Lecturer

Name: Antonio Martinez Millana
Background: Ph.D. in Telecommunications Engineering and Technologies for Health and Wellbeing
Specialization: Senior researcher in ITACA Institute and Lecturer of the Department of Electronics in Universitat Politècnica de València
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Name: Francisco de Borja Trujillo Ruiz
Background:

- Bachelor's Degree in Industrial Engineering at Universitat Politècnica de València.
- Bachelor's Degree in Economy at Universitat de València.

Specialization: Collaborating professor
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Name: Jesús Andrés Picó Marco
Background: PhD in Automatic Control at Universitat Politècnica de València
Specialization: Full Professor in Automatic Control
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CV: ResearchGate

Name: Salvador Coll Arnau
Background: PhD in Computer Science at Universitat Politècnica de València.
Specialization: UPV Science Park Director
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Name: Javier de Toro Velázquez
Background: Business Bachelor Studies in Entrepreneurship, Business Administration and Management. EDEM
Specialization: Project Manager
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Name: Salvador Más
Academic Background:

- Bachelor's degree in Economics at Universitat de València.
- MIT Entrepreneurship Development Program.

Field of Specialization: Vice President
Employer: Spanish Association of Fintech e Insurtech AEFI
Previous Positions: CEO, Finametrix / Founder, Owner & CEO, Openfinance
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Name: Santiago Bollain Pastor
Background: Industrial engineering.
Specialization: Midmarket sales manager in IBM
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CV: **LinkedIn**

Name: Alfonso Filardi García
Background: Bachelor's degree in Mechanical Engineering at Universidad de León.
Specialization: Student at Universitat Politècnica de València.
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Name: Álvaro Ravelo Mederos
Background: Bachelor's degree in Telecommunication Technologies Engineering.
Specialization: Student at Universitat Politècnica de València.
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Name: Vicente Ramírez
Background: Bachelor's degree in Edification Engineering.
Specialization: CEO in Be More 3D
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Name: José Luis Puchades Valencia
Background: Master's Degree in Building Technology
Specialization: CFO & design on Be More 3D
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Course Description

Title: Imagination, life is innovation
Fields of activity:
Aerospace/Aeronautical Engineering , Applied Sciences , Automotive Engineering , Biological/Biotechnical/Gene Engineering , Biomedical Engineering , Computer Engineering , Computer Science/Automatic Control/Informatics , Control Engineering/Systems engineering , Economics/Business Administration/Marketing , Electrical/Electromechanical Engineering , Electronic/Electrotechnical Engineering , Industrial Engineering , Industrial Management , Logistics , Machine & Instrument engineering/Design , Materials Engineering , Mechanical Engineering , Mechatronics , Multimedia and Communication Design , Production Engineering/Management , Textile Engineering & Technology , Transport Engineering
Examination type: Final presentation
Number of ECTS credits issued: 1 ECT
Learning Goals and Objective: An overview about how innovation works.

Syllabus

Name of activity	¿What is innovation?
Number of working hours	1,5
Type of activity	Lecture
Lecturer	Salvador Más
Short summary of content	Innovation is the major trend in the actuality, which can be seen in all the startups that are constantly being created. But, what is “Innovation” exactly? That’s the question that will be answered along this activity.
Bibliography	N/A
Expected effect	Students will acquire the bases about Innovation in order to face the rest of the course appropriately.

Name of activity	UPV Innovation

Number of working hours	0,5
Type of activity	Lecture
Lecturer	Salvador Coll Arnau
Short summary of content	This session describes the UPV initiative to promote innovation and generate impact in the region through the mobilization of UPV talent. The organization of UPV towards innovation is explained. Main focus is on the role of the science park as an ecosystem where academia and industry meet. The science park is a tool devised to speed-up the process of knowledge to economic impact transformation.
Bibliography	N/A
Expected effect	Students will know how a university is able to innovate producing a positive effect in the region in which it is located; and even how the students can take part of that fact.

