

## **Mini-Project E-Conference**

A research institute intends to continue hosting of the famous “Emerging software technologies” Conference in 2013 but only after an innovation process of the conference organization. For this, the institute has approached your company to develop a software system for handling the business processes associated to the conference. Here are the user requirements your company received:

The conference has 5 main tracks: Internet technologies, Software Agents, E-Government, Medicine 2.0 and Bioinformatics and should be entirely web-administrated within a site. A user can register as an author or as a reviewer.

To send a paper or a review a user must first register online, that is create an account supplying his personal data, email address, password and choice to receive updates. If a user registers as a reviewer, he/she must also choose one track for the papers he/she will review. He/She is allowed to access only papers for which he/she is not an author. The registration is done on a web platform supporting multiple conferences and open journals. Once registered there a user can use the credentials at all of those venues, having of course different roles.

The papers can be either long papers (8 pages) or short papers (4 pages). A paper consists of a title, authors, keywords, abstract, content, and bibliography. It should be also associated to a track. Any paper has a main author and eventually secondary authors. An author can be the main author for at most one paper for each track.

If a user registers as an author, he/she must upload the paper till 15th of June and a notification of paper reception is sent to him/her. On the 16th June the organizers allocate papers to the registered reviewers by matching the paper track with the reviewers’ chosen track and then balancing the matching pairs in order to have 2-3 reviewers for each paper. Then the allocated papers are sent to reviewers by email.

Once logged in, the reviewer is shown the list of his/her allocated papers with marking if reviewed or not. The reviewer comments each paper, gives a grade (an integer from 0 to 5) to it, and justifies the grade. During the review the reviewer can temporarily suspend his/her work and resume it later for more times. When he/she decides to submit his/her review, the paper title is cancelled from his/her paper list.

On the 16th July the average grade as well as all the reviewers’ comments for the paper are sent to the main author by email. If the average grade is less than 3 the paper is rejected. The first at most 20 papers in the descending list of papers’ average grades are accepted for each track.

### **Work Packages:**

#### **A. WP1-Systems Engineering Methodology:**

- A1 Partition the current system according the processing and the processor views in a System Modeling Template
- A.2 Draw the Architecture Flow Context Diagram for the system

#### **B. WP2-Structured Methodology:**

- B.1. Define the environmental and behavioral model for the information system
- B.2. Starting from the level 3 DFD, propose a design model based on transformational and/or transactional flows.

#### **C. WP3-Enterprise Wide Methodology:**

- C.1. Draw the activity diagrams for the main business process
- C.2. Map the enterprise organigram and specify the business functions of each division.

#### **D. WP4-Object-Oriented Methodology:**

- D.1. Draw the domain model for the business.
- D.2. Draw the Business Use Case Diagram
- D.3. Interaction diagrams for the main business scenarios
- D.4. For the software use case of **TBD** write the use case description, system sequence diagram and describe an operation using an operation contract.
- D.5. Propose a software architecture for the system, arguing for the design decisions you have made.
- D.6 Draw the statechart for a **TBD** object lifecycle.

**TBD = to be decided: The task will be assigned by your tutor based on your project so far.**

