"SIMULATION OF PRESSURE REDUCING VALVE USING BOND GRAPH TECHNIQUE"

A Project Report submitted in the partial fulfillment of the requirements for the award of the degree of Engineering in Industrial and Production Engineering of the Visvesvaraya Technological University, Belgaum.

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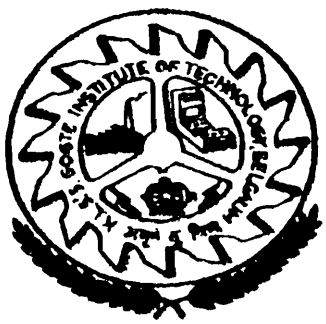

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ABSTRACT

In the project undertaken and in depth study was made on the Pressure Reducing Valve manufactured locally . The valve under consideration was modeled to study its dynamic characteristics , using Bond Graph Technique.

Firstly , a considerable amount of time was spent on understanding of Bond graph technique and to have a working knowledge of COSMO-KGP software. We have tried to model the system as a comprehensively as possible to understand and analyze Its dynamic behavior . During the course of modeling of the valve ,the following were taken in account; spring forces, mass of spool compressibility of oil ,damping between the valve sleeve and the spool, resistance of the pilot line.

In this report bond graph theory and its applications are discussed in brief.
Results obtained and scope for further improvements are given in the end.