DIAGNOSIS AND MODELLING THE INTERNAL COMBUSTION ENGINE FOR CONTROL: REVIEW AND FUTURE TRENDS

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ABSTRACT
Constraints change as pollutant standards or embedded diagnosis demands require improvements in model accuracy and their suitability for control algorithm synthesis. From thermodynamic mathematical modelling to non-parametric models, a wide range of techniques has been investigated for the last thirty years involving both physicists and control engineers. The purpose of this paper is to give an overview of current modeling techniques, oriented control analysis and design for compression ignition engines. Comparison of various engine models exhibits the trend to include more physical knowledge inside model-based control design.

REFERENCES