Innovative composites for commercial aviation industry

ABSTRACT
In the past few years, the aircraft interior industry has become innovative and very cost-conscious. Composite materials are getting increasingly used for interior furniture and fittings. However, sustainability is also a growing issue and some of these interior parts can be manufactured with innovative material systems that satisfy both mechanical and functional requirements, and at the same time could be sustainable. This seminar will discuss the design and manufacture of some recyclable composite systems which can be used for aircraft interior items at reduced costs and a more favorable environmental impact. Researchers at the Centre for Advanced Composite Materials (CACM), in collaboration with a very successful aircraft interior manufacturing company, have developed relatively novel design and manufacturing techniques which could produce sustainable composites for various usages including those in the secondary structural load-bearing applications. The same techniques can also be extended into other facets of engineering, especially within the automobile and building infrastructure sectors.

The first part of this presentation will introduce the general research activities of CACM and its interactions with various organizations in New Zealand and overseas.

BIO
Professor Debes Bhattacharyya is a Distinguished Professor (holds a Personal Chair) in the Department of Mechanical Engineering and has been the founding Director of the Centre for Advanced Composite Materials (CACM) at the University of Auckland, since 2004. In 2010, he was also appointed the Director of Plastics Centre of Excellence to synergize the research between the two centers. He also holds an Adjunct Professor position at Washington State University, Pullman, USA. Professor Bhattacharyya was the Head of Mechanical Engineering Department from 1999 to early 2005 when he introduced a new degree in Mechatronics and successfully led the Department (was placed within top 5%) through the first Performance Based Research Funding exercise.

Refreshments will be served at 3:45 p.m.