

# Hugh R. Medal

## Curriculum Vitae

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## Education and qualifications

2006	B.Sc.(Hons)	Industrial Engineering	North Dakota State University
2008	M.S.	Industrial Engineering	University of Arkansas
2012	Ph.D.	Industrial Engineering	University of Arkansas

## Employment history

2018– **Assistant Professor**, Department of Industrial & Systems Engineering, University of Tennessee  
2012–2018 **Assistant Professor**, Department of Industrial & Systems Engineering, Mississippi State University

## Professional Honors and Awards

2018 Article selected as Best Application Paper in the IISE Transactions Focus Issue  
2016 Article featured in Research Highlights section of IISE Magazine

## Recent Grants

Recent external research grants over \$200,000 are listed below.

2015–2016	Medal, H.R. (PI), Bian, L., Hu, M., Marufuzzaman, M., Zhang, S.. “Large-Scale graph analytics for cyber network vulnerability analysis”. <i>Funding from Pacific Northwest National Laboratory</i>	\$6e+05
2016–2017	Medal, H.R. (PI), Bian, L., Zhang, S.. “Graph Simulation for Large-Scale NetFlow Analysis”. <i>Funding from Pacific Northwest National Laboratory</i>	\$4e+05
2016–2019	King, R., Jaradat, R. Medal, H.R. (Co-PI) Walden, C.. “Computational Prototyping and Proving Ground Environment”. <i>Funding from U.S. Army Engineering Research Development Center</i>	\$2,432,550

## Recent Relevant Publications

1. [Rashidi, E.](#), [Hoskins, A.](#), and [Medal, H.](#) (2018). Mitigating a pyro-terror attack using fuel management. *IISE Transactions* **50**(6), 499–511.
2. [Rashidi, E.](#), [Medal, H.](#), and [Hoskins, A.](#) (2018). An attacker-defender model for analyzing the vulnerability of initial attack in wildfire suppression. *Naval Research Logistics* **65**(2), 120–134.
3. [Vadlamani, S.](#), [Medal, H.](#), [B Eksioglu,](#) and [Nandi, A. K.](#) (2018). A mixed-integer programming approach for optimizing flow jamming attacks. *Computers and Operations Research* **95**, 83–96.
4. [Bhuiyan, T. H.](#), [Moseley, M.](#), [Medal, H.](#), [E Rashidi,](#) and [R Grala](#) (2019). A stochastic programming model with endogenous uncertainty for incentivizing fuel reduction treatment under uncertain landowner behavior. *European Journal of Operational Research* **277**(2), 699–718.
5. [David Schweitzer](#) and [Medal, H.](#) (2019). Wireless LAN transmitter location under the threat of jamming attacks. *Computers and Operations Research* **106**, 14–27.
6. [Hoskins, A.](#) and [Medal, H.](#) (2019). Stochastic Programming Solution for Placement of Satellite Ground Stations. *Annals of Operations Research*, 1–22.
7. [Huff, J. D.](#), [Leonard, W.](#), [B Smith,](#) [K Griendling,](#) and [Medal, H.](#) (2019). NATO Human View Executable Architectures for Critical Infrastructure Analysis. *Engineering Management Journal*. to appear.
8. [Huff, J. D.](#), [Medal, H.](#), and [KA Griendling](#) (2019). A Model-Based Systems Engineering Approach to Critical Infrastructure Vulnerability Assessment and Decision Analysis. *Systems Engineering* **22**(2), 114–133.
9. [Li, X.](#), [Medal, H.](#), and [X Qu](#) (2019). Connected Infrastructure Network Design Under Additive Service Utilities. *Transportation Research Part B* **120**, 99–124.
10. [Bhuiyan, T. H.](#) and [Medal, H.](#) (2020). Network Design and Facility Protection when the Effect of Protection is Uncertain. *European Journal of Operational Research*.
11. [Mike Sherwin,](#) [Medal, H.](#), [C Mackenzie,](#) and [Kennedy J. Brown](#) (2020). An optimized resource allocation approach to identify and mitigate supply chain risks using fault-tree analysis. *IISE Transactions* **52**(2), 236–254.