Michael (Mike) Ryan, Ph.D.

Director, Capability Systems Centre, The University of New South Wales Canberra at the Australian Defence Force Academy

Birthplace: Brisbane, Australia
Current Residence: Canberra, Australia

Domain: Defence
Years in systems engineering: 34
Year joined INCOSE: 2010
Role in INCOSE: Chair of the Requirements Working Group

"The fourth edition of the SE Handbook and the updated ISO/IEC/IEEE 15288:2015 provide us for the first time with a firm basis for tackling the next major obstacle."

What is the most valuable benefit of being an INCOSE member?

INCOSE provides a wonderful opportunity to engage with an amazingly diverse community in a range of engineering disciplines, systems engineering philosophies and application domains. I particularly enjoy the annual International Workshop activities for their level of engagement and access to a *breadth of perspectives that cannot be obtained in any other way.*

What is your favorite course to teach at the university? Why?

My favorite course is in requirements engineering because, regardless of whether they are in a project management or systems engineering program, students are always staggered to see the lack of attention that is normally shown to such a crucial aspect of systems development.

Under your leadership, the INCOSE Requirements Working Group recently released a new "Guide for Writing Requirements." Please describe.

The "Guide for Writing Requirements" details how to express textual requirements in a form convenient for further analysis and implementation. It provides a consistent, comprehensive set of characteristics, rules and attributes. The Guide also provides examples for each rule to illustrate how the desirable characteristics are achieved by following that rule. It is essential reading for anyone interested in writing text-based requirements.

Where do you see INCOSE and systems engineering going in the next 25 years?

The fourth edition of the SE Handbook and the updated ISO/IEC/IEEE 15288:2015 provide us for the first time with a firm basis for tackling the next major obstacle. We have the practice, methodology and theory – we now need to develop the taxonomies, ontologies and epistemologies that would finally allow us to declare systems engineering as a profession.

AN INSIDE PERSPECTIVE