LITERATURE SURVEY 1

NAME OF THE PAPER : A Novel method for recognition, Localisation and alarming to prevent swimmers from drowning

NAME OF THE AUTHOR : Hanbing Liu

Mohamed Ben Haj Frej

Bo Wen

JOURNAL PUBLISHED : 2019 IEEE Cloud Summit

MONTH AND YEAR PUBLISHED: 26 March 2020 PUBLISHED

OBJECTIVE OF THE PROJECT: To determine whether swimmers are PROJECT drowning or not, using precise positioning, efficient identification and timely alarms

TECHNOLOGY USED : Feed forward Neural Network to aid the acoustic simulator in analysis of distance of the swimmer

ACCURACY : Better accuracy levels with the help of identification of the swimmer's 3D position

LITERATURE SURVEY 2

NAME OF THE PAPER : Demo Abstract: An underwater sonar-based drowning detection system

NAME OF THE AUTHOR : Lixing He

Haozheng Hu

Zhenvu Yan Guoliang Xing

JOURNAL PUBLISHED : 2022 - 21st ACM/IEEE International Conference on information processing in sensor network

MONTH AND YEAR PUBLISHED: 26 March 2020 PUBLISHED

OBJECTIVE OF THE PROJECT: To know the position of the swimmer using PROJECT unmanned surveillance cameras that require non-trivial installations

TECHNOLOGY USED : Deep neural network for accurate drowning detection

ACCURACY : 88% with a scan time of 1.5 seconds

LITERATURE SURVEY 3

NAME OF THE PAPER : Drowning Detection Algorithm For Intelligent Lifebuoy

NAME OF THE AUTHOR : Dasheng Yang

Yan Cao Yujing Fing

Zaisheng Pan

JOURNAL PUBLISHED : 2021 IEEE International Conference on Unmanned Systems (ICUS)

MONTH AND YEAR PUBLISHED: 22 December 2021 PUBLISHED

OBJECTIVE OF THE PROJECT: To analyze the characteristics of drowning PROJECT person and provide the requirement of rescue control proposing a drowning detection algorithm for intelligent lifebuoy.

TECHNOLOGY USED : An improved YOLOV4 network is detect the drowning person and a geometric distance measurement method based on the bounding box to detect position.

ACCURACY : High detection accuracy with direction

LITERATURE SURVEY 4

NAME OF THE PAPER : An Improved Detection Method of Human Target at Sea Based on Yolov3

NAME OF THE AUTHOR : Dongjin Li

Rufei Zhang Liu Yu

Jiang Feng Wang Jin

JOURNAL PUBLISHED : 2021 IEEE International Conference on Consumer Electronics and Computer Engineering (ICCECE)

MONTH AND YEAR PUBLISHED: 05 February 2021 PUBLISHED

OBJECTIVE OF THE PROJECT: To search for unusual active drowning of PROJECT person in a pool and to initiate an alarm to rescue the person

TECHNOLOGY USED : Object detection technology,an improved Yolov3 algorithm aided with feature extraction network **ACCURACY** : The detection accuracy of the improved algorithm for human targets at sea is 72.17%, which has a good detection effect\

LITERATURE SURVEY 5

NAME OF THE PAPER : Intelligent Swimming-pool design with Embedded Drown Alerting, Preventing and Autonomous Rescue System

NAME OF THE AUTHOR : Pillalamarri Laxman

Anuj Jain

JOURNAL PUBLISHED : 2021 Fourth International Conference on Computational Intelligence and Communication Technologies (CCICT)

MONTH AND YEAR PUBLISHED: 24 August 2021 PUBLISHED

OBJECTIVE OF THE PROJECT: To provide a technological multi layer solution to the PROJECT problem of active drowning with the help of novel algorithm and available technology

TECHNOLOGY USED : A combination of an elevator housing array of Proximity-sensors and deep learning methodologies is used × ACCURACY : The performance of the prototype is satisfactory and giving promising results

