

## **DAMODHARAN DILLIKANNAN**

Assistant Professor  
Department of Mechanical Engineering  
Jeppiaar Engineering College  
Chennai-600119  
Tamil Nadu, India.

Contact no.: 9840481918

Email: [damumech07@gmail.com](mailto:damumech07@gmail.com)

### **PUBLICATIONS:**

**Orchid ID** : [orcid.org/0000-0002-8804-6913](https://orcid.org/0000-0002-8804-6913)

**Scopus ID** : [Author ID: 57192088075](https://orcid.org/0000-0002-8804-6913)

**Google Scholar Link** : <https://scholar.google.co.in/citations?user=AAqZ-BMAAAAJ&hl=en>

### **Ph.D Publications (SCD):**

1. **Damodharan D**, Sathiyagnanam AP, Rana D, Rajesh Kumar B, Saravanan S. (2017) “Extraction and characterization of waste plastic oil (WPO) with the effect of n -butanol addition on the performance and emissions of a DI diesel engine fueled with WPO/diesel blends”. *Energy Conversion and Management (Elsevier)*. Vol 131, page 117-126. <https://doi.org/10.1016/j.enconman.2016.10.076> (Impact Factor: 7.181); (Citation: 36);
2. **Damodharan D**, Sathiyagnanam AP, Rajesh Kumar B, Ganesh KC. (2018) “Cleaner emissions from a DI diesel engine fueled with waste plastic oil derived from municipal solid waste under the influence of n-pentanol addition, cold EGR, and injection timing”. *Environmental Science and Pollution Research (Springer)*. Vol 25, issue 14, page 13611-13625. <https://doi.org/10.1007/s11356-018-1558-5> (Impact Factor: 2.914); (Citation: 9);
3. **Damodharan D**, Sathiyagnanam AP, Rana D, Kumar BR, Saravanan S. (2018). “Combined influence of injection timing and EGR on combustion, performance and emissions of DI diesel engine fueled with neat waste plastic oil”. *Energy Conversion and Management (Elsevier)*. Vol 161, page 294-305. <https://doi.org/10.1016/j.enconman.2018.01.045> (Impact Factor: 7.181); (Citation: 28).
4. **Damodharan D**, Sathiyagnanam AP, Rana D, Saravanan S, Rajesh Kumar B, Sethuramasamyraja B. (2018). “Effective utilization of waste plastic oil in a direct injection diesel engine using high carbon alcohols as oxygenated additives for cleaner emissions”. *Energy Conversion and Management (Elsevier)*. Vol 166, page 81-97. <https://doi.org/10.1016/j.enconman.2018.04.006> (Impact Factor: 7.181); (Citation: 14).

### **Post Ph.D Publications (SCI):**

5. Melvin Victor De Poures, Sathiyagnanam AP, Rana D, Saravanan S, Rajesh Kumar B, Sethuramasamyraja B, **Damodharan D.** (2018). "Using renewable n-octanol in a non-road diesel engine with some modifications". *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects (Taylor and Francis)*. Vol. 41, Issue 10, page 1194-1208. <https://doi.org/10.1080/15567036.2018.1544997> (Impact Factor: 0.894); (Citation: 3).
6. **Damodharan D**, Gopal K, Sathiyagnanam AP, Rajesh Kumar B, Melvin Victor De Poures, Mukilarasan N. (2019). "Performance and emission study of a single cylinder diesel engine fueled with n-octanol/WPO with some modifications". *International Journal of Ambient Energy (T&F)*. Published online 10/Jan/2019. <https://doi.org/10.1080/01430750.2018.1563824> (Citation: 3); (ESCI-Indexed).
7. **Damodharan D**, Dilipsingh J, Melvin Victor De Poures, Gopal K, Sathiyagnanam AP, Rajesh Kumar B, Mukilarasan N. (2019) "Effective utilization of waste plastic oil/n-hexanol in an off road, unmodified DI diesel engine and evaluating its performance, emission and combustion characteristics". *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects (T&F)*. Published online 16/April/2019. <https://doi.org/10.1080/15567036.2019.1604853> (Impact Factor: 0.894); (Citation: 1).
8. Melvin Victor De Poures, Sathiyagnanam AP, Rana D, Rajesh Kumar B, Saravanan S, **Damodharan D.** (2019) "Comparative account of the effects of two high carbon alcohols (C5 & C6) on combustion, performance and emission characteristics of a DI diesel engine". *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects (T&F)*. Published online 19/April/2019. <https://doi.org/10.1080/15567036.2019.1604888> (Impact Factor: 0.894).
9. Gopal K, Sathiyagnanam AP, Rajesh Kumar B, **Damodharan D**, Melvin Victor De Poures, Saravanan S, Rana D, Sethuramasamyraja B, (2019). "Prediction and optimization of engine characteristics of a DI diesel engine fueled with cyclo-hexanol/diesel blends". *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects (T&F)*. Published online 30/April/2019. <https://doi.org/10.1080/15567036.2019.1607923> (Impact Factor: 0.894).
10. **Damodharan D**, Rajesh Kumar B, Gopal K, Melvin Victor De Poures, Sethuramasamyraja B. "Utilization of waste plastic oil in diesel engines – A Review". *Reviews in Environmental Science and Bio/Technology (Springer)*. Vol 18, issue 4, page 681-697. <https://doi.org/10.1007/s11157-019-09516-x> (Impact Factor: 4.938).
11. **Damodharan Dillikannan**, Melvin Victor De Poures, Gopal Kaliyaperumal, Sathiyagnanam AP, Rajesh Kumar Babu. "Effective utilization of waste plastic oil/n-hexanol in an off-road, unmodified DI diesel engine and evaluating its performance, emission, and combustion characteristics". *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects (Taylor & Francis)*. Vol 42, issue 11, page 1375-1390.
12. Kaliyaperumal Gopal, AP Sathiyagnanam, B Rajesh Kumar, **D Damodharan**, Melvin Victor De Poures, S Saravanan, D Rana, Balaji Sethuramasamyraja. "Prediction and optimization of engine characteristics of a DI diesel engine fueled with cyclohexanol/diesel blends". *Energy*

