

Master Degree Programme in Computer Science

0. Presentation



SAPIENZA
UNIVERSITÀ DI ROMA

Prof. Ing. Claudio CILLI

cilli@di.uniroma1.it

<http://dsi.uniroma1.it/~cilli>

Enterprise Information Systems (EIS) – main topics

- Information, Organization, Processes
 - Business Process Modeling, Monitoring, Reengineering
 - Operational support & supporting technologies (e.g., web IS)
 - Business Intelligence (BI) & Management Information Systems
 - Introduction to Data Warehouse (DW) & Data Mining (DM) for EIS
 - Examples of Information System & supporting technologies
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- + Presentation of case studies
- + Seminars + business experts
- + Presentation of technologies



Topics (1/2)

1. Information

- Organization, information system and data processing, efficiency and effectiveness, information technology, information resources

2. Process management

- process classification - identification, description and decomposition of processes
- organizational variables - Business Process Reengineering (BPR), Benchmarking

3. Process Model

- introduction to State Diagrams, Data Flow Diagram (DFD), Wide, Action Workflow, Petri Nets

4. Operational Support

- types of information, application portfolio, institutional and operational p.
- manufacturing company portfolio, integrated solutions (CIM, MRP, ERP, CRM), e-procurement

- 3 – service company portfolio (front office and back-office)



Topics (2/2)

5. Management Information Systems

- generalities, Business Intelligence architecture, information management,
- requirements for management analysis: Critical Success Factors (CSF), Key Performance Indicators (KPI), support to Balanced Scorecard (BSC)

6. Data Warehousing for Enterprise Information Systems

- motivations and basic concepts; OLTP & OLAP
- DW architectures, ETL, Data Mart - multidimensional model, dimensional hierarchies, actors
- DW, conceptual design, logical design, physical design
- basic techniques for Data Mining

7. A software platform for Data Warehousing

- general features and installation
- DW exploration, construction of data marts
- OLAP sessions, KPI, Data Mining



Information System & IT – a pragmatic view

INPUT PROCESSING OUTPUT

