



INFORMS Annual Meeting
November 4-7, 2018

Session TC41 - Participatory Modeling

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3 - A Participatory Model for Improving Safety Culture in Oil and Gas Operations

 November 6, 2018, 12:45 PM - 1:05 PM

 North Bldg 226C

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Abstract

Participatory modeling often occurs when the system under study is poorly understood and quantified. A case in point is safety culture, which describes the values, routines, and work processes that allow an organization to prevent disasters by avoiding and quickly bouncing back from mistakes. It is particularly relevant in oil and gas industry, where initially small errors can have devastating impacts. Relevant quantitative data on safety culture is virtually non-existent and practitioners have to rely on research findings in other context and their own observations: our work uses thematic analysis, t-coefficient, and Fuzzy Cognitive Mapping to create a model based on these knowledge sources.