert and ailment will be provided. The main purpose of the project is to protect the visitors of the zoo and to maintain a healthy environment. This model reduces the cost and increases the effectiveness of the project. Instead of using sensors, the project is carried out using the image recognition techniques.

In future, this work might be carried out in a way to alert and identify if visitors are disturbing the zoo animals. Also this implementation can be done using various algorithms, if it provides better accuracy. If any wild animal gets an injury (or) if any behavioural changes has happened to an animal that can also be tracked. Further improvements might also be made in this work on "Spotting wild animal attacks and activating the emergency assistance in zoo", other than accuracy and speed mentioned above.