

## **Multiple Criteria Decision Making (MCDM 2017) International Conference Held for a Second Time in Canada**

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The 24th International Conference on Multiple Criteria Decision Making (MCDM 2017) was held at the Telfer School of Management, University of Ottawa, on July 10-14, 2017. This was the second time this conference was held in Canada; the first time being in Whistler in 2004, organized by Bill Wedley. We had a wonderful welcome by the school of management; and the scientific program as well as the social events were outstanding. There is a very good essay about the conference by Sarah Ben Amor (General Chair) at <http://www.mcdmsociety.org/newsletters/92017-september-2017> My reviews will be limited to the sessions I attended which were mostly those related to AHP/ANP Theory and Applications.

There were 200 participants, including more than 60 students. The conference organizers were able to attract 12 participants from industry. Most of the participants were from Canada (36) followed by Turkey (24), the United States (17), Brazil (14) and Poland (14).

There were 4 plenaries that included:

- Blair Feltmate of the Intact Centre on Climate Adaptation at the University of Waterloo: Un-Natural Alliances: Financial and Ecological Expertise Must Align to Address the Contagion of Climate Change
- Jyrki Wallenius from the Aalto University School of Business: A Voting Advice Model and Its Application to Parliamentary Elections in Finland
- Tuure Tuunanen from the University of Jyväskylä: Design Science Research: Theory Ingrained Artifact and Deriving Theories from Artifact
- Jack Kitts, President and Chief Executive Office of the Ottawa Hospital: Is it possible to create a sustainable healthcare system in Canada?

When I was listening to the presentation by Jack Kitts, I was thinking about how much opportunity exists for those of us who implement AHP/ANP by itself or in combination of other MCDM methodologies. He impressed me, as a CEO, with his understanding of multiple criteria methodologies and his appreciation of a data driven scientific approach of decision making. I thought his presentation should be disseminated widely; we might be able to secure it and publish it as an essay for our audience in the next issue of IJAHP.

There were 2 invited sessions on AHP/ANP Theory and Applications in Supply Chain Management and Industrial Engineering organized by B. Karpak, G. Buyukozkan and S.

Guleryuz. One session was chaired by Seyhan Nisel, and she also presented An Integrated Approach for Developing a User Satisfaction Model for Enterprise Resource Planning (B.Karpak, S. Nisel, R. Nisel) (Figure 1).

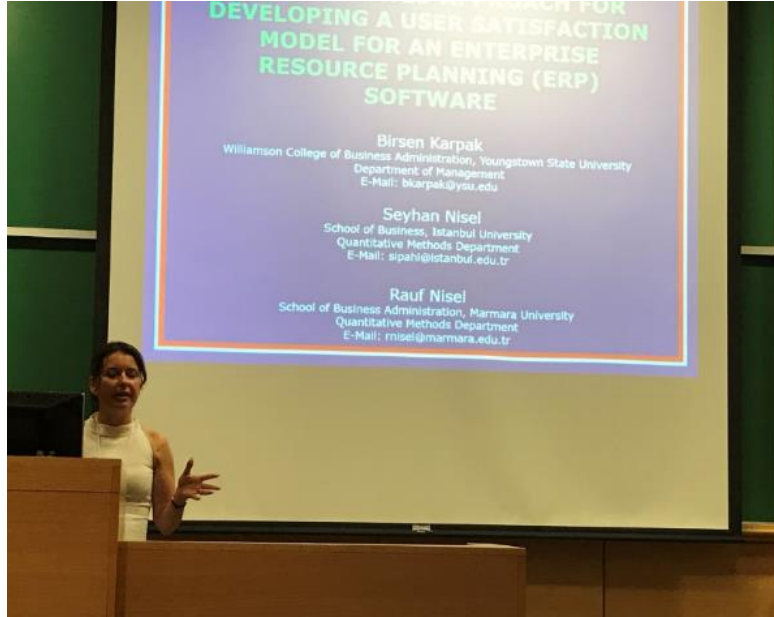


Figure 1. Seyhan Nisel, An Integrated Approach for Developing a User Satisfaction Model for Enterprise Resource Planning

In the same session Luis Vargas presented, How to Write a Contract with the AHP (L. Vargas) (Figure 2), which can be read as an article in this current issue. Gozde Kadioglu, a Master's student from Istanbul Technical University, Turkey, identified Cafe Nero as the most preferable coffee house followed by Starbucks in her AHP based, A Decision Support Model for the Assessment of Consumer Preferences: A Case Study on Coffee House Companies (G. Kadioglu, I.Topcu). Another interesting presentation in this session was Prioritization of Factors Affecting Dimensions of Sustainable Supply Chain Management (G. Kucukyazici, S.B. Amor, I. Topcu) by Gunes Kucukyazici. These authors prioritized social, environmental, and economic dimensions of supply chain management.

