

0.6-0.7 JULY 2017 CASTELLÓ

1<sup>st</sup> INTERNATIONAL CONFERENCE ON  
**ENGINEERING EDUCATION**  
FOR THE XXI CENTURY



- Program -

[www.engineeringeducation.uji.es](http://www.engineeringeducation.uji.es)



On behalf of the organising committee, we are pleased and honoured to welcome you to the FIRST INTERNATIONAL CONFERENCE ON ENGINEERING EDUCATION FOR THE TWENTY-FIRST CENTURY, to be held in Castellón de la Plana (Spain) on 6 and 7 July 2017.

The conference is co-organised by the Jaume I University in Castellón (UJI) and the University of the Basque Country (UPV-EHU) and is intended as a forum for the exchange of ideas, opinions and experiences and debate on the subject of engineering education and ways in which it can be adapted to the new university paradigm. The central theme of this first conference is “***New competences in the area of sustainability and university social responsibility***”.

The aim is to discuss the need to incorporate new transverse competences associated with sustainability and university social responsibility into the engineering curriculum. Teachers today face difficult challenges in this area. We need to identify and define these competences and find the best way of addressing them in the engineering curriculum. Taking part will be some renowned international colleagues from the areas of sustainability and social responsibility, who will help open the floor to deliberation and discussion. We will also hear from colleagues who are already working in this direction in their teaching practice, and whose experience will serve as an example and inspiration.

The conference is interested in works on education in engineering, particularly by those who are implementing some aspect of social responsibility and sustainability in undergraduate and postgraduate engineering studies. Communications are related to the creation of theoretical frameworks, application of new methodologies in the classroom, presentation of teaching experiences or any other activities related to engineering education.

The conference includes five main sessions:

- a) **Service-Learning and social commitment in engineering.**
- b) **Engineering and gender.**
- c) **Engineering and development co-operation.**
- d) **Environmental sustainability.**
- e) **Corporate and business social responsibility.**

You can download the book of abstracts by scanning this QR code.



# Timetable

		DAY 6		DAY 7	
8:45	9:00	Reception			
9:00	9:15	Opening			
9:15	9:30	Plenary A) engineering service learning: the what, why, who, and how. Dr. Susan Nesbit		Plenary D) Bridging sustainable development competences to pedagogical approaches in higher education. Dr. Rodrigo Lozano	
9:30	9:45				
9:45	10:00				
10:00	10:15	Plenary B) Including gender perspective in engineering teaching. Dr. Núria Salan		Plenary E) "The engineer as a socially responsible leader" Jose Juan Caballero	
10:15	10:30				
10:30	10:45			Coffee break	
10:45	11:00	Coffee break			
11:00	11:15			O-D-1	
11:15	11:30	O-A-1	O-B-1	O-E-1	
11:30	11:45	O-A-2	O-B-2	O-E-2	
11:45	12:00	O-A-3	O-B-3	O-E-3	
12:00	12:15	O-A-4	O-B-4	O-E-4	
12:15	12:30	O-A-5	O-B-5	O-E-5	
12:30	12:45				
12:45	13:00			Workshop D	
13:00	13:15	Workshop A	Workshop B	Workshop E	
13:15	13:30				
13:30	13:45				
13:45	14:00				
14:00	14:15				
14:00	14:15	Lunch			
14:15	14:30			Lunch	
14:30	14:45				
14:45	15:00	Plenary C) "The potential of formal and informal spaces in engineering studies to promote global citizenship". Dr. Carola Calabuig Tormo			
15:00	15:15				
15:15	15:30				
15:30	15:45	O-C-1			
15:45	16:00	O-C-2			
16:00	16:15	O-C-3			
16:15	16:30	O-C-4			
16:30	16:45	O-C-5			
16:45	17:00	Coffee break			
17:00	17:15				
17:15	17:30				
17:30	17:45				
17:45	18:00	Workshop C			
18:00	18:15				
18:15	18:30				
18:30	18:45				
18:45	19:00	Closing of the day			
19:00					

TITLE		PRESENTER
SESSION A: SERVICE-LEARNING AND SOCIAL COMMITMENT IN ENGINEERING		

K-A	ENGINEERING SERVICE LEARNING: THE WHAT, WHY, WHO, AND HOW	SUSAN NESBIT
-----	---	--------------

O-A-1	SERVICE LEARNING FOR ENGINEERING EDUCATION FOR SUSTAINABILITY	JORDI SEGALÀS
O-A-2	EXPERIENCIAS DE APRENDIZAJE-SERVICIO BASADO EN PROYECTOS EN GRADOS DE INGENIERÍA EN LA UNIVERSITAT JAUME I	LUIS CABEDO
O-A-3	URV SOCIAL VEGETABLE GARDENS, AN INTERDISCIPLINARY PROJECT	JAUME FABREGAT GONZÀLEZ & ANNA ROYO BARENG
O-A-4	APRENDIZAJE-SERVICIO Y MENTORING: CLAVES PARA LA FORMACIÓN EN RESPONSABILIDAD SOCIAL DE LOS INGENIEROS INFORMÁTICOS	OLGA PEÑALBA
O-A-5	LA DIVULGACIÓN CIENTÍFICA COMO HERRAMIENTA PARA ACERCAR LA CIENCIA A LA SOCIEDAD	JOSÉ A. PADILLA

