

Research & Development

The Department of Mechanical Engineering has a R&D center approved by Visvesvaraya Technology University, Belagavi.

Thrust areas of Research in the Department of Mechanical Engineering are:

- Alternative Fuels For IC Engine
- Advanced Materials
- Manufacturing Science

Ph. D Enrollment in Research Centre

| Sl. No. | Name of the Research Scholar | USN | Year of Registration | Guide | Co-Guide | Title of the Thesis |
|---------|------------------------------|------------|----------------------|--------------------|----------------|--|
| 1. | Naneen Kumar R R | 4RA16PMJ01 | 2016 | Dr. Dhananjaya D A | - | Experimental Study on Effect of Additives on the Performance, Emission & Combustion Characteristics of Bio-diesel Blend Fueled CI Engine |
| 2. | Narayanaswamy K M | 4RA15PMJ02 | 2015 | Dr. Dhananjaya D A | Dr. Ramesh D K | A Study on the suitability of Municipal Waste Plastic Oil available in India as Alternative fuel for IC Engine |

PUBLICATIONS

| National Conference | | | | | |
|---------------------|----------------------|---|--|-----------------|---------------------|
| Sl. No | Name of The Faculty | Description / Title of the Paper | Name of Journal | ISBN/ISSN | Date of Publication |
| 1. | Dr. Dhananjaya D. A. | Effect on Combustion, Performance and Emission using Biodiesel Blends and Additives – A Review | International Journal in Recent Trends in Automation in Automobile Engineering | | 2020 |
| 2. | Dr. Dhananjaya D. A. | Experimental Study on Effect of Additives on the Performance and Emission Characteristics of Biodiesel Blend Fueled CI Engine | International Research Journal of Engineering and Technology | | 2019 |
| 3. | Dr. Dhananjaya D. A. | Comparative Study of Performance Characteristics of Diesel Engine Fuelled with Calophyllu Inophyllum and Pongamia Pinta | International Journal of Engineering Researches and Management Studies | ISSN:2394-7659 | 2017 |
| 4. | Dr. Dhananjaya D. A. | Experimental Studies on Performance and Emission Characteristics of Fish Oil Methyl Ester and its Blends at different Injection Opening Pressures in direct injection CI Engine | International Journal of Engineering Research and Applications | IJERA:2248-9922 | 2015 |
| 5. | Dr. Dhananjaya D. A. | An Investigation on the Performance | International Journal for | IJRST:2349- | 2015 |

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|----|----------------------|---|--|----------------|------|
| | | and Emission Characteristics of Direct Injection Diesel Engine Using Milk Scum Oil as Biodiesel | Innovative Research in Science and Technology | 6010 | |
| 6. | Dr. Dhananjaya D. A. | Experimental Study of Heat Transfer in a Radiator using Nanofluid | International Journal of Engineering Development and Research | ISSN:2321-9939 | 2015 |
| 7. | Dr. Dhananjaya D. A. | Study on Effect of Injection Pressure on Performance Characteristics of Diesel Engine Using Different Blends of Biodiesel | International Journal of Emerging Technologies in Computational and Applied Sciences | | 2014 |
| 8. | Dr. Dhananjaya D. A. | Combustion Characteristics of Diesel Engine Operating on Jatropha Methyl Ester as fuel | International Scientific Journal of Thermal Science | | 2010 |
| 9. | Dr. Dhananjaya D. A. | Combustion and Emission Characteristics of DI Compression Ignition Engine Operated on Jatropha oil Methyl Ester With Different Injection Parameters | International Journal of Mechanical and Materials Engineering | | 2009 |
| 10 | Dr. Dhananjaya D. A. | Performance and Emission Evaluation of Diesel Engine fuelled Jatropha Oil Methyl Ester using Ceramic Coating on the Piston Head | Journal of Middle European Construction and Design of Cars | | 2008 |

