# Yvonne Bijan, Ph.D

## Contact Details

Yvonne Bijan, PhD
LM Technical Fellow
CSEP, CEA, OCSMP-IV (SysML-Advanced)
Yvonne.bijan@lmco.com
817-655-6713

## Model Based Systems Engineering Bootcamp

UTRGV

## Personal Summary

Yvonne Bijan has worked for Lockheed Martin for twenty years and has a Doctor of Philosophy in System Engineering from Southern Methodist University. Dr. Bijan is a Lockheed Martin Fellow and has worked on numerous aeronautics and space programs including F-35 and Space Based Infrared System. She is a Certified Enterprise Architect, Certified Systems Engineering Professional, Certified SysML Model Builder Advanced, SAFe Agilist, and holds a QFD Greenbelt. She has a B.S. in Physics with a minor in Math and an M.S. in Computer Science with a concentration in Software Engineering. Dr. Bijan was the President of the North Texas Chapter of INCOSE for two years and is now the Corporate Advisory Board representative for Lockheed Martin.

## Application of Functional Analysis using an MBSE Approach to Transform Customer Requirements

The theory of Systems Engineering says we start at the top with customer needs, define requirements for the top-level system in our product hierarchy, then decompose those requirements into the subsystem requirements at the next level down in the hierarchy- or does it? Some believe architecture work can begin once the requirements work is completed at any given level, but is that the only time that the tools and methods for architecture are useful? Have you ever been on a program where the practice of Systems Engineering aligns with the theory of Systems Engineering 100 percent? How do you cope with the deviations from the theory? What happens when the original requirement at the top is not an appropriate one that people should start with?

This presentation will have a brief overview of systems engineering and then walk through an example of a top-level requirement handed down from a customer to a program. We will use functional analysis to improve the requirement and answer the preceding questions.