Name of activity	CPI Laboratories (I3B & I3M)

Number of working hours	2
Type of activity	Laboratory visit
Lecturer	Salvador Coll Arnau
Short summary of content	I3B (Institute for Research and Innovation in Bioengineering) is a research center integrated in the Polytechnic City of Innovation, that analyses human activity and develops innovative means of human-computer interaction seeking a natural integration of technology in daily life. I3M is a center of investigation created by the Universitat Politécnica of València, which have the objective of investigate new techniques of scientific investigation for image applications on the biomedical field. The students will see both laboratories where they investigate the innovations which are working.
Bibliography	N/A
Expected effect	Students will acquire the knowledge about the instruments and methods that the scientists use for develop their innovations in a researching laboratory.

Name of activity	Lanzadera - Marina de Empresas
Number of working hours	1,5
Type of activity	Company Visit
Lecturer	Javier de Toro Velázquez
Short summary of content	"Marina de Empresas" is a business incubator in which the ideas of entrepreneurs take shape and can create and make grow a company based on that idea. Students will be explained briefly how this process works, and will see some of the companies that are being developed in these installations.
Bibliography	N/A
Expected effect	The students will learn how to develop an idea away from university, and how this process is. It will motivate the students to develop the ideas they have

Name of activity	Individual researching
Number of working hours	2,5
Type of activity	Individual Work
Lecturer	Alfonso Filardi García and Álvaro Ravelo Mederos
Short summary of content	The students will carry out the first steps of an innovative project, in which they will have to put into practice the things that they have started to see along the first day of the course. A tutor will be present for the entire activity, in order to help students and clarify doubts. Everything students will need for the activity will be provided, specially technological support.
Bibliography	N/A
Expected effect	Students will face current problems and begin to develop an innovative idea to find a solution to these. They will do it by means of identifying problems and brainstorming of solution.

Name of activity	IBM
Number of working hours	1
Type of activity	Lecture
Lecturer	Santiago Bollain Pastor
Short summary of content	It will explained the following innovations that IBM is developing • Quantum computing. • Blockchain. • Data explode and the cognitive world.
Bibliography	N/A
Expected effect	Students will discover some innovations in which IBM is working on currently.

Name of activity	BeMore 3D
Number of working hours	1,5
Type of activity	Company Visit
Lecturer	Vicente Ramírez and José Luis Puchades Valencia
Short summary of content	Technology-based SME specializing in 3D printing with Concrete with a clear strategic objective: Build homes using proprietary 3D printing technologies with concrete in less than 24 hours, with customized, ecological forms and reducing their cost by 35% compared to conventional construction, After this step we start selling devices to large construction companies that want to implement our technology and nurture the many advantages. Loyalty customers with training courses, technical service and sale of the necessary material to print the houses.
Bibliography	N/A
Expected effect	Students will know how to take advantage of a new technology in order to create new company and grow in a well-established sector such as construction.

Name of activity	Introduction to innovation management, Business model canvas and visual thinking
Number of working hours	2
Type of activity	Lecture
Lecturer	Francisco de Borja Trujillo Ruiz
Short summary of content	The participants will see various models to organize a project, like Business model canvas and visual thinking. Moreover they will put in practice all
Bibliography	N/A
Expected effect	The participants will learn how to prepare a plan to develop an idea

Name of activity	Handbook for innovation
Number of working hours	2,5
Type of activity	Lecture
Lecturer	Antonio Martínez Millana
Short summary of content	In this session, Antonio Martinez-Millana, lecturer and European Research Project Manager will introduce the students into the ways to manage innovation, providing definitions, tools and methods to manage the creation and development process. Among the tools, we will understand how an idea can be prototyped and testes using Design Thinking Methodologies, how an innovation project can be handled using Project Management principles and how to manage the Intellectual Property of both ideas and developments.
Bibliography	N/A
Expected effect	At the end of this activity students will be prepared to face the development of an innovative project regarding the managing this project.

Name of activity	iGem - Synthetic biology
Number of working hours	2
Type of activity	Lecture
Lecturer	Jesús Andrés Picó Marco
Short summary of content	A brief introduction to synthetic biology will be done in order to present as best as possible the project “Printeria” at the second part of the activity. Printeria is a project developed by a multidisciplinar group of student during the last academic course which won a large quantity of awards in iGem competition.
Bibliography	N/A
Expected effect	Students will get to know an example of successful innovative project carried out by students which will show that students are not so far from this kind of projects. It will motivate participants to develop their own projects.

