

The Graduate Reference Curriculum for Systems Engineering: Impact and Prospects

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Abstract. The Graduate Reference Curriculum for Systems Engineering (GRCSE) was released in December 2012. This workshop will present the organization and contents of GRCSE for school interested in understanding how it can be used to improve their program. It will include an exercise to measure existing programs, such as one's home institution or alma mater, against the GRCSE recommendations to determine how well aligned the programs are with GRCSE. Issues with implementation will be discussed, and audience feedback and participation will be encouraged. The use of GRCSE by employers as a benchmark for evaluating workforce development efforts, including but not limited to funded graduate education, will also be discussed. GRCSE will be revised in 2015, and that process and opportunities for participation will be explained.

Biography

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Dr. Tim Ferris currently works at the University of South Australia where he holds the role of Associate Director Teaching and Learning in the Defence and Systems Institute. In this role he is responsible for all of the teaching programs of DASI, which are in the areas of systems engineering and test and evaluation. He has 11 years' experience in teaching systems engineering, and a total of 21 years' experience within the University. Prior to his university career he worked for the Electricity Trust of South Australia, designing power lines, and a small bore water pumping equipment manufacturing and service company, designing various pieces of water pumping machinery. He was the lead author of the Graduate Reference Curriculum for Systems Engineering, GRCSE, which was released in December 2012. He is the INCOSE Associate Director Academic Research, which has responsibilities related to the leadership of research activities within INCOSE. He holds the degrees BEHons, BTh, BLittHons, GradCertEd, and PhD from University of Adelaide, Flinders University, Deakin University, Queensland University of Technology and University of South Australia, respectively.

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Mr. Rick Adcock has 20 years experience in defence, working in industry, consultancy and academia. He joined Cranfield University at the Defence Academy of the UK in 2000 to help set up a Systems Engineering MSc to support MoD acquisition reforms. He is current Head of the Centre for Systems Engineering, at the Defence Academy College of Management and Technology (DA-CMT). He chairs a Masters in Systems Engineering for Defence Capability, and is responsible for a range of other courses covering Awareness through to Practitioner and Expert level competencies in Systems Engineering. He has done research and published on Systems Engineering competencies, Network Enabled Capability (NEC), Enterprise Architecting and Model Based Systems Engineering (MBSE). He is currently engaged in doctoral research on Systems Engineering Competencies and Education and is working closely with the UK MoD Systems Engineering development partner on Systems Engineering competencies and skill assessment for the UK MoD Engineering Strategy. He has been a member of INCOSE for over 15 years and is INCOSE Associate Director for education. He was a lead author on the BKCASE Project (www.BKCASE.org).