

(54) Title of the invention : MECHANISM FOR SEGMENTED VALVE AND FUEL INJECTION FOR INTERNAL COMBUSTION ENGINES

| | |
|---|--|
| <p>(51) International classification :B63H 213800, F02D 413400, F02M 410000, F02M 611600, F02M 630000</p> <p>(86) International Application No :PCT// Filing Date :01/01/1900</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p> | <p>(71)Name of Applicant :</p> <p>1)Dr. Vinay Kumar Domakonda Address of Applicant :Assistant Professor, Department of Mechanical Engineering, Vignan's Foundation for Science Technology and Research (Deemed to be University), Vadlamudi, Guntur District, 522213 -----</p> <p>2)Dr. Farooq Shaik</p> <p>3)Dr.Shaik.Hidayatulla Shariff</p> <p>4)Mr. S. Kaushik Rathan</p> <p>5)Dr. P.C. Krishnamachary</p> <p>6)Dr. Joshuva Arockia Dhanraj</p> <p>7)Mr. M. Sudhakar</p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor :</p> <p>1)Dr. Vinay Kumar Domakonda Address of Applicant :Assistant Professor, Department of Mechanical Engineering, Vignan's Foundation for Science Technology and Research (Deemed to be University), Vadlamudi, Guntur District, 522213 -----</p> <p>2)Dr. Farooq Shaik Address of Applicant :Assistant Professor, Department of Mechanical Engineering, Vignan's Foundation for Science Technology and Research (Deemed to be University), Vadlamudi, Guntur District, 522213 -----</p> <p>3)Dr.Shaik.Hidayatulla Shariff Address of Applicant :Associate Professor, Department of Mechanical Engineering, Avanthi Institute of Engineering and Technology, Cherukupalli (Village), Bhogapuram (Mandal), Near Tagarapavalasa Bridge, Vizianagaram (Dist.)-531162 -----</p> <p>4)Mr. S. Kaushik Rathan Address of Applicant :Assistant Professor, Mechanical Engineering Department, Panimalar Engineering College [Autonomous], Bangalore Highway Varadharajapuram, Nazarethpettai, Poonamalle, Chennai- 600123 -----</p> <p>5)Dr. P.C. Krishnamachary Address of Applicant :Principal and Professor, Department of Mechanical Engineering, J. B. Institute of Engineering and Technology, Hyderabad 500075, Telangana, India -----</p> <p>6)Dr. Joshuva Arockia Dhanraj Address of Applicant :Assistant Professor (S.G.), Centre for Automation and Robotics (ANRO), Department of Mechatronics Engineering, Hindustan Institute of Technology and Science, #1, IT Expressway, Bay Range Campus, Padur, Tamil Nadu 603103, India -----</p> <p>7)Mr. M. Sudhakar Address of Applicant :Assistant Professor, Department of Mechanical Engineering, Sri Sai Ram Engineering College, West Tambaram, Chennai, Tamil Nadu - 600044 -----</p> |
|---|--|

(57) Abstract :

[049] The proposed invention relates to a mechanism for segmented valve and fuel injection for internal combustion engines, designed to improve combustion efficiency and reduce emissions. The invention consists of segmented valves and injectors that can be independently controlled, allowing for precise regulation of the air-fuel mixture entering the combustion chamber. An advanced control system, incorporating sensors and machine learning algorithms, optimizes the valve timing, fuel injection, and other engine parameters in real-time for improved performance and reduced environmental impact. The invention is compatible with alternative fuels, such as biofuels or hydrogen, and can be used in a variety of internal combustion engines, including those used in automotive, marine, and industrial applications. Accompanied Drawing [FIGS. 1-2]

No. of Pages : 24 No. of Claims : 10