



### **Tina P. Srivastava, Ph.D.**

*Chief Engineer  
Raytheon*

Place of Birth: Dallas, Texas, USA  
Current Residence: Boston, Massachusetts, USA

Domain: Aerospace and Cyber Security  
Years in systems engineering: 10  
Year joined INCOSE: 2011  
Role in INCOSE: Secretary, INCOSE Board of Directors

**“One of INCOSE’s greatest strengths is its diversity of members spanning academia, industry and government.”**

#### **What do you think is the most valuable benefit of being an INCOSE member?**

INCOSE has been a valuable part of my professional life, from technical collaboration on specific engineering projects to a social and professional network of colleagues to debate today’s most pressing challenges.

#### **Where do you see systems engineering going in the next 25 years?**

Engineering systems today are highly complex and dynamic, with thousands of interconnections, which will eventually create unanticipated and undesirable technical hitches. Complex technology integration failures are difficult to anticipate.

In this sense, systems engineers need to be equipped with the latest research and best practices in their arsenal. Experienced engineering professionals can no longer adequately manage the complexity without the knowledge and access to the latest scientific research on the principles and the processes of architecting the “system” itself in terms of the subsystems, technology connections and overlapping components. Current research also includes methodologies for successful staged integration of the entire system after extensive validation testing.

#### **What are INCOSE’s greatest challenges and opportunities for the next 25 years?**

One of INCOSE’s greatest strengths is its diversity of members spanning academia, industry and government. INCOSE must continue to leverage this strength in its technical publications, in its influence in setting standards and regulations, as well as in its membership growth and recruiting.

INCOSE also offers a unique opportunity to understand technical challenges from the lenses of a wide array of industries. INCOSE must capitalize on the recent growth in membership from the biomedical, healthcare and automotive industries. We must learn from our newest members, understand their perspectives and incorporate their perspectives into our future vision for systems engineering.

AN INSIDE PERSPECTIVE