

Evolution and Application of Cost and Schedule Risk Management on Complex Projects

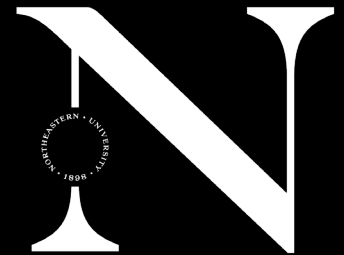
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Abstract: Design and construction of projects is a complex endeavor that requires the coordination of a multitude of human, physical, and natural resources. The technical design and construction complexities are frequently outweighed by the uncertainties and risks with the social, financial, and political aspects of the projects. To address these risks and uncertainties, project participants have turned to a series of cost and schedule risk management tools over the past 50 years. This talk summarizes the evolution of probabilistic cost estimating and scheduling tools. It also provides examples of applications on complex projects from the US Department of Energy, the US Federal Highway Administration/Washington State Department of Transportation, the Panama Canal Authority, and the international ITER fusion generator. The talk will conclude with a discussion of the remaining cost and schedule risk management challenges, which inhibit project participants from achieving their project performance goals.

Bio: Keith R. Molenaar is dean of the College of Engineering and Applied Science and the K. Stanton Lewis Professor at the University of Colorado Boulder (CU Boulder). As dean, he leads more than 9,000 faculty, staff, and students in meeting the mission for the state's flagship engineering college. His research and teaching focus on the application of emerging technologies and management practices to engineering design and construction, project delivery, and risk management. He is the primary author of more than 250 technical reports and articles. Molenaar holds a Bachelor of Science degree in Architectural Engineering and Master of Science and Doctoral degrees in Civil Engineering from CU Boulder. Before returning to the CU Boulder, he was a faculty member at the Georgia Institute of Technology. He was inducted into the Pan-American Academy of Engineering in 2012, the National Academy of Construction in 2017, and named as a Fellow of the Design-Build Institute of America in 2019.



168 SN
Oct 17, 2024
3pm - 4pm EST
4pm: Reception



This event will be followed by a reception for faculty, staff, and grad students in 400SN