



## ETA KAPPA NU ASSOCIATION

*Electrical and Computer Engineering Honor Society*

### **Andrew D. Zeitlin**

Senior Principal Engineer  
MITRE Corporation/CAASD



#### **Career Synopsis**

Andrew Zeitlin is a Senior Principal Engineer at the non-profit MITRE Corporation/CAASD in McLean VA. He is widely known as a leading expert in aircraft collision avoidance systems, having led development of algorithms for the Traffic Alert and Collision Avoidance System (TCAS II) for over 30 years. He also leads the Sense & Avoid team on the standards committee for Unmanned Aircraft Systems (UAS). He received the BSEE from Univ. of Pennsylvania, MSEE from New York Univ., and D.Sc. from George

Washington Univ. In 2007 he received the AIAA John C. Ruth Digital Avionics Award.

#### **Career Highlights**

Most projects are long and often unsuccessful, so it was a great thrill to see TCAS certified and implemented in all airline aircraft. It's even better to know that it provides a great contributor to public safety. I like to say that our program's success is measured by collisions that didn't happen; there is no way to estimate their number. The work has often involved collaboration with international experts, and I've found this rewarding in travel and cultural enrichment as well as the technical aspects.

#### **Education and Career**

Engineers are taught methods to solve problems, but they also should realize they are being taught how to learn. I found that new areas open up over time and some come to dominate the profession. I began working prior to PC's and microprocessors, which are central to a lot of modern equipment. I have learned to enjoy writing and presenting my work in public, and students should try to do much more of that, as well as including some liberal arts and humanities in their studies.

#### **Advice to Engineering Graduates**

Your first assignments may be narrowly focused, but you should gradually widen your gaze to the big picture. Whether your passion remains entirely in engineering or includes business, law, medicine, or other fields, your engineering skills will remain a great asset.