Abstracts are due Aug 26th, 2016

AAS GN&C Conference
Feb 2 – Feb 8, 2017

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American Astronautical Society

40th Annual AAS Guidance, Navigation and Control Conference

The Rocky Mountain Section of the AAS is excited to invite you to the 40th Annual AAS Guidance, Navigation and Control Conference from February 2nd through February 8th, 2017. The unclassified conference begins on Friday evening (Feb 3rd). The conference will host topics covering the entire lifecycle of GN&C for spacecraft and sensors while reflecting some of the most relevant and current topics in the industry. In keeping with the desire to build the next generation of engineers, the conference will again host STEMscape – an outreach to over 100 local high school students and educators.

As always, Advances in GN&C will continue as an anchor session and will examine the current state-of-the-art and the future of GN&C. Building on the success of the 2016 conference, tutorial opportunities will be offered between sessions, and will be led by industry leaders covering a variety of "beyond the textbook" topics.

The space industry is changing with the introduction of lower cost launch opportunities, and the smaller satellites that enable ride sharing to space. The Advanced Propulsion for Space Systems session will cover the propulsion of launch vehicles and in-space vehicles, and the Small Satellite GN&C session will focus on the GN&C sensors and analysis for small spacecraft. The GN&C of Space Mining session will focus on the difficult problem of maneuvering around and contacting small bodies in the solar system.

As greater pointing accuracy is sought across a variety of terrestrial and orbital applications, our Precision Pointing session will look at the current state of the art in instrument, antenna, and spacecraft pointing solutions. The challenge of parts selection to enable the on-board computation and storage necessary to enable advanced GN&C processing for space missions will be addressed in a Space EEE Parts session.

In the interest of learning from others, the conference is excited to introduce two sessions for 2017 that aim to mix ideas between groups. The first is the GN&C Beyond the Space Industry session that solicits papers from, for example, the self-driving car, the robotics, and the UAV industries. The second is the European Technology Demonstration session that will focus on new technology being developed in Europe.

The conference will have sessions addressing our community's growing interest in Autonomous Rendezvous and Docking, Entry Descent and Landing, Control Structure Interaction, Space Environments, and Mars Aerial Vehicles. We will also have a session that looks back at the science enabled by the GN&C of recent missions.

Continuing our tradition of welcoming those new to the industry and based on the stellar presentations over the last four years, Student Innovations in GN&C will feature a student competition with scholarship prizes. After looking forward to the great emerging work of the students, we will do a retrospective of the GN&C pioneers of the 21st century. Wrapping up the conference will be Recent Experiences, a traditional session with candid revelations of the successes and failures, trials, and tribulations encountered by your colleagues in the space industry.

The conference will expand the Classified Sessions on Advances in GN&C and Recent Experiences at the beginning of the conference for participants who have proper clearances to start on Thursday morning.

Family events include the perennial favorite Technical Exhibits and buffet on Saturday night. Our diverse attendance and agenda offers interaction with industry, government, and academia personnel and state-of-the-art technology.

Abstracts are due by August 26, 2016. Paper and poster abstracts may be submitted on the GN&C Conference web site at http://www.aas-rocky-mountain-section.org/. The conference website also contains the full conference schedule as well as registration and lodging information.