

DESIGN AND FABRICATION OF AUTOMATED VALVE

(SPONSORED BY K.S.C.S.T)

*A project Report Submitted in partial fulfillment of the requirement for the
Award of the Degree of Bachelor of Engineering in Mechanical
Engineering of the Visvesvaraya Technological University, Belgaum*

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2011-2012

ABSTRACT

The concept behind an automated valve is to enhance the technology in the applications involving effective supply of water. The supply of water from a source to various branches on time basis is done manually, by operating mechanical valves in many fields of application like the plantation of coconut trees, the supply of water to domestic housing from PWD, the supply of water in society to various apartments/blocks etc. The above mentioned applications are fulfilled either by a team of humans or a single person who is in charge of opening and closing of the valve at particular time. This job is tedious, boring, time as well as energy consuming; it may so happen that the person in charge would be busy in some other work, resulting in extra supply of water or wastage of water in some applications. Hence we design an automated valve which would be programmed to operate at the required time without any human support. It involves the design of a mechanism which would be driven by a motor to operate the valve and programmed as per the schedule. The motor would be either electrically or solar driven, whose function would be just to open and close the valve for a particular time. The valve mechanism will be so designed that as it opens up the gate, the pump is switched on and vice-versa, thereby completing automation in any field of application.