BIG DATA ANALYSIS AND MANAGEMENT

GENERAL

SCHOOL	ENGINEERING		
DEPARTMENT	INFORMATICS AND COMPUTER ENGINEERING		
LEVEL OF STUDIES	POSTGRADUATE		
COURSE CODE		**SEMESTER**	2nd
COURSE TITLE	Big Data Analysis and Management		

INDEPENDENT TEACHING ACTIVITIES *(In case credits are allocated to distinct parts of the course, e.g., Lectures, Laboratory Exercises, etc. If credits are allocated uniformly to the entire course, state the weekly teaching hours and total credits.)*	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures	3	6

COURSE CONTENT

The course includes the following teaching units:
- **Data Collection and Preprocessing.**
- **Overview of Data Mining Techniques.**
- **Data Mining and Business Intelligence.**
- **Large-Scale Data (Big Data):** Integration of structured and unstructured data; Visualization.
- **Large-Scale Data Management:** Tools and architectures; MapReduce; Hadoop; The role of NoSQL databases.
- **Big Data and Data Warehouses:** Real-time analytical processing.
- **Semantic Web and Big Data.**
- **Mining Data Streams.**
- **Mining Data from Social Network Graphs.**
- **Advertising on the World Wide Web.**
- **Recommendation Systems.**