



# SYSTEMS ENGINEERING SUMMIT

11<sup>th</sup> - 13<sup>th</sup> April 2018  
Hotel Shangri-La, Bangalore, India



## SYSTEMS ENGINEERING TRAINING – 11<sup>th</sup> & 12<sup>th</sup> April 2018

### TENTATIVE AGENDA

Day 1 (11 <sup>th</sup> April)	Topic	Remarks
07:30 - 08:00 AM	Registration	
08:00 - 08:30 AM	Inauguration & Context Setting	
08:30 - 09:30 AM	Introduction to Systems Engineering	What is a system   Systems engineering method   Why do it?   Key benefits   Systems engineering V-model   Describe the program and design task
09:30 - 10:30 AM	Systems Engineering Management	Developing the systems engineering management plan   Systems engineering work break down structure   Allocating the systems engineering resources
10:30 - 10:40 AM	Tea/Coffee Break	
10:40 - 11:30 AM	Systems Engineering Management	Systems engineering reviews   Developing the systems engineering schedule   Sub-contractor management   Developing the system engineering program cost estimate
11:30 - 12:30 PM	Requirements & Configuration Management	Requirements management   Requirement types   Requirement attributes   Writing good requirements   Setting up the requirements management database   Configuration management   Functional baselines   Allocated baselines   Product baselines   Configuration Items   Change control   Managing change requests   Status accounting and reports
12:30 - 01:30 PM	Lunch	
01:30 - 02:30 PM	Technical Risk Management	Technical risk management process   technical risk identification   technical risk assessment criteria   Technical risk assessment techniques   Shaping the engineering work program
02:30 - 03:30 PM	Non-functional Requirements	System characteristics   Reliability, Availability Maintainability   Failure mode effects and criticality analysis   Safety engineering   Human factors   Integrating non-functional analysis
03:30 - 03:40 PM	Tea/Coffee Break	
03:45 - 05:30 PM	Operational Analysis	Describing operational effects   Scenario development   Defining operational requirements   Capability analysis   Stakeholder engagement   How to capture requirements   Integrating operational views   System/acquisition boundaries



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Day 2	Topic	Remarks
08:00 - 08:30 AM	Reflections on previous day	
08:30 - 09:30 AM	Functional Analysis	Capability vs System   Developing the functional hierarchy   Defining system behaviour   Deriving functional requirements   Testing functional requirements
09:30 - 10:30 AM	Functional Analysis	Functional flow block diagrams (FFBD)   Establish the requirements traceability matrix   Writing good functional requirements
10:30 - 10:40 AM	Tea/Coffee Break	
10:40 - 11:30 AM	System Design & Synthesis	Developing the system breakdown structure   Allocating functional requirements   Design constraints   Interfaces definition and control
11:30 - 12:40 PM	System Design & Synthesis	Design alternatives and trade-offs   Assessment and analysis   Component selection
12:40 - 01:30 PM	Lunch	
01:30 - 02:30 PM	System Modeling Demonstration	Demonstration of how a system modelling can support the systems engineering process
02:30 - 03:30 PM	Verification & Validation	Designing the V&V program   Scoping the V&V program   Failure management   RAM testing   Developing the V&V program cost estimate
03:30 - 03:45 PM	Tea/Coffee Break	
03:45 - 05:30 PM	Common Problems in System Design	Why project fail?   Common problems in engineering of systems   Results of recent research into effective systems engineering