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(71)**Name of Applicant :**
1)Dr. K. SASIKALA
Address of Applicant :ASSOCIATE PROFESSOR, DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING, VELS INSTITUTE OF SCIENCE TECHNOLOGY AND ADVANCED STUDIES, CHENNAI, CHENGALPATTU, TAMILNADU, INDIA. ---------- ----------
2)Dr. ANUBHAV KUMAR PRASAD
3)Dr. SONIA.H.BAJAJ
4)RASIKA MANOJ REWATKAR
5)Mr. ELURI RAMESH
6)Mr. MADAMANCHI BRAHMAIAH
7)Ms. SANIYA BHALERAO
8)Dr. D. STALIN DAVID
9)Mr. T SREENIVASALU REDDY
10)ANUJA SHIVAJI NALKAR
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)Dr. K. SASIKALA
Address of Applicant :ASSOCIATE PROFESSOR, DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING, VELS INSTITUTE OF SCIENCE TECHNOLOGY AND ADVANCED STUDIES, CHENNAI, CHENGALPATTU, TAMILNADU, INDIA. ---------- ----------
2)Dr. ANUBHAV KUMAR PRASAD
Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, UNITED INSTITUTE OF TECHNOLOGY, NAINI, PRAYAGRAJ, DISTRICT: NAINI, UTTAR PRADESH, INDIA. ---------- ----------
3)Dr. SONIA.H.BAJAJ
Address of Applicant :HEAD OF DEPARTMENT, DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING, G H RAISONI UNIVERSITY, CHHINDWARA, M.P MAHARASHTRA, INDIA. ---------- ----------
4)RASIKA MANOJ REWATKAR
Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF INFORMATION TECHNOLOGY, KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK, NAGPUR, MAHARASHTRA, 441106, INDIA. ---------- ----------
5)Mr. ELURI RAMESH
Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING, R.V.R. & J.C.COLLEGE OF ENGINEERING, CHANDRAMOULIPURAM, CHOWDAVARAM, GUNTUR-522 019, ANDHRA PRADESH, INDIA. ---------- ----------
6)Mr. MADAMANCHI BRAHMAIAH
Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING, R.V.R. & J.C.COLLEGE OF ENGINEERING, CHANDRAMOULIPURAM, CHOWDAVARAM, GUNTUR-522 019, ANDHRA PRADESH, INDIA. ---------- ----------
7)Ms. SANIYA BHALERAO
Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF PHARMACEUTICS MET INSTITUTE OF PHARMACY, BHUJBAL KNOWLEDGE CITY, ADGOAN, NASHIK, 422003, INDIA. ---------- ----------
8)Dr. D. STALIN DAVID
Address of Applicant :ASSOCIATE PROFESSOR, DEPARTMENT OF INFORMATION TECHNOLOGY, VEL TECH MULTI TECH DR. RANGARAJAN DR. SAKUNTHALA ENGINEERING COLLEGE, NO: 42, AVADI – VEL TECH ROAD, POONAMALLEE – AVADI HIGH RD, VEL NAGAR, CHENNAI, TAMIL NADU, 600062, INDIA. ---------- ----------
9)Mr. T SREENIVASALU REDDY
Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING, ANNAMACHARYA INSTITUTE OF TECHNOLOGY AND SCIENCES, KARAKAMBADI, RENIGUNTA, DISTRICT: CHITTOOR, ANDHRAPRADESH, INDIA. ---------- ----------
10)ANUJA SHIVAJI NALKAR
Address of Applicant :STUDENT, DEPARTMENT OF PHARMACEUTICS, MUMBAI EDUCATION TRUST BHUJBAL KNOWLEDGE CITY INSTITUTE OF PHARMACY, BHUJBAL KNOWLEDGE CITY, MET LEAGUE OF COLLEGES, ADGAON, NASHIK, MAHARASHTRA, 422003, INDIA. ---------- ----------

(57) Abstract :
The presented invention is a machine vision system to identify elephant herd when it approaches plantations and raising an alarm to scare them away and also alert the plantation farmers. Multiple cameras are used in distributed manner to identify elephant herd coming from any possible path. A machine vision system designed to identify an elephant herd would typically include several components, which will include a camera or multiple cameras to capture the visual information of the environment where the elephant herd is present. Once the camera captures the images, pre-processing techniques are used to remove any unwanted elements or background and improve the quality of the image. Object detection algorithms are used to identify the elephant herd in the pre-processed images. These algorithms are trained to detect the unique features of elephants, such as their size, shape, and colour. Once the elephant herd is detected, image recognition techniques are used to classify and identify the individual elephants in the herd. This may involve comparing the detected features of each elephant with a database of known elephant features to determine the identity of each individual. The machine vision system can also track the movement of the elephant herd over time. This can help researchers to understand their behaviour and habitat use patterns. Once the elephant herd is identified, the machine vision system can generate alerts or take other actions based on pre-programmed rules. For example, the system may alert wildlife authorities if the herd is in.danger or crossing a road. A loud alarm sound is generated by a speaker along with blinking lights to scare off the elephant herd and also alert the plantation farmers.

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