*Sources, Part A: Recovery, Utilization, and Environmental Effects*(Taylor & Francis). Vol 42, issue 16, page 2006-2017.

13. Melvin Victor De Poures, K Gopal, AP Sathiyagnanam, B Rajesh Kumar, D Rana, S Saravanan, **D Damodharan**. "Comparative account of the effects of two high carbon alcohols (C5 & C6) on combustion, performance and emission characteristics of a DI diesel engine". *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects* (Taylor & Francis). Vol 42, issue 14, page 1772-1784.

14. S Rajasekaran, **D Damodharan**, K Gopal, B Rajesh Kumar, Melvin Victor De Poures. "Collective influence of 1-decanol addition, injection pressure and EGR on diesel engine characteristics fueled with diesel/LDPE oil blends". *Fuel* (Elsevier). Vol 277, page 118166

15. A Rajesh, K Gopal, B Rajesh Kumar, AP Sathiyagnanam, **D Damodharan**. "Effect of anisole addition to waste cooking oil methyl ester on combustion, emission and performance characteristics of a DI diesel engine without any modifications". *Fuel* (Elsevier). Vol 278, page 118315

16. Kulandaivel Duraisamy, Rahamathullah Ismailgani, Sathiyagnanam Amudhavalli Paramasivam, Gopal Kaliyaperumal, **Damodharan Dillikannan**. "Emission profiling of a common rail direct injection diesel engine fueled with hydrocarbon fuel extracted from waste high density polyethylene as a partial replacement for diesel with some modifications". *Energy & Environment* (SAGE Publications).

17. Rajesh Adhinarayanan, Aravindh Ramakrishnan, Gopal Kaliyaperumal, Melvin Víctor De Poures, Rajesh Kumar Babu, **Damodharan Dillikannan**. "Comparative analysis on the effect of 1-decanol and di-n-butyl ether as additive with diesel/LDPE blends in compression ignition engine". *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects* (Taylor & Francis). page 1-18

18. Karthikeyan Subramanian, AP Sathiyagnanam, **D Damodharan**, N Sivashanmugam. "Artificial Neural Network based prediction of a direct injected diesel engine performance and emission characteristics powered with biodiesel". *Materials Today: Proceedings* (Elsevier).

19. Rajasekaran Shanmugam, **Damodharan Dillikannan**, Gopal Kaliyaperumal, Melvin Victor De Poures, Rajesh Kumar Babu. "A comprehensive study on the effects of 1-decanol, compression ratio and exhaust gas recirculation on diesel engine characteristics powered with low density polyethylene oil". *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects* (Taylor & Francis). page 1-18.

20. D Kulandaivel, IG Rahamathullah, AP Sathiyagnanam, K Gopal, **D Damodharan**. "Effect of retarded injection timing and EGR on performance, combustion and emission characteristics of a CRDi diesel engine fueled with WHDPE oil/diesel blends". *Fuel* (Elsevier). Vol 278, page 118304.

#### **Communicated Articles:**

11. Kulandaivel D, Rahamathullah I G, Sathiyagnanam A P, Gopal K, Melvin Victor De Poures, **Damodharan D** (Revised MS under review). "Emission profiling of CRDi diesel engine fueled

with hydrocarbon fuel extracted from waste HDPE as a partial replacement for diesel with some modifications”. *Energy and Environment (Sage)*. (**Impact Factor: 1.092**); (SSCI-Indexed).