Abstract

With the rapid and vertiginous development of technology of hydraulic automation systems is observed in our current era, an ongoing effort to introduce engineering technology, automated solutions in everyday life with an emphasis on the field of hydraulic automation systems. The systems sector develops increasingly their fields of application, whether simple or hydraulic circuits for modern hydraulic automation circuits. In the systems with automated processes, the systems sector with the help of have only recently programmable logic controller has begun to make their appearance. In this dissertation, the structure of a hydraulic circuit which has the purpose control and observation of the hydraulic system with the aid of a P.L.C. Moreover, it describes the properties of the hydraulic system, its structural components and the detailed functional description of Programmable Logic Controller. Finally, the work ends with the recording of the findings of the use of this integrated hydraulic circuit.

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**Index Terms**

Computer Science | Information Systems

**Keywords**

Programming language, hydraulic systems, hydraulic cylinders, hydraulic valves, hydraulic pumps, hydraulic actuators, programmable logic controller