

## Emma Sparks, Ph.D.

Head of the Centre for Systems Engineering Centre for Systems Engineering, Cranfield University, Cranfield Defence and Security, Shrivenham

Place of Birth: Westminster, London, England, UK Current Residence: Cotswolds, England, UK

"So much of success or failure is driven by the organizations people work for, their workplace culture and their processes."

Domain: Defence and security Years in systems engineering: 12 Year joined INCOSE: 2003

Roles in INCOSE: Academic Council representative for Cranfield University,

Corporate Advisory Board representative

In one sentence, how would you describe INCOSE to someone who had never heard about the organization?

INCOSE provides systems engineers a platform from which they can share, create and further the practice of systems engineering.

## How has systems engineering changed over the past 25 years?

The realization of the role of people as well as process and technology, and the diversity of where systems engineering theory and practice can be applied; it really does pervade all areas (art, science, engineering, management, etc.). That is what makes it such an exciting discipline to be involved in.

## Can you briefly describe Human Factor Integration (HFI)? What growth have you seen in your career in HFI?

HFI is a management process for integrating human factors into the systems engineering process. It involves the identification and trade-off of human-related issues within the wider systems context, using a number of domains to encourage breadth of consideration.

HFI is part of my wider interests in human capability and human systems engineering. In recent years there has been an increasing realization of the importance of people both as operators and maintainers of systems, but also as those who design, build and acquire systems. So much of success or failure is driven by the organizations people work for, their workplace culture and their processes.