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Education:

PhD: Lehigh University, PA, US MS: Zhejiang University, China BS: Zhejiang University

General Areas of Expertise:

sustainability, optimization, logistics and supply chain management, transportation, economic and life-cycle analysis, data analytics and advanced manufacturing

Short Bio:

Dr. Mingzhou Jin is the Professor and Associate Head of the Department of Industrial and Systems Engineering at the University of Tennessee at Knoxville (UTK). He has done more than forty funded projects in the areas of sustainability, optimization, logistics and supply chain management, transportation, economic and life-cycle analysis, data analytics and advanced manufacturing with the total funding for more than $6M. As an affiliated researcher, he has been working closely with various research groups at the Oak Ridge National lab, such as climate change groups, manufacturing, and transportation analysis,. He is serving as the associate editor for the Journal of Cleaner Production and serving in the editorial boards of the Engineering Economists and the International Journal of Production Economics. Over the last ten years, he has published more than forty papers in SCI journals. Dr. Jin won 2017 Dr. Kenneth E. Kirby Endowed Faculty Award, 2016 ISERC Conference's Best Paper award for the Engineering Economic Analysis Track, the 2016 College of Engineering Outstanding Advisor Award, 2015 the College of Engineering Teaching Fellow award, and 2014 Annual IIE Award for Excellence in the Teaching of Logistics and Supply Chain.

Five Representative Publications:

1. W. Liu, J. Zhang, M. Jin*, S. Liu, X. Chang, N. Xie, and Y. Wang "Key Indices of the Remanufacturing Industry in China Using a Combined Method of Grey Incidence Analysis and Grey Clustering," Journal of Cleaner Production, 168, 1348-1357, 2017.2017.
2. W. Li, H. Wu, M. Jin*, M. Lai, "Two-stage Remanufcturing Decision Makings Considering Product Life Cycle and Consumer Perception," Journal of Cleaner Production, 161, 581-590, 2017.
3. M. Jin*, R. Tang, Y. Ji, F. Liu, L. Gao, and D. Huisingh, "Impact of Advanced Manufacturing on Sustainability," Journal of Cleaner Production, 161, 69-74, 2017.
4. K. He, R. Tang, and M. Jin*, "Pareto Fronts of Machining Parameters for Trade-off among Energy Consumption, Cutting Force and Processing Time," International Journal of Production Economics, 185, 113-127, 2017.
5. J. Mao*, A. Ribes, B. Yan, X. Shi, R. P. Thornton, R. Séférian, P. Ciais, R. B. Myneni,, H. Douville, S. Piao, Z. Zhu, R. E. Dickson, Y. Dai, D. M. Ricciuto, M. Jin, F. M. Hoffman, B. Wang, M. Huang, and X. Lian, "Human-induced greening of the northern extratropical land surface," Nature Climate Change, 27 June 2016.

FEWSTERN Symposium 2017 Presentation Title and Abstract:

Detection and Attribution for US Runoff

Runoff in the United States is changing, and this study finds that the measured change is dependent on the spatial region and temporal metric studied. Specifically, annual total runoff is increasing in the US, but the increase is not consistent spatially. The eastern two-thirds of the US is getting wetter while the western one-third is drying at a faster rate. Trends for seasonal monthly means also differ. For the east, north, south, west, and US as a whole, the magnitude of the observational trend is greatest for SON, MAM, DJF, DJF, and SON, respectively. Detection and attribution analysis using USGS WaterWatch observations aggregated to a 0.5° resolution along with MsTMIP model simulations for ALL, climate, CO2, nitrogen deposition, and land use and land cover change was completed to determine the primary driver(s) of the changes. Results for CO2, nitrogen deposition, and land use and land cover change are not consistent enough regionally or seasonally to draw any major conclusions. Climate is detected for all cases which meet the regression assumptions, and can be attributed for southern JJA and southern and western SON. However, the Climate and ALL simulations are consistently underestimated due to the CRUNCEP precipitation driver used in MsTMIP models. Better simulations would most likely lead to climate being the attributable cause for changing runoff.