Home (http://ipindia.nic.in/index.htm)
 About Us (http://ipindia.nic.in/about-us.htm)
 Who's Who (http://ipindia.nic.in/whos-who-page.htm)

 Policy & Programs (http://ipindia.nic.in/policy-pages.htm)
 Achievements (http://ipindia.nic.in/achievements-page.htm)

 RTI (http://ipindia.nic.in/right-to-information.htm)
 Feedback (https://ipindiaonline.gov.in/feedback)
 Sitemap (shttp://ipindia.nic.in/itemap.htm)

 Contact Us (http://ipindia.nic.in/contact-us.htm)
 Help Line (http://ipindia.nic.in/helpline-page.htm)

(http://ipindia.nic.in/index.htm)





Skip to Main Content

INTELLECTUAL PROPERTY INDIA PATENTSI DESIGNSI TRADE MARKS GEOGRAPHICAL INDICATIONS

(http://ipindia.nic.in/inc

Patent Search

Invention Title	AUTONOMOUS VEHICLES MILLIMETER-WAVE RADAR SYSTEM: DEVELOPMENT AND APPLICATIONS			
Publication Number	22/2024			
Publication Date	31/05/2024			
Publication Type	INA			
Application Number	202441039476			
Application Filing Date	20/05/2024			
Priority Number				
Priority Country				
Priority Date				
Field Of Invention	PHYSICS			
Classification (IPC)	G01S0013950000, G01S0013931000, G05D0001020000, G01S0007030000, G05D0001000000			
Inventor				
Name	Address	Country	Nat	
Dr. N.K Anushkannan	Professor & Head, Department of ECE, Kathir College of Engineering, Coimbatore, Tamilnadu, India.	India	Indi	
Dr. Ruchi Kadwane	Assistant Professor, G H Raisoni University, Amravati, Nagpur, Pin: 444701, Maharashtra, India.	India	Indi	
Mrs. Shabnam Ara	Assistant Professor, Department of Electronic and Communication Engineering, Shivalik College of Engineering, Dehradun, Pin: 248001, Uttarakhand, India.	India	Indi	
Mr. Sujoy Kumar Basu	Assistant Professor, Department of Computer Application, Asansol Engineering College, Asansol, Pin: 713305, West Bengal, India.	India	Indi	
Ms. Rachana Arya	Assistant Professor, Bipin Tripathi Kumaon Institute of Technology, Dwarahat, Almora, Pin: 263653, Uttarakhand, India.	India	Indi	
Mr. Subramaniam G	Assistant Professor, M. Kumarasamy College of Engineering, Karur, Pin: 639113, Tamilnadu, India.	India	Indi	
Ms. G. Shirisha	Academic Consultant, Department of ECE, S.V.U College of Engineering. S.V. University, Tirupati, Pin: 517502, Andhra Pradesh, India.	India	Indi	
Mr. L. Yuvaraj	Student, KSR Institute for Engineering and Technology, KSR Kalvi Nagar, Tiruchengode, Namakkal, Pin: 637 215, Tamilnadu, India.	India	Indi	
Mr. A Karthik	Assistant Professor, Department of ECE, Institute of Aeronautical Engineering, Dundigal, Medchal, Pin: 500043, Telangana, India.	India	Indi	
Dr. Belsam Jeba Ananth. M	Associate Professor, Department of Mechatronics Engineering, SRM Institute of Science and Technology, Kattankulathur, Chengalpattu, Pin: 603203, Tamil Nadu, India.	India	Indi	
Dr. Harikumar Pallathadka	Director and Professor, Manipur International University, Ghari, Imphal, Imphal West, Pin: 795140, Manipur, India.	India	Indi	
Ananth. M Dr. Harikumar Pallathadka	Chengaipattu, Pin: 603203, Tamil Nadu, India. Director and Professor, Manipur International University, Ghari, Imphal, Imphal West, Pin: 795140, Manipur, India.	India	In	

