Please fill in the form by computer.

PARTICIPANT

Mr/Ms	Last Name	**Rubinstein**	First Name	**Alon**
Institution		**HIT- Holon Institute of Technology**		
Department		**Research, Development and External Relations Authority**		
Role in the institution		**R&D Funds Coordinator**		
Address		**52 Golomb st.**		
Town		**Holon**	Country	**Israel**
Postal Code		**5810201**	Homepage	**www.hit.ac.il**
Telephone		**+972-3-5026701**	Email	**alonr@hit.ac.il**

PROJECT INFORMATION

Discipline / Acad. field	**Electrical Engineering and Computer Science**
Type of project idea	☐ Erasmus Mundus JMD ☒ Capacity Building in HE ☐ Jean Monnet

Project description

The problem: We are living in a multidisciplinary era, where cross relations exist among various disciplines and knowledge domains. Yet, cross-relations are not incorporated into the curriculum, especially not into core courses' syllabi, in the faculties of engineering and exact sciences. A lot has been written on the dropout rate among students in the faculties of Engineering and Exact Sciences, especially between the first and second year of studies. Many of these dropouts are potentially good students that failed to adjust themselves to the academic system in general and to the engineering and exact sciences studies in particular. Many of these dropouts don't understand the importance, necessity and relevance of the basic (core) courses, such as calculus, linear algebra, discrete math, mechanics (physics) etc. Thus, they lose their interest quite in early stages of their studies, assuming that the area of study they had chosen is not the right for them. Many of the remaining students (especially those in the second and third year) may also share these thoughts and feelings, due to the fact that lecturers, even the experienced ones, seldom spend their teaching time to explain the relevance of these basic (core) courses to the advanced courses and to the actual real life/work challenges in the industry. Lack of cross-relations between calculus, linear algebra, discrete math etc. hinder the students from seeing and grasping the holistic picture – what are they studying and why.

Our proposal: Refreshing the curriculum, especially the syllabi of the basic (core) courses, by incorporating real-industry life challenges as examples (e.g., matrices in linear algebra as images in image processing) as well as cross-linking various basic and advanced courses and topics for fostering holistic understanding of the topic, course and discipline

Looking for a Partner Institution / Coordinator?

Please, describe what kind of partners you are looking for and for what specific tasks:

We are looking for partners and/or coordinator to lead this project – it should be campuses with faculties of engineering and exact sciences (information science is also welcomed). We seek for partners that share our concerns, as expressed above, and are opened to changes, such as mentioned above. We prefer partners that are focused on applied sciences and engineering with a strong mission of preparing students for the industrial world challenges (partners with close connections and collaboration with the industry).