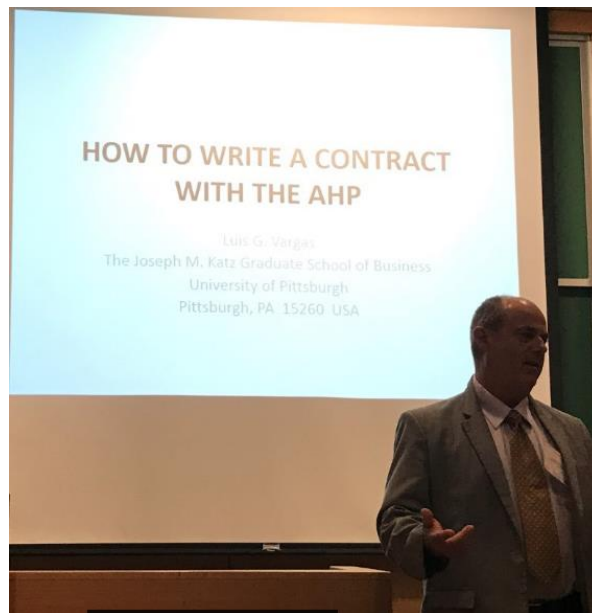


Figure 2. Luis Vargas, How to Write a Contract with the AHP

The second session was chaired by Birsen Karpak. Karpak's MBA students Crystal Volinchak  
Matthew Yourstowsky, Erin Whitehouse and Robert Woolley, from Youngstown State University utilized the Analytic Hierarchy Process (AHP) decision-making model to select the optimal market for international expansion for ABC Corporation located in Ohio (Figure 3). They identified Canada as the best export market for the company among China, Mexico, Canada, Germany and the United Kingdom (Birsen Karpak, Faculty Advisor). Konrad Kulakowski, AGH University of Science and Technology, Poland, presented Inconsistency in the Ordinal Pairwise Comparisons Method With and Without Ties. Sezin Guleryuz of Bartin University, Turkey proposed a Fuzzy Framework to Evaluate Service Quality in Turkish Public Hospitals. She contended that the framework proposed by her integrating DEMATEL, ANP and TOPSIS in the healthcare sector has not been offered in the literature. She shared with us the application of the methodology into a public hospital in Bartin, Turkey. The session ended with another DEMATEL, ANP Integration to Evaluate Transportation Modes presented by Karpak (Buyukozkan, Karadag co-authors).



Figure 3. Some Students attending the conference with their advisors.

First row, Birsen Karpak; second row from left to right, Crystal Volinchak, Erin Whitehouse,

Matthew Yourstowsky, and Robert Woolley; third row, from left to right Irem Karacakaya, Hafize Yilmaz, Berna Unver, Ilker Topcu, Sait Gul, Ozgur Kabak; last row, Ozay Ozaydin

There were presentations using AHP/ANP as a methodology by itself or in combination with other methodologies in additional applied sessions as well. I attended two of them. In Innovation for Sustainable Development (organized by Schillo, Lopez, chaired by Sandra Lopez) Yannick Cornet, from Technical University Denmark, Denmark, recommended hiring more transport planners with sustainability experience into government planning agencies and used Multiplicative Variant of AHP with other MCDM approaches (Figure 4). Berna Unver (Figure 3) undergraduate student from Istanbul Technical University, Turkey developed an Integrated Decision Support Model to calculate risk scores of workstations in Assembly Lines (M. Isik, O. Kabak, I. Topcu co-authors). The authors used ANP to prioritize factors causing failures on the workstations of the assembly lines in the automotive industry.



Figure 4. Yannick Cornet, Giving Future Generations Voice: Constructing a Sustainability Viewpoint in Transport Appraisal (Y. Cornet, M.B. Barfod, M.J. Barradale and R. Hickman)

There were interesting papers in the Decision Support for Humanitarian Relief (organized by Aktas, Cevik, Topcu and chaired by Hafize Yilmaz) (Figure 3). I was able to listen to only two of them. Irem Karacakaya (Figure 3), another undergraduate student from Istanbul Technical University, Turkey developed a Decision Support Model based on AHP for Warehouse Location in Humanitarian Relief Logistics (I. Topcu co-author) (Figure 3). In the second paper, the authors (H. Yilmaz and O Kabak, both in Figure 3) proposed a hesitant fuzzy mathematical programming model to contribute to the planning of mitigation efforts for an earthquake disaster expected in 30 years in Istanbul.

There were quite a few special issues announced in the essay by Sarah Ben Amor (General Chair) at <http://www.mcdmsociety.org/newsletters/92017-september-2017> one of which was from our own Antonella Petrillo and her colleagues: Theory and Applications of Fuzzy Systems and Multicriteria Decision Analysis, in *Advances in Fuzzy Systems*, edited by Antonella Petrillo, Fabio De Felice, Alessio Ishizaka.

A half-day outing, an afternoon cruise, was organized along the Ottawa River and was a great opportunity for informal interaction and relaxing (Figure 5). My husband, Cengiz Karpak is always with me as great supporter. Newlywed couples Sezin Güleriyüz and Coşkun Ergül and Makbule and Ahmet Kandakoglu, who just moved to Canada, shared our table. The conference banquet was held at the historical Chateau Laurier Hotel, in one of its most elegant rooms.





Figure 5. Half-day outing, an afternoon cruise along the Ottawa River. On the left Makbule Kandakoglu, Ahmet, Sezin Güteryüz starting from the far right Coşkun Ergül, Birsen Karpak, Ahmet Kandakoglu, Cengiz Karpak

It was great to be with my longtime friends Jyrki and Hannela Wallenius, and Murat Koksalan our MCDM society president, Banu Lokman, secretary for the society. We shared memories with the current and future conference chairs (Figure 6).



Figure 6. From left to right: Banu Lokman, Jyrki Wallenius, Sarah Ben Amor, Hannela Wallenius, Birsen Karpak, İlker Topçu, and Murat Köksalan

The 25th International Conference on MCDM will be held in Istanbul, June 16-21, 2019, and will be organized by İlker Topçu and his colleagues. Ilker received the flag from a very successful conference General Chair, Sarah Ben Amor. I am sure he and his colleagues will show us the famous Turkish hospitality. I am expecting a huge AHP/ANP community there since there are so many MCDM researchers in Turkey, and quite few of them are using AHP/ANP and new variants, and Istanbul is very close to our other community members.