Applicant

4/10/25, 1:14 PM

Intellectual Property India

Name	Address	Country	Nat
Dr. N.K Anushkannan	Professor & Head, Department of ECE, Kathir College of Engineering, Coimbatore, Tamilnadu, India.	India	Indi
Dr. Ruchi Kadwane	Assistant Professor, G H Raisoni University, Amravati, Nagpur, Pin: 444701, Maharashtra, India.	India	Indi
Mrs. Shabnam Ara	Assistant Professor, Department of Electronic and Communication Engineering, Shivalik College of Engineering, Dehradun, Pin: 248001, Uttarakhand, India.	India	Indi
Mr. Sujoy Kumar Basu	Assistant Professor, Department of Computer Application, Asansol Engineering College, Asansol, Pin: 713305, West Bengal, India.	India	Indi
Ms. Rachana Arya	Assistant Professor, Bipin Tripathi Kumaon Institute of Technology, Dwarahat, Almora, Pin: 263653, Uttarakhand, India.	India	Indi
Mr. Subramaniam G	Assistant Professor, M. Kumarasamy College of Engineering, Karur, Pin: 639113, Tamilnadu, India.	India	Indi
Ms. G. Shirisha	Academic Consultant, Department of ECE, S.V.U College of Engineering. S.V. University, Tirupati, Pin: 517502, Andhra Pradesh, India.	India	Indi
Mr. L. Yuvaraj	Student, KSR Institute for Engineering and Technology, KSR Kalvi Nagar, Tiruchengode, Namakkal, Pin: 637 215, Tamilnadu, India.	India	Indi
Mr. A Karthik	Assistant Professor, Department of ECE, Institute of Aeronautical Engineering, Dundigal, Medchal, Pin: 500043, Telangana, India.	India	Indi
Dr. Belsam Jeba Ananth. M	Associate Professor, Department of Mechatronics Engineering, SRM Institute of Science and Technology, Kattankulathur, Chengalpattu, Pin: 603203, Tamil Nadu, India.	India	Indi
Dr. Harikumar Pallathadka	Director and Professor, Manipur International University, Ghari, Imphal, Imphal West, Pin: 795140, Manipur, India.	India	Indi

Abstract:

The present invention relates to a novel millimeter-wave radar system designed specifically for autonomous vehicles, aiming to revolutionize their perception capabilities. Operating at frequencies above 24 GHz, the radar system offers superior resolution and accuracy compared to traditional microwave radar systems, enabling precise dete and tracking of objects in various driving conditions, including adverse weather. The radar system integrates advanced antenna design, signal processing algorithms, and r modal sensor fusion to provide comprehensive situational awareness around the vehicle, facilitating applications such as adaptive cruise control, collision avoidance, and pedestrian detection. By addressing the limitations of existing radar systems and leveraging innovative technologies, the invention promises to enhance the safety, reliabil efficiency of autonomous driving systems, paving the way for the widespread adoption of self-driving technology in diverse real-world environments.

Complete Specification

Description:The embodiments of the present invention generally relates to the field of autonomous vehicles, specifically focusing on the development and application of millimeter-wave radar systems. These radar systems play a crucial role in enabling autonomous vehicles to perceive and understand their surroundings, thereby enhanc safety, navigation, and overall performance. The invention aims to address challenges associated with existing radar systems by leveraging millimeter-wave technology tr achieve higher resolution, accuracy, and reliability in detecting objects, obstacles, and environmental conditions. Additionally, the invention explores various applications millimeter-wave radar systems in autonomous vehicles, including collision avoidance, adaptive cruise control, pedestrian detection, lane keeping, and other advanced dr assistance features.

BACKGROUND OF THE INVENTION

The following description of related art is intended to provide background information pertaining to the field of the disclosure. This section may include certain aspects c the art that may be related to various features of the present disclosure. However, it should be appreciated that this section be used only to enhance the understanding the reader with respect to the present disclosure, and not as admissions of prior art.

Autonomous vehicles, also known as self-driving cars, represent a transformative technology poised to revolutionize transportation. These vehicles are equipped with an array of sensors and advanced computing systems that enable them to navigate and operate independently without human intervention. Key applications include perso transportation, ride-sharing services, logistics, and public transportation.

View Application Status



Terms & conditions (http://ipindia.gov.in/terms-conditions.htm) Privacy Policy (http://ipindia.gov.in/privacy-policy.htm)

Copyright (http://ipindia.gov.in/copyright.htm) Hyperlinking Policy (http://ipindia.gov.in/hyperlinking-policy.htm)

Accessibility (http://ipindia.gov.in/accessibility.htm) Archive (http://ipindia.gov.in/archive.htm) Contact Us (http://ipindia.gov.in/contact-us.htm) Help (http://ipindia.gov.in/help.htm)

Content Owned, updated and maintained by Intellectual Property India, All Rights Reserved.

Page last updated on: 26/06/2019