

Poornima Balakrishna

Dr. Poornima Balakrishna is a research engineer at Saab Sensis Corporation, supporting the firm for over eight years. In 2011 she began working with the U.S. Federal Aviation Administration (FAA) on safety risk baselining and forecasting. Her work and interests in the field of aviation safety include accident causation and risk characterization, risk quantification, human performance modeling, hazard classification, and subject matter expert elicitation techniques. Her presentation at the IASS 2017 unifies these topics in the discussion of the FAA's Integrated Safety Assessment Model.

Dr. Balakrishna is the principal author of a book chapter on *Applying Probabilistic Risk Assessment to Safety Risk Analysis in Aviation* published by IGI Global in 2016. Her previous work at Saab Sensis Corporation includes simulation studies of NextGen operational changes and the characterization of airport operations using surface surveillance data and colored stochastic Petri Nets.

Dr. Balakrishna received her doctoral degree in Operations Research from George Mason University where she was affiliated with the *Center for Air Transportation Systems Research (CATSR)*. Her dissertation addressed the scalability of approximate dynamic programming algorithms and applied the methodology to the problem of taxi-out time prediction at airports. Her work has been presented and recognized at a variety of forums including the American Society for Engineering Management (ASEM), the USA/Europe ATM Seminar, Digital Avionics Systems Conference (DASC), International Conference for Research in Air Transportation (ICRAT), The Institute for Operations Research and the Management Sciences (INFORMS), and the Transportation Research Board (TRB).

Dr. Balakrishna has a Master of Science degree in Operations Research from The University of Oklahoma where she studied metrology and form tolerance of machined parts. She received her Bachelor of Science degree in Electronics and Communication Engineering from Madras University in India.