

International seminar

Title: A Connectivity-Based Methodology for New Route Identification

Presenter: Prof. Anming Zhang

Abstract: The change of routes at an airport has a huge impact on airlines' revenue and city economy where the airport is located. Planning a successful route is a complicated decision-making process that involves considerations beyond the origin and destination. Past studies rarely consider how the addition of new routes or revision of existing routes affects the global aviation network and consequently impacts direct and transfer demands. A new data analytic approach is proposed to identify new and long-lasting routes and to assess connection quality from the global network perspective. It includes a comprehensive methodology for analysing the aviation network, evaluating potential route quality, deciding which routes warrant the selection, and estimating the long-and-short term traffic volume forecasts of the selected new routes. Seven attributes have been developed for route selection, covering growth, volume and connectivity-potential. Assessing connectivity potential permits the evaluation of the importance of a potential destination airport by considering the changes in competitive position that other airports connected to the same destination can expect when that new route is added to the network. This approach exploits the geographical relationships between airports and combines the network route supply data over a 9-year period to make assessment decisions on new destinations. A list of promising new destinations is created that can enhance the origin airport's connectivity-potential and improve the competitive advantage of airports. Managerial implications are also proposed for different aviation stakeholders to facilitate their strategic planning on airport facility and capacity expansion, airline competition, multi-airport region collaboration and air service agreements.

Place: Seminar Room A,B,C, East Library 3rd floor

Date: Thursday, July 6, 2023, 10:00-12:00

Anming Zhang's brief bio: Anming Zhang is a Professor in Operations and Logistics and holds Vancouver International Airport Authority Chair Professor in Air Transportation at Sauder School of Business, University of British Columbia. He is the President of the World Air Transport Research Society (ATRS) and was, in 2020, the President of Transportation and Public Utilities Group (TPUG) of American Economic Association. Prof. Zhang has published widely in the areas of transportation and industrial organization. He is the recipient of the "Yokohama Special Prize for Outstanding Young Researcher" awarded at the 7th World Conference on Transportation Research (WCTR) in Sydney, Australia in 1995, and of the Best Paper Prize at the International Transport Economics Association (ITEA) Conference on Transportation Economics, Toulouse, France in 2014. Currently, he is also in the Executive Committees of WCTR and ITEA.