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भारत सरकार
GOVERNMENT OF INDIA

पेटेंट कार्यालय
THE PATENT OFFICE

पेटेंट प्रमाणपत्र
PATENT CERTIFICATE
(Rule 74 Of The Patents Rules)

क्रमांक : 044124198
SL No :



पेटेंट सं. / Patent No. : 350637
आवेदन सं. / Application No. : 201941034109
फाइल करने की तारीख / Date of Filing : 23/08/2019
पेटेंटी / Patentee : 1.Dr. Rohit Raja 2.Dr. Md Rashid Mahmood 3.Dr. Sandeep Kumar 4.Shilpa Rani et al. et al. et al. et al. et al.

प्रमाणित किया जाता है कि पेटेंटी को उपरोक्त आवेदन में यथाप्रकटित AN APPARATUS AND METHOD FOR REMOTELY MONITORING AN AQUATIC ANIMAL AND CLASSIFICATION THEREOF नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख 23rd day of August 2019 से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled AN APPARATUS AND METHOD FOR REMOTELY MONITORING AN AQUATIC ANIMAL AND CLASSIFICATION THEREOF as disclosed in the above mentioned application for the term of 20 years from the 23rd day of August 2019 in accordance with the provisions of the Patents Act, 1970.



अनुदान की तारीख : 02/11/2020
Date of Grant :

OkSupta
पेटेंट नियंत्रक
Controller of Patent

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, 23rd day of August 2021 को और उसके पश्चात प्रत्येक वर्ष में उसी दिन देय होगी।

Note. - The fees for renewal of this patent, if it is to be maintained will fall / has fallen due on 23rd day of August 2021 and on the same day in every year thereafter.



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Application Details	
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APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	23/08/2019
APPLICANT NAME	1 . Dr. Rohit Raja 2 . Dr. Md Rashid Mahmood 3 . Dr. Sandeep Kumar 4 . Shilpa Rani 5 . Priya Bhatnagar 6 . Rasveen 7 . Munish Kumar 8 . Dr Regonda Nagaraju 9 . Megha Mishra 10 . Dr Hiral Raja
TITLE OF INVENTION	AN APPARATUS AND METHOD FOR REMOTELY MONITORING AN AQUATIC ANIMAL AND CLASSIFICATION THEREOF
FIELD OF INVENTION	MECHANICAL ENGINEERING
E-MAIL (As Per Record)	mail@ideas2ipr.com
ADDITIONAL-EMAIL (As Per Record)	mail@ideas2ipr.com
E-MAIL (UPDATED Online)	
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Application Status	
APPLICATION STATUS	Granted Application, Patent Number :350637

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(54) Title of the invention : AN APPARATUS AND METHOD FOR REMOTELY MONITORING AN AQUATIC ANIMAL AND CLASSIFICATION THEREOF

<p>(51) International classification :H04W4/021</p> <p>(31) Priority Document No :NA</p> <p>(32) Priority Date :NA</p> <p>(33) Name of priority country :NA</p> <p>(86) International Application No :NA</p> <p>Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA</p> <p>Filing Date :NA</p> <p>(62) Divisional to Application Number :NA</p> <p>Filing Date :NA</p>	<p>(71)Name of Applicant :</p> <p>1)Dr. Rohit Raja Address of Applicant :Professor, CSE Department, Sreyas Institute Of Engineering & Technology, Beside Indu Aranya, GSI, Bandlaguda, Nagole, Hyderabad, Telangana 500068 Telangana India</p> <p>2)Dr. Md Rashid Mahmood</p> <p>3)Dr. Sandeep Kumar</p> <p>4)Shilpa Rani</p> <p>5)Priya Bhatnagar</p> <p>6)Rasveen</p> <p>7)Munish Kumar</p> <p>8)Dr Regonda Nagaraju</p> <p>9)Megha Mishra</p> <p>10)Dr Hiral Raja</p> <p>(72)Name of Inventor :</p> <p>1)Dr. Rohit Raja</p> <p>2)Dr. Md Rashid Mahmood</p> <p>3)Dr. Sandeep Kumar</p> <p>4)Shilpa Rani</p> <p>5)Priya Bhatnagar</p> <p>6)Rasveen</p> <p>7)Munish Kumar</p> <p>8)Dr Regonda Nagaraju</p> <p>9)Megha Mishra</p> <p>10)Dr Hiral Raja</p>
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(57) Abstract :

The present invention generally relates to the field of marine life and in particular relates to the health monitoring and identification of aquatic animals. A method for monitoring an aquatic animal and classification thereof is provided. The process includes the steps of: attaching at least one horizontal propeller and at least one vertical propeller to a housing of an unmanned underwater vehicle, wherein the at least one horizontal propeller is detachably coupled to the housing and at least one vertical propeller is detachably coupled to the housing; submerging the unmanned underwater vehicle; controlling actuations of the at least one horizontal propeller and at least one vertical propeller using at least one remote control unit, wherein the at least one horizontal propeller is configured to propel the unmanned underwater vehicle in a horizontal direction and the at least one vertical propeller is configured to propel the unmanned underwater vehicle in a vertical direction; detecting presence of the aquatic animal and an aquatic using a plurality of motion sensors; automatically tracking the aquatic animal upon detection of the aquatic animal within a predetermined spherical range of the unmanned underwater vehicle; capturing a plurality of images of the tracked aquatic animal using a plurality of image capturing sensors respectively; and transmitting the captured plurality of images to the at least one remote control unit, wherein the at least one remote control unit is configured to process the plurality of images to classify the tracked aquatic animal into at least one category of the aquatic animal.

No. of Pages : 29 No. of Claims : 10