(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(86) International Application

(87) International Publication : NA

Filing Date

Application Number

Filing Date

Filing Date

(61) Patent of Addition to

(62) Divisional to Application

No

Number

(22) Date of filing of Application: 11/09/2023

·NA

:NA

·NA

·NA

:NA

(21) Application No.202311060772 A

(43) Publication Date: 13/10/2023

## (54) Title of the invention: DEAD OYSTER DETECTION AND MONITORING SYSTEM IN PEARL FARMING USING MACHINE LEARNING

(71)Name of Applicant:

1)Chitkara University

Address of Applicant: Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura --------

2)Chitkara Innovation Incubator Foundation

Name of Applicant: NA Address of Applicant: NA

(72)Name of Inventor:

1)Dr. Vikas Lamba

Address of Applicant :58MB, Sector-7, Indra Gandhi Nagar, Jaipur Jaipur --------2)Dr. Vikas Solanki

Address of Applicant: Department of Computer Science and Engineering, Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura ---------

3)Dr. Vikas Khullar

Address of Applicant :Department of Computer Science and Engineering, Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura --------

4)Dr. Srikanta Kumar Mohapatra

Address of Applicant :Department of Computer Science and Engineering, Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura ---------

5)Dr. Ravi Kumar Sachdeva

Address of Applicant :2183/132, Raj Vihar Colony, Barnala Road, Baldev Nagar, Ambala City- 134007, Haryana, India Ambala ------

6)Dr. Amanpreet Kaur

Address of Applicant: Department of Computer Science and Engineering, Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura -------

7)Dr. Kiran Deep Singh

Address of Applicant :35 Mishra Singh Colony, Tran Tran Road, Amritsar, Punjab, 143001, India Amritsar -------

8)Dr. Ochin Sharma

Address of Applicant: Department of Computer Science and Engineering, Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura --------

9)Dr. Shanky Kansal

Address of Applicant: Department of Computer Science and Engineering, Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura ---------

10)Dr. Rishu Chhabra

Address of Applicant :Department of Computer Science and Engineering, Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura ---------

11)Dr. Susheela Hooda

Address of Applicant :Department of Computer Science and Engineering, Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura ---------

12)Dr. Shweta Lamba

Address of Applicant :1119/2e Govindpuri Manimajra, Chandigarh- 160101, India Chandigarh

13)Dr. Anooja A.

Address of Applicant :JECRC University, Jaipur- 303905, India Jaipur -----

(57) Abstract

ABSTRACT Dead Oyster Detection and Monitoring System in Pearl Farming using Machine Learning The present disclosure describes Dead Oyster Detection and Monitoring System in Pearl Farming using Machine Learning 100 to address the challenge of timely dead oyster detection and enhances overall productivity, reduce labour costs, and maximizes profitability for pearl farmers. It comprises of high resolution cameras 102, microprocessor 200 comprising of machine learning algorithms 202, database 300, microcontroller 302, internet connectivity 304, IoT infrastructure 306, user interface 400 comprising of top app bar 402, reticle 404, tooltips 406, modal bottom sheet 408, object Marker 410, Detected Image 412, servomotor 500. The systems harness the power of technology, specifically IoT-based machine learning, to autonomously detect dead oysters in large water ponds used for pearl farming. REFERENCE FIG 1

No. of Pages: 22 No. of Claims: 10