Accepted Manuscript

Optimal Pipe Inspection Paths Considering Inspection Tool Limitations

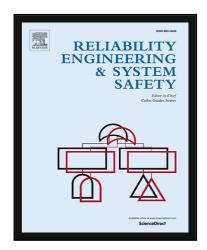
Thomas Ying-Jeh Chen, Seth David Guikema, Craig Michael Daly

PII: S0951-8320(17)31447-3

DOI: https://doi.org/10.1016/j.ress.2018.09.019

Reference: RESS 6270

To appear in: Reliability Engineering and System Safety



Please cite this article as: Thomas Ying-Jeh Chen, Seth David Guikema, Craig Michael Daly, Optimal Pipe Inspection Paths Considering Inspection Tool Limitations, *Reliability Engineering and System Safety* (2018), doi: https://doi.org/10.1016/j.ress.2018.09.019

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Highlights

- Operational and budget limitations must be considered when planning for robotic in-pipe
- inspections.
- A general optimization formulation is presented for this problem, and three heuristics are
- tested.
- In smaller networks, the selected path is less sensitive to the choice of solution method.
- In larger and more realistic distribution systems, the Evolutionary Program performs best.
- The optimization framework presented can be extended to model technology specific
- · considerations.



Download English Version:

https://daneshyari.com/en/article/11027777

Download Persian Version:

https://daneshyari.com/article/11027777

<u>Daneshyari.com</u>