The PLC Based Design for the Air Compressor Control Process

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***Abstract*— Oil and Gas industries use the air compressor to control a process and generate the compressed air utilized to make combustion. Technically speaking, generally in industry two types of compressors are used to generate the compressed air that are known as: The dynamic compressor and the positive displacement. The present study aims at controlling the compressor inlet guide vane angel or IVG, the blow off valve and the compressor engine by the controller; such that aims of controlling the pressure are achieved at the suitable point. In a laboratory design, centrifugal compressors with the IGV angel and the blow off valve are assessed by the step 7-300 Siemens PLC controllers.**

***Index Terms*: inlet guide vane, centrifugal, axial, positive displacement, dynamic, reciprocating, rotary, reservoir, flow, stall, rotary stall, surge, choke, stonewall, head, blow off valve, critically damped, dead zone.**

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