

Developing a Decision Support System for University/ College Selection Problem for Kuwait

**Dana Abbas, Mariam Al-Ajmy, Marwa Ashknani, Fatema Bujaber, Maryam Khajah, and
Suat Kasap**

Industrial Engineering Department
College of Engineering and Technology
American University of the Middle East- AUM
Egaila, Kuwait
Suat.kasap@aum.edu.kw

Abstract

The future of any student depends mostly on choosing the right place to study after graduating from high school. Most high school graduates are lost in choosing their right path. This project helps high school fresh graduates to choose the best university or college in Kuwait based on their preferences. To choose the right place to apply, there are many decisions that should be taken into considerations. Those decisions are related to variety of universities/colleges and the students' preferred criteria. Decisions upon which university should be chosen depends on a list of criteria's, this makes it a decision-making system based on multiple criteria. A Decision Support System (DSS) is developed to take this problem into consideration. Analytic Hierarchy Process (AHP) is a Multi Criteria Decision Making (MCDM) process that is chosen to provide alternative solutions for the students based on several criteria's. Microsoft excel is used in applying AHP, and a Website was built to represent our future business.

Keywords (12 font)

University/college selection problem; Decision Support Systems; Multi-Criteria Decision Making; Analytical Hierarchy Process.

Biographies

Dana Abbas holds a degree in Bachelor of Science in Industrial Engineering in American University of the Middle East- AUM.

Mariam Al-Ajmy holds a degree in Bachelor of Science in Industrial Engineering in American University of the Middle East- AUM

Marwah Ashknani holds a degree in Bachelor of Science in Industrial Engineering in American University of the Middle East- AUM.

Maryam Khajah holds a degree in Bachelor of Science in Industrial Engineering in American University of the Middle East- AUM.

Fatema Bujaber holds a degree in Bachelor of Science in Industrial Engineering in American University of the Middle East- AUM.

Suat Kasap has degrees in electrical-electronics engineering and industrial engineering. He received his Ph.D. in Industrial Engineering from the University of Oklahoma. His research interests are in human factors and ergonomics, occupational safety and health, work and process analysis, technology and innovation management, multi-criteria decision making, financial engineering, data mining, and modeling, analysis, and optimization of complex engineering problems. He has published in Journal of Global Optimization, Simulation, International

Journal of Applied Logistics, Topics in Health Information Management, Journal of History Culture and Art Research. He also authored five book chapters in Green Finance and Sustainability: Environmentally – Aware Business Models and Technologies, Development and Implementation of RFID Technology, Handbook of Applied Optimization, Encyclopedia of Optimization, Volume IV, Handbook of Combinatorial Optimization. He worked in four different Industrial Engineering Departments of the American University of Middle East, University of Turkish Aeronautics Association, Hacettepe University, and Çankaya University as an assistant professor. He has taught courses on Work Analysis and Design, Ergonomic Work Analysis, Cognitive Ergonomics Work Analysis, Technology and Innovation Management, Management of Information Systems, Introduction to Optimization and Modeling, Deterministic Models of Operation Research, Project Management, Multi-criteria Decision Making.