CHAPTER 7

CONCLUSION AND FUTURE SCOPE

7.1 CONCLUSIONS

1. Optimized conditions for production of biodiesel from meat waste and jatropha oil is identified. The best conditions are 9 molar ratios and 65 °C for animal fat and 6 molar ratios and 65 °C for jatropha Oil
2. CRDI engine is tested with Diesel blended with biofuels, prepared from three sources, meat waste, jatropha oil and pyrolytic oil-It is found that in all cases, B30 is the blend at which best performance and minimum emission is obtained
3. For biofuel blends, NOₓ emissions is high for all the experimental conditions comparing with diesel
4. Exhaust temperatures is also high while using bio fuels
5. CO₂ emission comparatively high compared with diesel
6. CO emission was less in all cases of blends compared to that of Diesel
7. Among the biofuels tested, tyre oil is having best performance but NOₓ emission is high
8. While comparing the performances, Jatropha biodiesel was just below tyre oil and animal fat biodiesel have the lowest performance
9. All biofuels have better performance comparing with diesel
7.2. FUTURE SCOPE

- The CRDI engine may be substituted with 100% biodiesel after overcoming the present problem of rough running with higher blends
- The p-Θ diagram may be studied for better understanding on combustion
- Engine tribological studies may be conducted to understand the impact of biofuels on the cylinder, piston, valves etc