Project Title: A Global Network Decision Support System for Air Passenger and Freight Businesses
研究題目: 一個全球航空網絡決策支持系統的研究
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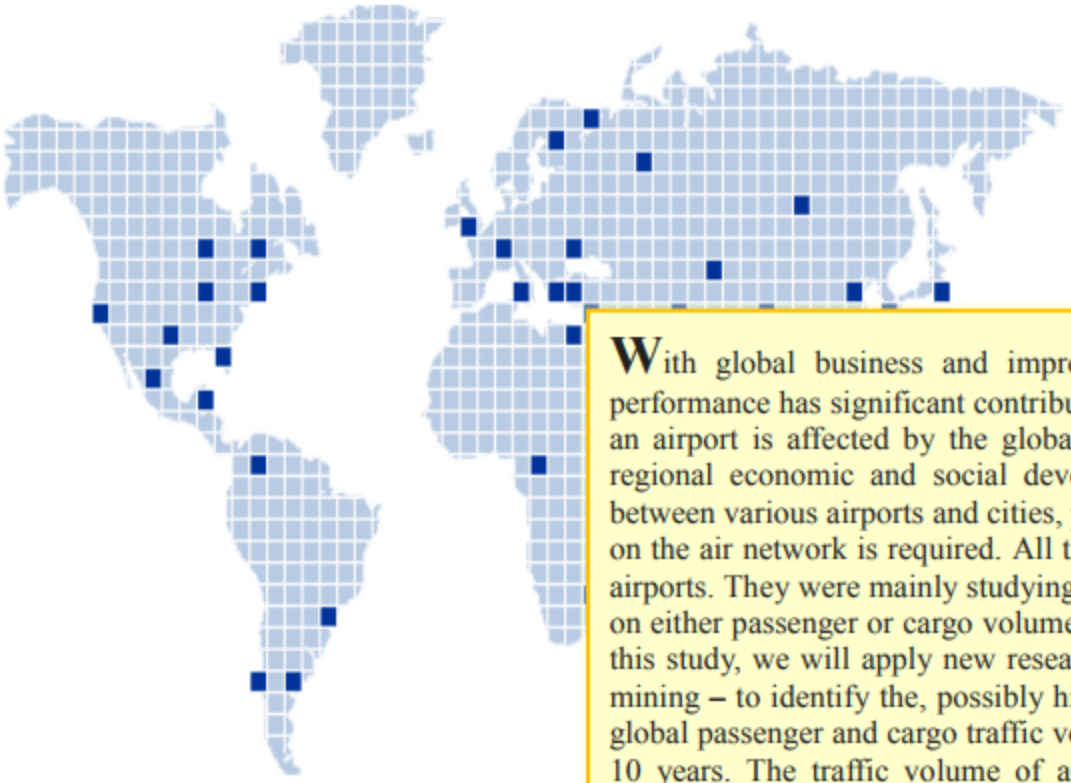
- ABSTRACT -

一個全球航空網絡決策支持系統的研究

A Global Network Decision Support System for Air Passenger and Freight Businesses



With global business and improving standard of living, the aviation industry performance has significant contribution to the economy of a city. The performance of an airport is affected by the global air transport network evolution, as well as the regional economic and social developments. To fully dissect the interrelationship between various airports and cities, passenger and cargo flows, a comprehensive study on the air network is required. All the previous studies were focusing on few specific airports. They were mainly studying the effects of pre-determined strategies or factors on either passenger or cargo volumes, by assuming all other variables independent. In this study, we will apply new research methodologies – network regression and data mining – to identify the, possibly hidden, relationships between airports based on the global passenger and cargo traffic volumes, among 5000 airports by routes, in the past 10 years. The traffic volume of an airport is not only related to the independent factors, but also related to global air network changes. Using the information from the network, an accurate air transport forecast can be attained. A decision support system will be established to assist policy makers to understand the effects of different strategies on the air network changes, in order to sustain and expand the city's strategic position and competitiveness by regularly examining current policies on aviation industry, and identifying the new demands, promising new routes and threats.