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Patent Search

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Inventor

Name	Address	Country	Nationality
Dr. Indradeep Kumar	Assistant Professor, Department of Aeronautical Engineering, Institute of Aeronautical Engineering, Dundigal, Hyderabad, Telangana, India- 500043	India	India
Manu Kumar Thakur	Institute of Aeronautical Engineering, Dundigal, Hyderabad, 500043	India	India
Dr. K Sakthi Vadivel	Assistant Professor-SG, Department of Automobile Engineering, Dr Mahalingam College of Engineering and Technology, Pollachi - 642003	India	India
Pawan Kishore Jha	Assistant Professor, Department of Management Studies, Management Education and Research Institute, Janak Puri, New Delhi 110058	India	India
Gautam Singh	Assistant Professor, Department of Mechanical Engineering, SAGE University, Indore, M.P., 452020	India	India
A Sathish Kumar	Assistant Professor, Department of Mechanical Engineering, St. Joseph's Institute of technology, OMR, Chennai-119	India	India
Mr. M. Sudhakar	Assistant Professor, Department of Mechanical Engineering, Sri Sai Ram Engineering College, West Tambaram, Chennai, Tamil Nadu - 600044	India	India

Applicant

Name	Address	Country	Nationality
Dr. Indradeep Kumar	Assistant Professor, Department of Aeronautical Engineering, Institute of Aeronautical Engineering, Dundigal, Hyderabad, Telangana, India- 500043	India	India
Manu Kumar Thakur	Institute of Aeronautical Engineering, Dundigal, Hyderabad, 500043	India	India
Dr. K Sakthi Vadivel	Assistant Professor-SG, Department of Automobile Engineering, Dr Mahalingam College of Engineering and Technology, Pollachi - 642003	India	India
Pawan Kishore Jha	Assistant Professor, Department of Management Studies, Management Education and Research Institute, Janak Puri, New Delhi 110058	India	India
Gautam Singh	Assistant Professor, Department of Mechanical Engineering, SAGE University, Indore, M.P., 452020	India	India
A Sathish Kumar	Assistant Professor, Department of Mechanical Engineering, St. Joseph's Institute of technology, OMR, Chennai-119	India	India
Mr. M. Sudhakar	Assistant Professor, Department of Mechanical Engineering, Sri Sai Ram Engineering College, West Tambaram, Chennai, Tamil Nadu - 600044	India	India

Abstract:

The present invention relates to a system and method for an internal combustion engine using alternative fuel. The engine comprises an engine block with combustion chambers with an alternative fuel injection system adapted to inject fuel into the combustion chambers. The internal combustion engine includes an electronic control unit configured to control the timing, duration, and quantity of the fuel injection with a plurality of sensors for monitoring engine parameters. Further, a dual-fuel capability is used to operate with different fuels. Accompanied Drawing [FIG. 1]

Complete Specification

Description:[001] The invention, in general, relates to a combustion engine. More particularly, the invention relates to the internal combustion engine using alternative fuel injection system and method thereof.

BACKGROUND OF THE INVENTION

[002] The following description provides the information that may be useful in understanding the present invention. It is not an admission that any of the information provided herein is prior art or relevant to the presently claimed invention, or that any publication specifically or implicitly referenced is prior art.

[003] The automotive sector consistently conducts research into the combustion process within internal combustion engines to enhance both fuel efficiency and reduce emissions. Achieving optimal engine performance necessitates the capability to precisely manage the engine's operation from one combustion cycle to the next. Additionally, the primary factor contributing to instability lies in the complexities associated with controlling the temperature of the air-fuel mixture within the engine cylinder consistently from cycle to cycle.

[004] Moreover, the internal combustion engine has been a preliminary technology in the automotive and transportation industries. It powers a vast majority of vehicles, from cars and trucks to ships and airplanes. However, the conventional gasoline and diesel fuels used in these engines have been associated with environmental challenges, including air pollution and greenhouse gas emissions, which contribute to climate change and health problems.

[005] To address these issues, there has been growing interest in developing alternative fuels and injection systems for internal combustion engines. These alternatives aim to reduce the environmental impact of transportation, increase fuel efficiency, and decrease the reliance on fossil fuels. The development of alternative fuel injection systems and methods is crucial to effectively utilize these fuels in internal combustion engines. These systems must optimize fuel-air mixing, combustion efficiency, and

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