(19) INDIA

(51) International classification

(86) International Application No

Filing Date
(87) International Publication No

(62) Divisional to Application

(61) Patent of Addition to

Application Number

Filing Date

Filing Date

(22) Date of filing of Application:01/08/2023

:G06N0003040000, G06N0003080000, G06N0020000000,

G06K0009620000, G06N0007000000

:NA

: NA

:NA

:NA

:NA

(43) Publication Date: 29/09/2023

(54) Title of the invention: ADAPTIVE DEEP LEARNING FRAMEWORK FOR REAL-TIME OBJECT DETECTION AND RECOGNITION

(71)Name of Applicant:

1)Ms. Neelan Dewangan

Address of Applicant :Research Scholar, Chhattisgarh Swami Vivekananda Technical University, Bhilai,

2)Mr. Gangu Dharma Raju 3)Mr. Vijey Nathan

4)Dr. D. Saravanan 5)Dr. T. Ragupathi 6)Mr. Vijay Ramalingam

7)Mr. R. Rahin Batcha

8)Dr. Sivaram Rajeyyagari

9)Dr. Venubabu Rachapudi 10)Dr. Harishchander Anandaram

Name of Applicant : NA

Address of Applicant : NA (72)Name of Inventor :

1)Ms. Neelan Dewangan

Address of Applicant :Research Scholar, Chhattisgarh Swami Vivekananda Technical University, Bhilai, Chhattisgarh

2)Mr. Gangu Dharma Raju

Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, GMR Institute

of Technology, GMR Nagar, Rajam, Vizianagaram- 532127 3)Mr. Vijey Nathan

Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, SRM TRP

Engineering College, Irungalur, Tiruchirappalli District 4)Dr. D. Saravanan

Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology (Deemed to be University), Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai-

Address of Applicant: Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology (Deemed to be University), Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai-

6)Mr. Vijay Ramalingam

Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology (Deemed to be University), Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai-

7)Mr. R. Rahin Batcha

Address of Applicant : Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology (Deemed to be University), Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai-

8)Dr. Sivaram Rajeyyagari

Address of Applicant :Associate Professor, Department of Computer Science, College of Computing and Information Technology, Shaqra University, Shaqra, Saudi Arabia -------

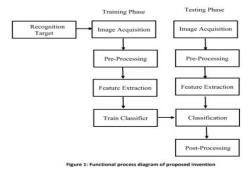
9)Dr. Venubabu Rachapudi Address of Applicant : Associate Professor, Department of Computer Science and Engineering, Koneru Lakshmaiah Educational Foundation, Vaddeswaram, Guntur, 522302 -------

10)Dr. Harishchander Anandaram Address of Applicant : Assistant Professor, Amrita School of Artificial Intelligence, Amrita Vishwa

Vidyapeetham, Coimbatore -

(57) Abstract

The invention presents an adaptive deep learning framework focused on real-time object detection and recognition. By integrating state-of-the-art artificial intelligence techniques, including convolutional neural networks, recurrent neural networks, and reinforcement learning, the system dynamically learns and evolves, providing accurate and immediate object detection and recognition across diverse applications. The framework's unique adaptability, real-time processing, customizable modules, and ethical considerations make it a comprehensive and innovative solution, applicable to various fields such as transportation, security, healthcare, industry, and education. Its multi-dimensional approach heralds a new era of intelligent and responsive technology.



No. of Pages: 20 No. of Claims: 10