An Innovative Tour Recommendation System for Tourists in Japan

Thai Quang LE, Davar PISHVA
Ritsumeikan Asia Pacific University (APU), Beppu, Japan
quanle11@apu.ac.jp, dpishva@apu.ac.jp

Abstract—The paper demonstrates prototype of system that is capable of suggesting optimal touring plans which are composed of various points of interest (POI) and take travelers’ preferences and context into account. It systematically collects and analyzes information on thousands of tourists attraction areas and geographical nodes of Japan Railway (JR) train stations together with concurrent weather information, estimated travel time, associated expenses, and lists of multiple cultural events in order to demonstrate practicality as well as reliability of the system. A programmatic approach based on the heuristic greedy search is employed for transforming the obtained data into informative routes. It demonstrates the feasibility of the approach through its mobile prototype on web platform and tests it under various scenarios in eight different places in Japan which includes Tokyo, Osaka, Kyoto, Kobe, Yokohama, Nagoya, Fukuoka and Sapporo. Its result and the performance can be considered as a stepping stone towards a more localized and practical recommendation system in the field of tourism in the near future.

Keyword—e-tourism, travel planning system, web scraping, modeling, and data mining.

Thai Quang LE was born in Khanh Hoa Province, Vietnam in 1993. He received his university degree from Ritsumeikan Asia Pacific University (APU) in the field of Business Administration focusing on Strategic Management. He has received numerous scholarships including, APU Tuition Reduction Scholarship from 2011-2015, JASSO (Japan Student Services Organization) Scholarship from 2011-2012, and Oita Prefecture Scholarship in 2012-2013, 2014-2015. His research interests include applied programming in business, modeling for decision-making and machine learning, on which he has carried out a few presentations. The theme of his thesis is retail activity optimization and he has become an IEEE member since 2014.

Davar Pishva is a professor in ICT at the College of Asia Pacific Studies, Ritsumeikan Asia Pacific University (APU) Japan. In teaching, he has been focusing on information security, technology management, VBA for modelers, structured decision making and carries out his lectures in an applied manner. In research, his current interests include biometrics; e-learning, environmentally sound and ICT enhanced technologies. Dr. Pishva received his PhD degree in System Engineering from Mie University, Japan. He is Secretary General of IAAPS (International Association for Asia Pacific Studies), Senior Member of IEEE, and a member of IEICE (Institute of Electronics Information & Communication Engineers), IAAPS and University & College Management Association.

◆Corresponding Author: E-mail: dpishva@apu.ac.jp, Tel/Fax: +81-977-78-1261
Address: Ritsumeikan Asia Pacific University 1-1 Jumonjibaru, Beppu, Oita 874-8577 Japan