



**iGP: Autonomous Car**

**iGP Module: Advances in Internal Combustion Engine Performance**

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The performance of the internal combustion engine is crucial in the assessment of vehicle dynamics and its reliability. This year (2016/2017), ASURT is planning to improve the performance of the engine in two different ways:

1. Design and implementation of variable-length air intake system (VLS) of the engine to optimize power and torque across the range of engine speed.
2. Design of variable-valve timing system (VVT). In this process, the valve lift is altered to improve engine performance, fuel economy and emissions at variable loads.

This project is considered a step-forward improvement of the engine dynamics which in return improve the overall vehicle dynamics.