**Program of PRO5965 – Multiple-criteria Decision Making**

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| **Classes** | **Date** | **Chapters of the book** |
| **1** | 15/09 | 1. Introduction  2. How people make decisions involving multiple objectives |
| **2** | 22/09 | 3. Decision involving multiple objectives: SMART  4. Introduction to probability |
| **3** | 29/09 | Application on software V.I.S.A. |
| **4** | 06/10 | Methods for weighting. SMART variations. Paper #1 |
| **5** | 13/10 | Smart application |
| **6** | 20/10 | Final Considerations for SMART(S/R). Utility theory. AHP. Paper#2 |
| **7** | 27/10 | 5. Decision making under uncertainty - Multiple objectives  Preference Matrix; Decision making under certainty  6. Decision making under uncertainty; Decision making under risk |
| **8** | 03/11 | Exercise: AHP and Decision tree |
| **9** | 10/11 | 7. Applying simulation to decision problems (Monte Carlo simulation in Excel)  8. Revising judgments in the light of new information. Paper #3 |
| **10** | 17/11 | 12. Scenario planning: an alternative way of dealing with uncertainty – Paper #4 |
| **11** | 24/11 | 13. Resource allocation and negotiation problems – Paper #5 |
| **12** | 1/12 | 11. Risk and uncertainty management  12. Decisions involving groups of individuals  Paper #6 |

**Activities:**

1. Hand in a conceptual map/summary of each book’s chapter (**individual**).

2. To give a lecture based on a paper (**pair**), including a summary of max 3 pages.

3. To do FOUR exercises (**individual**): SAMART, AHP, Decision Tree and Monte Carlo Simulation.

4. To develop a project (**pair**):

4.1 First round (October 6th): the idea.

4.2 Second round (November 10th): methodology.

4.3 Third round (December 1st): Full proposal.