

## Content

1. Introduction .....	6
2. Aims of the dissertation .....	7
3. Theoretical Foundations of MCDM .....	8
3.1 Taxonomy of MCDM Problems and Methods .....	9
4. Fuzzy Set Theory .....	9
4.1 Generalized Forms of Fuzzy Sets.....	10
4.2 Intuitionistic Fuzzy Sets in MCDM .....	10
4.3 Theory of Intuitionistic Fuzzy Sets .....	11
5. Investigative Part.....	12
5.1 Hybrid MCDM versus Single-Method Solutions .....	12
6. Proposed Hybrid/Integrated Method .....	15
6.1 First Tier - Conjoint Analysis.....	16
6.1.1 Relative importance of Attributes/Criteria.....	17
6.2 Methodological Outline of Intuitionistic Fuzzy TOPSIS .....	17
7. Numerical Examples .....	19
7.1. Decision Problem 1 .....	19
7.2. Decision Problem 2 .....	20
7.3. Decision Problem 3 .....	20
8. Sensitivity Analysis in MCDM .....	21
8.1 Schema 1: Swapping Criteria Weight .....	21
8.1 Schema 2: Swapping Decision Makers' Weight .....	22
8.1 Schema 3: Concuurent Swapping of Criteria and DMs Weight.....	23
9. Conclusion .....	23
References.....	25
List of tables .....	29
List of figures.....	30
List of Author's Publication Activities.....	30
Curriculum Vitae .....	32