Press Release

The Systems Engineering Competency Assessment Guide is Published


For organizations, companies, and individual practitioners of systems engineering, this book is a one-stop resource for competency assessment. Whether as an individual measuring their own skills and experience or development needs, or as a manager characterizing the current or future needs of systems engineering capabilities within an organization, this book is your reference.

The book defines a set of 37 competency areas spanning the systems engineering discipline and provides extensive guidance on the evaluation of these competencies.

Readers will learn how to tailor the contents to create a benchmark for proficiency levels within a competence area, to define a set of standardized terminology for competency indicators to promote like-for-like comparison, and how to provide typical non-domain-specific indicators of evidence which may be used to confirm experience in each competency.

Sample topics covered in the publication include:

- Competencies described along five proficiency levels: awareness, supervised practitioner, practitioner, lead practitioner, and expert;
- Numerous relevant indicators of knowledge, skills, abilities, and professional behaviors for each proficiency level;
- What an individual needs to know, or do, in order to be an effective Systems Engineer;
- How to leverage the book contents to develop training courses, educational curricula, position descriptions, and position performance evaluation criteria for system engineering positions.

Ian Presland (IET Fellow and INCOSE ESEP) has been involved with the framework since its inception in 2010 is the book’s primary editor and co-author. He says “I am a passionate advocate for the use of a competency-based approach in the characterization and assessment of Systems Engineers and SE capability. This book is the result of a global effort led by INCOSE over many years, and I am proud to have been a part of it.”

Clifford Whitcomb (Chair of the INCOSE Competency Working Group and INCOSE Fellow) has been involved with the framework and assessment guide since 2011 and is a book editor and co-author. He says “I have researched and developed several systems engineering competency frameworks over the years. I am very impressed at how well our internationally diverse group of authors, contributors, and reviewers provided their combined expertise to create a competency assessment guide that is a unique resource for individuals and organizations to use to structure and plan the development of their systems knowledge and skills.”

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Lori Zipes (Co-Chair of the INCOSE Competency Working Group and INCOSE ESEP) states, “A significant amount of work has gone into developing the Assessment Guide to enable individuals and organizations to gain maximum benefit from the INCOSE SE Competency Framework which was published by INCOSE in 2018. This book furthers the discipline of Systems Engineering globally.”

The Systems Engineering Competency Assessment Guide is available to buy via, Wiley’s online store, Amazon and Thriftybooks. Please note: INCOSE Members are entitled to a 25% discount and MUST purchase the book via Wiley to get the discount.

Suggested Social Media Posts

If you would like to share this news on your social media platforms, we encourage you to use the social media post below:


#SystemsEngineering #INCOSE

Notes to Editors:

About the International Council on Systems Engineering
The International Council on Systems Engineering (INCOSE) is a not-for-profit membership organization that promotes international collaboration in systems engineering practice, education, and research. INCOSE’s mission is to “address complex societal and technical challenges by enabling, promoting and advancing systems engineering and systems approaches.” Founded in 1990, INCOSE has more than 65 chapters and over 21,000 members and associates worldwide. For additional information about INCOSE visit www.incose.org.

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