



INCOSE Spotlight on Gina Guillaume-Joseph, Ph.D.

Interviewed by Sandy Young, info@incose.org

Name: Gina Guillaume-Joseph, Ph.D.

Titles/Organizations: Systems Engineer and Project Lead at The MITRE Corporation and Adjunct Professor at The George Washington University School of Engineering and Applied Science, Worcester Polytechnic Institute and George Mason University

Place of Birth: Port-au-Prince, Haiti

Current Residence: Leesburg, Virginia, USA

Domains: Software development, requirements management, systems architecture, modeling and simulation, software testing, deployment and quality assurance

Studied in college: Computer science, information systems, systems engineering

Year joined INCOSE: 2013

Roles in INCOSE: INCOSE assistant director Northeast region; INCOSE assistant director, Standards Initiative; president emeritus and former vice president, INCOSE Washington Metro Area Chapter

Years in systems engineering: 10 years

1. What are your biggest challenges?

One of the challenges systems engineers face is that a problem could have multiple solution paths. We must perform analysis of the multiple alternatives to find the best one. Notice that I didn't say to find the optimum solution, as there is not usually an optimum solution because each one has to take into account the cost, schedule and performance quality. No project has unlimited cost funding or an indefinite amount of time. We have to carefully select the best solutions within the parameters set out up front by the stakeholders and users of the system.

On a more personal level, being a woman in a predominantly male profession has been challenging. However, I have surrounded myself with mentors who guide me and help me overcome some of those challenges. I am a member of INCOSE Empower Women Leaders in Systems Engineering. The members are both men and women who understand the challenges and strive to build mechanisms and support systems for women within INCOSE and inside their own organizations.

2. What are your goals for INCOSE's Standards Initiative?

As the associate director of Standards Initiatives, I work with a team of systems engineering experts in identifying, shaping and developing standards. Standards are very important for any industry, specifically, in engineering. They are strategic tools that set the guidelines to support different aspects of engineering to ensure that products and services are fit for use, safe, reliable and of high quality. As systems engineers, our ultimate goal is to guide a project, system or solution

through to a successful implementation using a core standard or set of standards assists in achieving that goal.

3. Do your daughters share your interest in STEM and STEM education?

I am raising three daughters, and they are “kid-founders” to a STEM club that two of my girlfriends and our children started. The club is “for kids completely run by kids.” My daughters all learned to code and build robots and now they are teaching other kids how to code, science experiments and build robots. From this club, my daughters are also learning leadership skills. They are honing their listening skills and their communication skills. They now understand that to succeed in any field they decide, coding skills as well as the softer leadership skills they are learning in the club will be a tremendous asset to them.