

## **Analytic Hierarchy Process Decision Making Algorithm**

**Richard Hannis Ansah, Shahryar Sorooshian, Shariman Bin Mustafa**  
Universiti Malaysia Pahang 26300, Kuantan - Pahang, Malaysia.

### **ABSTRACT**

Decision making in today's world certainly incorporates the consideration of assessment in view of a number of criteria, instead of a favored single criteria. Solving a multi-criteria decision issue offers decision makers suggestions, regarding the best decision choices (Alternatives). At the point when discovering the best decision of alternatives, subject to various distinctive criteria is almost impossible, the Analytic Hierarchy Process (AHP) has been very instrumental, effective, extraordinary and much of the time utilized strategy in solving problems in much complex decision making processes. This paper briefly discusses Multi-Criteria Decision Making (MCDM) and AHP as one of the most popular MCDM methods for group decision making. Also, steps, techniques and formulae used in AHP have been discussed to help handle the problems arising from choosing alternative(s). Finally, the paper offers recommendations to researchers and professionals to apply AHP methodology techniques when analyzing multiple, complicated and conflicting decision making problems.

**KEYWORDS:** Decision Making, Multi-Criteria Decision Making (MCDM), Analytic Hierarchy Process (AHP), Criteria and Alternative