

## Asian American Engineer of the Year

2011 Award and Conference

February 25-26, 2011 Seattle

#### 2011 AAEOY Technical Conference I

Location: Hilton Seattle Airport and Conference Center, Seattle WA February 26, 2011, 12:30pm – 4:00pm Event is complimentary and open to the public.

# ENGINEERS

### Theme: Aviation: Lessons from the Past, Visions for the Future

#### **Session 1: Airplane Design for the Environment**

**Speaker: David Akiyama,** ecoDemonstrator Program Manager, The Boeing Company

**Abstract:** Aviation is one of the fastest advancing technology sectors in human history. Since the beginning of the jet age nearly 40 years ago, technology has advanced the industry to achieve incredible reductions in the environmental impact of airplanes. These advancements in technology have resulted in a 70% in CO₂ and a 90% reduction in the noise footprint area when compared original commercial jets. However, with a projected growth in passenger and cargo growth of 5% a year, Boeing will continue to introduce environmentally progressive technologies to respond to the environmental requirements of the future.

#### **Session 2: Safety Principles Derived from Aviation Accidents**

Speaker: Carrie Shiu, Configuration Design Engineer, The Boeing Company

**Abstract:** Through rain and shine, airplanes carry millions of people every day over every kind of challenging terrains around the world. To ensure airplanes are as safe as possible have become the ultimate goal for the aviation industry. This presentation will take us back in time to some of the deadliest airplane accidents and examine the root causes and the hard-earned lessons. From there we will see how the industry implements these design principles into modern day commercial airplanes to enhance the safety of the passengers.

#### Session 3: Air Traffic Management - Current and Future Trends

**Speaker: William R Richards,** Technical Fellow – Air Traffic Management

**Abstract:** This presentation will provide an overview of current constraints to capacity and efficiency of global air traffic operations, highlight the anticipated traffic growth in the next 20 years, and discuss methods and enhancements which support growth in air traffic demand. Enhancements to be discussed include future communications, navigation, surveillance technologies in tomorrow's airplanes and automated air traffic control capabilities on the ground.

#### **Session 4: Onboard Wireless Networks and Global Connectivity Trends**

Speaker: Dr. Sudhakar Shetty, Senior Technical Fellow, The Boeing Company

**Abstract:** This presentation will provide an overview of status of cell phone usage and internet connectivity on the aircraft, the lessons learned over the years and the future plans to enable this worldwide. It will also explore the various off board connectivity solutions, their benefits and limitations. This will show how Boeing is working on extending the passenger connectivity from office and home to an aircraft environment to provide a seamless experience.