

## **GSAW2006 Tutorial D:**

CCSDS Short Course

**Length:** Full Day

### **Overview:**

This is based on the short course that has been taught at the International Telemetry Conference for the past 8 years and at GSAW for the past 2 years. We have continued to update the course materials every year to include new topics and protocol advancements. The most recent updates include coverage of Internet Protocol in space, CCSDS File Delivery Protocol, and Space Link Extension (SLE) data delivery protocols and ground station management.

Avtec's CCSDS Short Course addresses the Consultative Committee for Space Data Systems (CCSDS) recommendations for packet telemetry and command systems. Topics include packet telemetry, telemetry channel coding, packet telecommand, and command operating procedure (COP-1). Case studies are presented exploring current CCSDS satellite and ground system architectures. The course also provides an overview of the newest CCSDS standard, including the Space Communications Protocol Standards (SCPS), Internet Protocol in Space, CCSDS File Delivery Protocol (CFDP), and Space Link Extensions (SLE).

**Instructors:** Mike Williams and Brian Safigan, Avtec Systems, Inc.

### **Biography:**

### **Who Should Attend:**

Technical persons interested in learning applications, use and formation of the principals of this international standard for telemetry protocols.