LITERATURE SURVEY 6

NAME OF THE PAPER : Computer Vision Enabled Drowning Detection System

NAME OF THE AUTHOR : Upulie Handalage

Nisansali Nikapotha

Chanaka Subasinghe

Tereen Prasanga

Thusithanjana Thilakarthna

JOURNAL PUBLISHED : 2021 3rd International Conference on Advancements in Computing (ICAC)

MONTH AND YEAR PUBLISHED: 11 January 2022 PUBLISHED

OBJECTIVE OF THE PROJECT: To reduce drowning and assure pool safety PROJECT effectively using an automated visual based monitoring system

TECHNOLOGY USED : Using convolutional neural network (CNN) models, it can detect a drowning person in different stages

ACCURACY : A higher degree of accuracy is achieved by identifying the swimmer's 3D position.

LITERATURE SURVEY 7

NAME OF THE PAPER : Autonomous Utility Vehicle (AUVs) Based Emergency Human Drowning Detection System

NAME OF THE AUTHOR : Yaswanthkumar S K

Praveen OK

Rohit RV

JOURNAL PUBLISHED : 2019 IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics (DISCOVER)

MONTH AND YEAR PUBLISHED: 27 February 2020 PUBLISHED

OBJECTIVE OF THE PROJECT: To address the question, how an engineered system PROJECT can save the life of drowning people.

TECHNOLOGY USED : Several detection (ranging detection) techniques are used for detection of human body underwater.

ACCURACY : The results illustrated the effectiveness of the proposed approach thus increasing its viability.

LITERATURE SURVEY 8

NAME OF THE PAPER : The Swimmers Motion Detection Using Improved VIBE Algorithm

NAME OF THE AUTHOR : Muhammad Aftab Hayat

Goutian Yang Atif Iqbal

Adeel Saleem

Adil hussain

Muhammad Mateen

JOURNAL PUBLISHED : 2019 International Conference on Robotics and Automation in Industry (ICRAI)

MONTH AND YEAR PUBLISHED: 28 January 2020 PUBLISHED

OBJECTIVE OF THE PROJECT: To suggest a novel technique for pool drowning PROJECT person detection using video imagery.

TECHNOLOGY USED : Frame by frame difference vibe algorithm frame by frame difference vibe algorithm

ACCURACY : The outcomes demonstrated the efficacy of the suggested strategy, boosting its viability.

LITERATURE SURVEY 9

NAME OF THE PAPER : lot Based Safety Enhanced Swimming Pool with Embedded Techniques to reduce drowning accidents

NAME OF THE AUTHOR : S. Karthik Dhivya Priya E.L. Gokul Anand K.R. A. Sharmila

JOURNAL PUBLISHED : 2020 International Conference on Smart Electronics and Communication (ICOSEC)

MONTH AND YEAR PUBLISHED: 07 October 2020 PUBLISHED

OBJECTIVE OF THE PROJECT: To prevent the drowning of a person in the PROJECT swimming pool by switching on the alarm

TECHNOLOGY USED : Technologies of ultrasonic sensing objects is used along with the embedded system techniques

ACCURACY : The results revealed the practicality of the suggested strategy and showed how effective it Is.

LITERATURE SURVEY 10

NAME OF THE PAPER : Automated Vision-based Surveillance System to Detect Drowning Incidents in Swimming Pools

NAME OF THE AUTHOR : Abdel llah N.Alshbatat

Shamma Alhameli

Shamsa Almazrouei

Salama Alhameli

Wadhha Almarar

JOURNAL PUBLISHED : 2020 Advances in Science and Engineering Technology International Conferences (ASET)

MONTH AND YEAR PUBLISHED: 16 June 2020 PUBLISHED

OBJECTIVE OF THE PROJECT: To track swimmers in a pool using machine learning PROJECT techniques and prevent drowning accidents

TECHNOLOGY USED : Raspberry Pi with the Raspbian operating system,based on the color based algorithm

ACCURACY : The system has a unique capability to monitor and track swimmers