Name of activity	Project Work
Number of working hours	3
Type of activity	Project Work
Lecturer	Antonio Martínez Millana
Short summary of content	The participants will work in groups. They will have to apply all the ideas which they had learn during the course. The participants could work deeply in their project.
Bibliography	N/A
Expected effect	- The participants will improve their teamwork skills - The participants will put in practice all what their learn during the course

Name of activity	Exam Preparation
Number of working hours	1,5
Type of activity	Project Work
Lecturer	Alfonso Filardi Garcia and Alvaro Ravelo Mederos
Short summary of content	The participants will work in groups. They will have to prepare a presentation explaining the innovation which they made during the week. The participants could work deeply in their weekly project of the course. They will have time to finish all those parts thy couldn't do during the week
Bibliography	Write all the needed bibliography for this activity.
Expected effect	At the end of this activity the participants will have prepared the presentation of the project developed during the previous activity.

Name of activity	Exam Presentation
Number of working hours	1,5
Type of activity	Exam presentation
Lecturer	Alfonso Filardi Garcia and Alvaro Ravelo Mederos
Short summary of content	The participants must defend their project in front of a jury. The jury will assess if the participants have used properly the tools given during the course.
Bibliography	N/A
Expected effect	- The participants must learn how to defend their idea. - The participants must learn how to develop a own idea. - The participants will improve their skills in talking in front of a jury. - The participants will have to organise themselves to perform the best presentation.

Pre-materials

Conferences and TED talks:

Name	Where good ideas come from
Topic/field	Ideas generation

Name	The surprising habits of original thinkers
Topic/field	Innovative people
Short description	How do creative people come up with great ideas? Organizational psychologist Adam Grant studies "originals": thinkers who dream up new ideas and take action to put them into the world. In this talk, learn three unexpected habits of originals -- including embracing failure. "The greatest originals are the ones who fail the most, because they're the ones who try the most," Grant says. "You need a lot of bad ideas in order to get a few good ones."

Name	The secret to great opportunities? The person you haven't met yet
Topic/field	Innovation opportunities

Name	Play this word game to come up with original ideas
Topic/field	Ideas generation

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Articles:

Name	The 4 phases of innovation
Topic/field	Innovation phases
Short description	Along this article, the basic phases of innovation process are explained
Professor/Author	Angela Hengsberger

Name	What is innovation culture?
Topic/field	Innovation phases.
Short description	Along this article, the basic phases of innovation process are explained.
Professor/Author	Franz Emprechtinger

SCHEDULE

		APRIL				
		Monday 22nd	Tuesday 23th	Wednesday 24th	Thursday 25th	Friday 26th
8:00	8:30	A	Wake Up & Breakfast	Go to UPV	Wake Up & Breakfast	
8:30	9:00	R	Go to UPV		Go to UPV	
9:00	9:30	R	OFFICIAL OPPENING	INDIVIDUAL WORK: Individual researching 2,5 hours	LECTURE 3: Introduction to Innovation Management, Business model canvas and visual thinking 2 hours	PROJECT WORK: 2 hours
9:30	10:00	I	LECTURE 1: ¿What is innovation? 1,5 hours			
10:00	10:30	V				
10:30	11:00	A				
11:00	11:30	L	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK
11:30	12:00		LECTURE: UPV Innovation 0,5 hours	LECTURE 2: IBM 1 hours	LECTURE 4: Handbook for innovation 2,5 hours	PROJECT WORK: 1 hours
12:00	12:30		LABORATORY VISIT: CPI Laboratories (I3B & I3M) 2 hours			
12:30	13:00			COMPANY VISIT: BeMore 3D 1,5 hours		EXAM PREPARATION 1,5 hours
13:00	13:30					
13:30	14:00					
14:00	14:30	LUNCH	LUNCH (BEACH)	LUNCH (RIVER)	LUNCH (UPV)	LUNCH (UPV)
14:30	15:00					
15:00	15:30				LECTURE 5: iGem - Synthetic biology 2 hours	EXAM PRESENTATION 1,5 hours
15:30	16:00					
16:00	16:30		COMPANY VISIT : Lanzadera - Marina de Empresas 1,5 hours			
16:30	17:00					OFFICIAL CLOSING
17:00	17:30					

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