(12) PATENT APPLICATION PUBLICATION

(21) Application No.202341051189 A

(19) INDIA

(22) Date of filing of Application :29/07/2023

(43) Publication Date : 01/09/2023

(54) Title of the invention : Machine Learning Models and Artificial Intelligence Frameworks in Prediction and Resuscitation of Cardiac Arrest

(51) International classification : A61B0005000000, G16H0050200000, G06N0020000000, G16H0050300000, G16H0010600000
(86) International Application No :PCT//
    Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
    Filing Date :NA
(62) Divisional to Application Number :NA
    Filing Date :NA

(71)**Name of Applicant :**
  1)**Mrs. T. Yamunarani**
   Address of Applicant :Assistant Professor, Department of Biomedical Engineering, KSR Institute for Engineering and Technology, KSR Kalvi Nagar, Thokkavadi Post, Tiruchengode - 637215 ----------- -----------
  2)**Akash Koley**
  3)**Shyamal Kumar Biswas**
  4)**Jagrity Biswas**
  5)**Atreyee Ganguly**
  6)**Arunima Biswas**
  7)**Dr. M. Newlin Rajkumar**
  8)**J. Josphin Mary**
  9)**Mr. Manish G. Baheti**
  10)**Dr. Joe Cajetan Lopez**
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
  1)**Mrs. T. Yamunarani**
Address of Applicant :Assistant Professor, Department of Biomedical Engineering, KSR Institute for Engineering and Technology, KSR Kalvi Nagar, Thokkavadi Post, Tiruchengode - 637215 ----------- -----------
  2)**Akash Koley**
Address of Applicant :Assistant Professor, Department of Pharmacology, Calcutta Institute of Pharmaceutical Technology and Allied Health Sciences, Banitabla, Uluberia - 711316 ----------- -----------
  3)**Shyamal Kumar Biswas**
Address of Applicant :Associate Professor, Department of Pharmaceutical Chemistry, Calcutta Institute of Pharmaceutical Technology and Allied Health Sciences, Banitabla, Uluberia - 711316. ----------- -----------
  4)**Jagrity Biswas**
Address of Applicant :Assistant Professor Department of BMLT (lab technology) The Neotia University, Sarisha, Diamond Harbour Road, 24 parganas(s) 743368 ----------- -----------
  5)**Atreyee Ganguly**
Address of Applicant :Assistant Professor, Department of Pharmacology, Calcutta Institute of Pharmaceutical Technology and Allied Health Science, Banitabla, Uluberia,Howrah West Bengal - 711316 ----------- -----------
  6)**Arunima Biswas**
Address of Applicant :Assistant Professor, Department of Pharmacognosy, Calcutta Institute of Pharmaceutical Technology and AHS, Banitabla, Uluberia - 711316 ----------- -----------
  7)**Dr. M. Newlin Rajkumar**
Address of Applicant :Assistant Professor, Department of Electrical and Electronics Engineering, Anna university regional campus, Coimbatore - 641046. ----------- -----------
  8)**J. Josphin Mary**
Address of Applicant :45a, Amman Koil Street, Devar Nagar, Padi, Chennai-600050 ----------- -----------
  9)**Mr. Manish G. Baheti**
Address of Applicant :Assistant Professor, School of Pharmacy, G H Raisoni University, Saunsar 480337 ------ ----- -----------
  10)**Dr. Joe Cajetan Lopez**
Address of Applicant :Unique Institute of Management , Sr. No. 36/3C, Gokulnagar, Katraj Kondhwa Road, Katraj, Pune-411046 ----------- -----------

(57) Abstract :
Machine Learning Models and Artificial Intelligence Frameworks in Prediction and Resuscitation of Cardiac Arrest Abstract: Cardiac arrest is the sudden cessation of cardiac function, which results in the cessation of blood circulation in the body. In order to reduce the occurrence of emergencies and successfully manage them, it is crucial to be able to detect cardiac arrest early and precisely. A growing number of medical professionals are utilising artificial intelligence (AI) technologies and large datasets to enhance their ability to anticipate and manage the requirements of patients at risk for adverse health outcomes. A cardiac arrest in a hospital poses a significant risk to the health of both the individual patient and the general public. Traditional track-and-trigger systems are ineffective at predicting heart attacks because of their low sensitivity and tendency to generate false alarms. Our company provides an innovative early warning system that outperforms conventional track-and-trigger methods by employing deep learning techniques. cardiac arrest is the sudden cessation of cardiac function outside of a medical facility. Using temporal and climatic data, machine learning, a subfield of artificial intelligence, can accurately predict cardiac arrest occurrences.

No. of Pages : 11 No. of Claims : 8