SRINIVAS UNIVERSITY

Mangalore-575001, Karnataka (India)

Srinivas Research Centre for Manufacturing Engineering and Technology

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Mr. RAGHAVENDRA E H

DEVELOPMENT OF ELECTRONIC ENGINE –BSAA4D105 AND STUDY OF TECHNOLOGIES FROM BS-III TO BS-IV NORMS (B.E.M.L)

The engine speed controller used in heavy duty/off road conventional diesel engine by the adaption of mechanical/electronic governor. In order to control engine speed, the governor controls the amount of fuel using fuel rack. In mechanical type the flyweights present in centrifugal governor are used to control the fuel rack which in turn controls the plunger present in fuel injection pump to control the fuel input to the engine according to the speed of the engine or as per the engine demand. In electronic governor the fuel rack is connected to throttle actuator lever and driven from ECU in electronic governor. We in this project have tried to retrofit mechanical governor to electronic governor to obtain smoother and better performance of engine. The other part of the project is about the development of the same engine to BS-IV specification where we study the options like In cylinder components design changes, Injection Nozzles parameter changes, Ceramic In-Cylinder Coatings, Variable geometry turbo charging and Development of Exhaust Gas Recirculation to reduce the

pollutants that are liberated by the engine and the future technologies related to them in development of BS-IV engine

List of conference and journal publication:

1. "RETROFICATION OF MECHANICAL SPEED GOVERNOR WITH ELECTRONIC SPEED GOVERNOR FOR HEAVY DUTY DIESEL ENGINES". *Mr. Raghavendra E H Dr. S. Kumarappa*. International Journal for Research in Applied Science & Engineering Technology (IJRASET). Volume 3 Issue IX, September 2015

Research Centre Contact details

Co-ordinator: **Mr. Raghavendra E H**
Mobile: 9535790813
Email: raghavendraeh78gmail.com