

# MBSE Three Ways: A Trio of Studies to Satisfy Any Appetite

Thursday Sept 9, 2021  
7:00 – 8:30 PM CDT

A FREE Virtual Event  
Registration Required



**Casey Medina**  
Caltech Center for Technology  
and Management Education



**Caltech**

**Casey Medina** is currently President of Studio SE, Ltd., a systems engineering design and consulting firm and instructor for the Caltech Center for Technology and Management Education. He has worked in quality and systems engineering roles with JustRight Surgical, LLC, Terumo BCT, Covidien (now Medtronic), and Zed, Inc. He has developed products in the areas of automated stem cell growth, patient monitoring, pulse-oximetry, blood collections, electro-surgery, and therapeutics. He holds 12 patents for medical devices and has another six patent applications awaiting approval. Prior to designing medical devices, he led the creative development team for Zed, Inc. which produced architectural and interior design products.

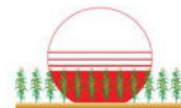
Mr. Medina is a lecturer at the Ritchie School of Engineering at the University of Denver and the School of Engineering at the University of Colorado and has worked with teams at Dublin City University. He has trained hundreds of individuals on best practices in requirements engineering, model-based systems engineering (MBSE), system architecture, human factors design, verification and validation, and risk management. Mr. Medina has a BS in mechanical engineering from the University of Denver.

**Presentation Abstract.** Systems Engineers possess a unique set of tools that allow us to characterize our world to gain insight into relationships. These insights are very powerful in understanding and improving systems – whether those systems are natural, man-made, or social. Prepare for a feast of epic proportions crafted from three case studies that showcase the power of MBSE in characterizing and improving our lives. We will begin with an example of how we can effectively manage obsolescence in an engineered system. Next, we will evaluate the design of a usability engineering development process. Finally, we'll see how MBSE was used to characterize the cycle of homelessness and how this characterization can lead to better implementation of relief efforts for people experiencing homelessness.



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Sean Mahrt, Program Director,  
INCOSE Heartland Chapter



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