

Abstract

In industrials sector, many engineering applications used the intelligent techniques to savings on maintenance costs. In this work, we discuss a new intelligent measurement technique of gas flow, in industrials compressions systems, using a sonic nozzle sensor, and we examine the performance of the calibration and measurement of gas flow used in the transport of high volume of natural gas pipeline system. We propose the development of this approach and we discuss the feasibility and validity of this intelligent sensor in real plant. This work demonstrates that sonic nozzles can be operated successfully as a prover for natural gas and for the critical flow in nozzles for unprocessed natural gas