



# UPM International Summer School

## Big Data Analytics

CTB, 24, 25 & 26 July 2019

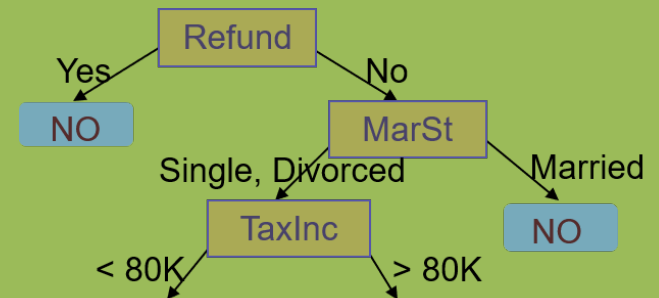
Director: Prof. Ernestina Menasalvas

This field is concerned with extracting the value potentially hidden in data to support decision-making processes. Challenges include analysis, capture, data curation, search, sharing, storage, transfer, visualization, querying, updating and information privacy.

Students: Bachelor

Pre-requisites: None

ECTS: 1 (10 in-class hours)





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## Big Data Analytics

### Syllabus

MODULE 1: I. Introduction to big data analytics and the cognitive era

The big data value chain

Methodologies for data analytics project development

II. Type of data mining problems: Clustering, association, classification

Tools and techniques

SQL vs NoSql databases

MODULE 2: I. Data analysis techniques

II. Big data in specific domains: Industry 4.0, Healthcare sector

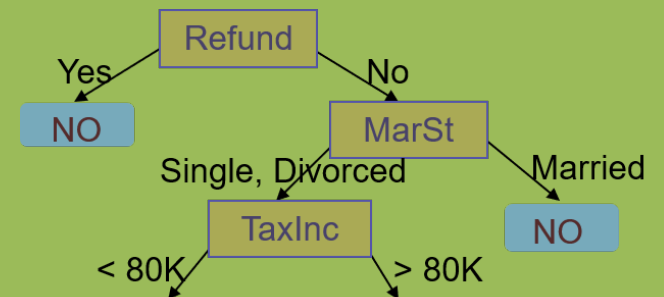
III. Practical assignment: Students will be given a dataset from which they will have to extract patterns using a data analytics tool (R, WEKA, Knime, ...)

MODULE 3: TBD

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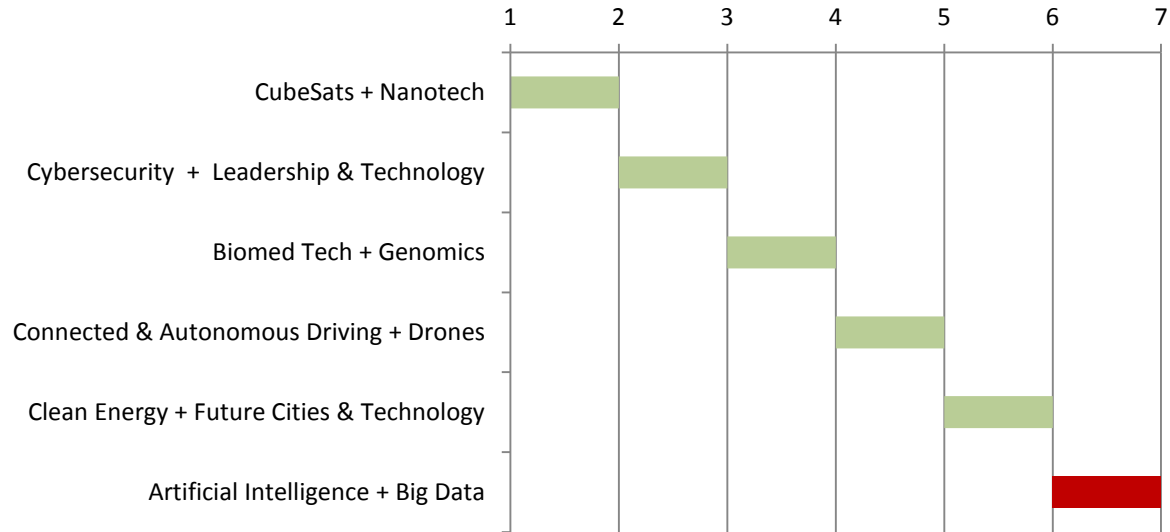




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### Schedule



Week	Monday	Tuesday	Wednesday	Thursday	Friday
6			Lecture I Lecture II	Lecture Practical Assigment	Industry Talk



# UPM International Summer School

## Big Data Analytics



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