

## **Brief Biographical Sketch**

### **Assistant Professor Demoz Gebre-Egziabher:**

Assistant Professor Demoz Gebre-Egziabher joined the Department of Aerospace Engineering and Mechanics faculty at the University of Minnesota in October of 2002. He received a Ph.D. from Stanford University in 2002, a M.S. from George Washington University in 1996, and his B.S. from University of Arizona in 1990. Gebre-Egziabher is a 2006-2008 McKnight Land-Grant Professor. This professorship is awarded to the University's most promising junior faculty.

Dr. Gebre-Egziabher directs the avionics laboratory and his research focuses on developing systems and algorithms for navigation, guidance and control of aerospace vehicles. A particular focus of his research is the application of estimation theory to the development of algorithms and design methodologies to optimally fuse the information from multiple sensors and systems. One of the challenges encountered when dealing with such problems for aerospace applications (where safety of life is of paramount importance) is being able to precisely quantify (in statistical terms) the level of reliability of the algorithms and systems. Examples of engineering application of his work are in the development of attitude determination systems for satellites, high accuracy navigation of aircraft and evaluating operations of small autonomous aerial vehicles in the national airspace system. Dr. Gebre-Egziabher advises the University's Minnesat program, a student-led project where students design and build a working satellite, from initial concept to a final working vehicle stage.

Dr. Gebre-Egziabher is a member of the Institute of Navigation (ION), American Institute of Aeronautics and Astronautics (AIAA), Institute of Electrical and Electronic Engineers (IEEE) and American Society of Mechanical Engineering (ASME). He is also a registered Professional Engineer and a licensed pilot with instrument rating.