International Conferences

| International Conferences | | | | | |
|---------------------------|----------------------|---|---|----------------------|---------------------|
| Sl. No | Name of The Faculty | Description / Title of the Paper | Name of International Conferences | ISBN/ISSN | Date of Publication |
| 1. | Dr. Dhananjaya D. A. | Comparative Study of Performance Characteristics of Diesel Engine Fuelled with Calophyllu Inophyllum and Pongamia Pinta | International Conference on Advances in Mechanical Sciences, Malnad College of Engineering, Hassan, Karnataka | | 2017 |
| 2. | Dr. Dhananjaya D. A. | Comparative Studies of Performance, Emission and Combustion Characteristics of SAE and NCE Engine Fuelled With B20 Jatropha Biodiesel | International Conference on 'Frontiers in Mechanical Engineering, National Institute of Technology, Surathkal, Karnataka | | 2017 |
| 3. | Dr. Dhananjaya D. A. | Combustion and Emission Characteristics of diesel, B100 and B20 fuel on a Thermal Barrier Coating on Piston Crown in CI engine at optimum IOP and IT | Proceeding of the SAE INDIA International Mobility Engg. Congress & Exposition, Innovative Technologies for Sustainable Mobility, Chennai | SAE No. 2009-28-0042 | 2009 |
| 4. | Dr. Dhananjaya D. A. | Effect of Bio-diesel (B20) on Performance and Emissions of Optimum Injector Opening Pressure Operating at different Injection Timing of Semi-adiabatic Engine | Proceeding of the 7 th Asia-Pacific Conference on Combustion, National Taiwan University, Taipei, Taiwan. | | 2009 |

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| 5. | Dr. Dhananjaya D. A. | Effect of Injection Pressure and Injection timing on a Semi-adiabatic CI engine fuelled with blends of Jatropa oil Methyl Esters”, | Proceeding of the SAE INDIA International Mobility Conference, New Delhi, | SAE No. 2008-28-0070 | 2008 |
| 6. | Dr. Dhananjaya D. A. | Effect of Injection Pressure on a Semi-adiabatic engine fueled with blends of Jatropa oil Methyl Esters”, | Proceeding of the International Conference & XX th National conference on IC engine and Combustion, JNTU, Hyderabad, Andhra Pradesh, India. | | 2007 |

National Conferences

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|----------------------|----------------------|--|---|-----------|---------------------|
| Sl. No | Name of The Faculty | Description / Title of the Paper | Name of National Conferences | ISBN/ISSN | Date of Publication |
| 1. | Dr. Dhananjaya D. A. | Experimental Study on Effect of Additives on the Performance and Emission Characteristics of Biodiesel Blend Fueled CI Engine. | National Conference on Advances in Mechanical Engineering RIT, Hassan | | 2019 |
| 2. | Dr. Dhananjaya D. A. | Study of Performance, Combustion and Emission Characteristics on Diesel Engine using different Biodiesel by varying Injection Parameters, | 25 th National Conference on I C Engine and Combustion, NITK, Suratkal | | 2017 |
| 3. | Dr. Dhananjaya D. A. | Combustion and Emission Characteristics of a Low Heat Rejection Diesel Engine Fuelled Jatropa Biodiesel and its Blend B20 Fuel | Proceeding of the XX th National conference on IC Engine and Combustion, Davanagere, Karnataka, India | | 2009 |
| 4. | Dr. Dhananjaya D. A. | Performance and Emissions Studies of Esterified Jatropa oil and its blend fueled Diesel Engine under different Injection Pressures”, | Proceeding of the National Conference on Recent Trends in Mechanical Engineering Sciences, pp. 63-69, February-2008, SSIT, Tumkur, Karnataka, India | | 2008 |
| 5. | Dr. Dhananjaya D. A. | Performance and Emissions Evaluation of diesel engine with blends of Jatropa oil Methyl Ester and Diesel fuel under different Injection Parameters”, | Proceeding of the National Conference on Recent Advances in Mechanical Engineering, Tamil Nadu, India. | | 2008 |
| 6. | Dr. Dhananjaya D. A. | Optimization of Experimental Conditions for the production of Jatropa oil as Bio-fuel by Transesterification Method”, | Proceeding of the National Conference for Research Scholars, Bagalkot, Karnataka, India. | | 2007 |

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|---|---------------------|--|--|------|
| 7 | Dr. Dhananjaya D. A | Effect of Operating on CBC Fluctuation in a Single cylinder Diesel Engine, | Proceeding of the National Conference on Advances in Automobile Engineering, Anna University, Chennai, Tamilnadu, India. | 1998 |
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