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## **DETECTION OF ACCIDENTAL LEAKS IN NATURAL GAS MAIN PIPELINES BY FUZZY LOGIC TOOLS**

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### **Abstract**

Pipeline crack-like defects are detected and localized through the monitoring of the transport parameters of the transmission network. Under SCADA monitoring, accidental gas loss is reduced and the negative environmental impact of the hydrocarbons is avoided. This paper presents a method for the localization of accidental gas leaks, the pressure gradient method combined with a fuzzy analysis method, which operates simultaneously both numerical data and lexical arguments in order to accurately localize the damage in the field.

*Key words:* accidental loss, flow rate, fuzzy, natural gas, pressure gradient

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