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(71)Name of Applicant :

1)Mrs. Bhavana Singh

Address of Applicant :Assistant Professor, Department of Mechanical Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----

2)Dr. Vaibhav Trivedi

3)Mr. Ayush Saxena

4)Mr. Mayank Bharadvaj

5)Mr. Vivek Shankhdhar

6)Mr. Shashank Kumar

7)Mr. Arvind Chaudhary

8)Mr. Mohammad Javed

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

1)Mrs. Bhavana Singh

Address of Applicant :Assistant Professor, Department of Mechanical Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----

2)Dr. Vaibhav Trivedi

Address of Applicant :Professor, Department of Mechanical Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----

3)Mr. Ayush Saxena

Address of Applicant :Assistant Professor, Department of Mechanical Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----

4)Mr. Mayank Bharadvaj

Address of Applicant :Assistant Professor, Department of Mechanical Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----

5)Mr. Vivek Shankhdhar

Address of Applicant :Assistant Professor, Department of Mechanical Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----

6)Mr. Shashank Kumar

Address of Applicant :Assistant Professor, Department of Mechanical Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----

7)Mr. Arvind Chaudhary

Address of Applicant :Assistant Professor, Department of Mechanical Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----

8)Mr. Mohammad Javed

Address of Applicant :Assistant Professor, Department of Mechanical Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----

(57) Abstract :

The present invention relates to the evaluation of emission traits of diesel engine at various injection timing using blends of Sesame oil Biodiesel. The Sesame oil biodiesel is blended with B50. The prepared biodiesel is evaluated for various emission parameters such as Carbon monoxide, hydro carbon, and smoke opacity. The emission performance of sesame oil bio diesel were done by using Graphical evaluation by comparing with the diesel. The sesame oil biodiesel is evaluated for emission parameters at various loads such as 0%, 20%, 40%, 60%, 80%, 100%. wherein the CO emissions at loads of 0%, 20%, 40%, 60%, 80%, 100% are 0.08, 0.07, 0.058, 0.048, 0.045, 0.06 % Volume. Results showed that the Sesame oil biodiesel is suitable as fuel for a diesel engine. Its B50 blend at 24° BTDC proved potentially suitable for diesel engine. Alone it can be used as diesel engine without any modifications.

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