

FORTHEM study projects offer from IUT of Chalon-sur-Saône

First Year Industrial Maintenance Engineering

Who we are:

The IUT (University Institute of Technology) of Chalon sur Saône is a pleasant campus of the Université de Bourgogne. Located in the city of Chalon it hosts 450 students who complete there their first 2 or 3 years in Higher Education. Students may later join Engineering schools or Colleges for further education.

The courses of IUT Chalon sur Saône are:

- 4 University Diplomas in Technology (called "DUT" – two-year degree):
 - Legal Careers (CJ) ;
 - Industrial Engineering and Maintenance (GIM);
 - Logistics and Transport Management (GLT);
 - Materials Science and Engineering (SGM).
- 5 Professional Degrees (Vocational Bachelor's Degrees - level L3)
 - Agricultural Equipment with two streams :
 - . Technical and Economic Management (GTEA) - .
 - . Automation and Robotization in Livestock Farming (ARE) ;
 - Non Destructive Testing of Materials and Structures (CNDMS);
 - Logistics and Flow Management: Hospital Logistics (LH);
 - Logistics and Information System: Supply Chain (SC);
 - Sound and Image Technology with two streams :
 - . Image and Sound Techniques and Activities (TAIS)
 - . Real Time 3D Computer Graphics (I3DTR)

Which projects we have to offer:

Program Management of Buzzer Game

- This project can be broken down with the Framework of FORTHEM in three parts:
 1. The Technical Part
 2. Creation of the Quiz
 3. FORTHEM Team Participation in the Quiz
- **[Description of the proposed shared tutored project] : (1-2 pages)**
 - 1 - The Technical part : Use the Raspberry program to create a set of buzzers. Using the programming language called Python, we aim to make the buzzers respond (graphic integration using a Tkinter, sound/light effects, and an optional, wireless bluetooth buzzer). This should make it possible to mask 5 text fields (1 for the title and 4 for the answers) and to integrate an image. Each question will be

formatted through the same database and graphic chart. The goal is to expand programming knowledge to create a workable user friendly interface.

2 - The creation of the quiz is where we would like to propose general culture questions of different FORTHEM countries. We would like to prepare the questions with FORTHEM students. This will allow us to exchange, to get to know each other and discover other participants' culture to create an original motivating game. The idea would be to continue to exchange with certain FORTHEM students for future joint projects and exchanges.

3 - For player participation, we will create several teams and we would like to come together to play and compete in a game of general culture questions. It is important for each team to be well balanced to give everyone a fair chance at winning. Because the buzzers are physical objects this game should be done in person. These games could be organized after the deadline of the tutored projects which is June 2021 and be repeated for future years.

In conclusion, we are looking for a team of teachers and FORTHEM students to help us on one of these three points.

- Topic
 - numbers of students involved : 4 to ?
 - Duration : 5 months (can be repeated next academic year)
 - management modalities : team work with teaching staff
 - assessment modalities : one final mark
 - number of ECTS : 8 ECTS
- **[Proposed practical organisation of the shared tutored project] : (1/2 page)**
 - Level of integration (from mixed groups across universities to limitation to sharing selected projects on different sites)
 - Number of partners possible within the alliance
 - Desired starting date: After June 2021
 - Type of mobility: physical and or virtual
- **[Contact persons: Name, addresses, function...]**
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