W-A-1	UNIVERSITY SOCIAL RESPONSIBILITY IN ENGINEERING UNDERGRADUATES: DESCRIPTION OF A SERVICE-LEARNING EXPERIENCE	IGOR PUERTO
W-A-2	DISEÑO E IMPLEMENTACIÓN DE UN INSTRUMENTO MUSICAL PARA PERSONAS CON DISCAPACIDAD	RAQUEL VAQUER GONZÁLEZ & JAVIER ALONSO CAMPOS
W-A-3	UTILIZACIÓN DE SOFTWARE INTERACTIVO PARA EL ESTUDIO DE LA REFRIGERACIÓN.	ANGEL BARRAGÁN CERVERA
W-A-4	EASYMOUSE: UNA EXPERIENCIA DE ESTANCIA EN PRÁCTICAS Y TFG DE INGENIERÍA EN DISEÑO DE PRODUCTO EN UN CENTRO DE PERSONAS CON DISCAPACIDAD	CRISTINA VIZCAÍNO MARTÍNEZ
W-A-5	APPLICATION OF THE SERVICE-LEARNING METHODOLOGY TO THE DEVELOPMENT OF THE END OF DEGREE PROJECT IN CHEMICAL ENGINEERING	ENRIQUE SÁNCHEZ
W-A-6	BRINGING THE FOREST TO THE CLASSROOM: DEVELOPING VIRTUAL TOURS IN FORESTRY	JOSÉ A. REQUE
W-A-7	PUNTEROS PARA PARÁLISIS CEREBRAL: UNA EXPERIENCIA DE APRENDIZAJE SERVICIO EN SEGUNDO CURSO DE INGENIERÍA DE DISEÑO INDUSTRIAL	RAÚL IZQUIERDO

## SESSION B: ENGINEERING AND GENDER.

K-B	INCLUDING GENDER PERSPECTIVE IN ENGINEERING TEACHING	NURIA SALAN
O-B-1	TOWARDS DIMINISHING THE GENDER GAP IN ENGINEERING	BEATRIZ LÓPEZ
O-B-2	LEADERSHIP ON WOMEN ENGINEERING. FROM UNIVERSITY TO WORKPLACES	ANNA PUJOL FERRAN
O-B-3	EL DIA DE LA MARMOTA	MARÍA LOURDES DOMIGUEZ
W-B-1	PERSPECTIVA DE GÉNERO EN INGENIERÍA: INNOVACIÓN SOCIAL. GENDER MAINSTREAMING IN ENGINEERING: SOCIAL INNOVATION	ROSA PUCHADES PLA
W-B-2	ACTIVIDADES PARA CREAR REFERENTES FEMENINOS EN LA INGENIERÍA	ENCINA CALVO IGLESIAS
W-B-3	GENDER DIFFERENCE IN PUBLICATION AMONG RECENT OR/MS SCI-ENTIFIC PUBLICATIONS IN TOP JOURNALS	ANDREA DITTA



## SESSION C: ENGINEERING AND DEVELOPMENT CO-OPERATION

K-C	THE POTENTIAL OF FORMAL AND INFORMAL SPACES IN ENGINEERING STUDIES TO PROMOTE GLOBAL CITIZENSHIP	CAROLA CALABUIG TORMO
O-C-1	DEVELOPMENT OF A BACHELOR'S THESIS FOLLOWING THE SERVICE-LEARNING METHODOLOGY IN AN INTERNATIONAL COOPERATION CONTEXT	VÍCTOR RODA-CASANOVA
O-C-2	EL COMPROMISO SOCIAL EN LOS ESTUDIOS DE INGENIERÍA: APRENDIZAJE BASADO EN PROYECTOS COMO ESTRATEGIA PARA LA FORMACIÓN INTEGRAL	CLAUDIA ESTELA SALDAÑA DURÁN
O-C-3	TRAINING EXPERIENCE IN THE FIELD OF DEVELOPMENT COOPERATION IN ENGINEERING: COLLABORATION BETWEEN ETHIOPIAN AND SPANISH UNIVERSITIES	LEONOR HERNÁNDEZ LÓPEZ
O-C-4	WIDENING ARCHITECTS TRAINING. PROPOSALS FROM SOCIAL RESPONSIBILITY	ALEX MITXELENA ETXEBERRIA
O-C-5	E-BETEZ, INTEGRATING THE SUSTAINABILITY AND OPEN SOURCE KNOWLEDGE IN ENGINEERING DEGREES	JOSEBA SAINZ DE MURIETA
O-C-6	REMOTE CONTROL FOR WATER TRUCKING IN COOPERATION AND ITS RELATION WITH ENGINEERING	PABLO ALCALDE CASTRO
W-C-1	MOOCS FOR DEVELOPMENT: OPPORTUNITIES AND BARRIERS	RICARDO VIDAL-ALBALATE
W-C-2	REDISEÑO DE LA ENVOLVENTE DEL CONTROLADOR DE UN EQUIPO DE BOMBEO PV PARA RIEGO EN ETIOPÍA ADAPTADO A USUARIOS FINALES Y EN EL MARCO DE UN PROYECTO DE COOPERACIÓN (+A)	LAURA MARTÍNEZ MIFSUT
W-C-3	¿POR QUÉ NO UN INGENIERO AGRÓNOMO EN COOPERACIÓN? MI EXPERIENCIA EN ETIOPÍA COMO ESTUDIANTE.	INÉS TORÁN GASCÓN

## SESIÓN D: ENVIRONMENTAL SUSTAINABILITY.

K-D	BRIDGING SUSTAINABLE DEVELOPMENT COMPETENCES TO PEDAGOGICAL APPROACHES IN HIGHER EDUCATION	RODRIGO LOZANO
-----	--	----------------

O-D-1	SUSTAINABILITY EDUCATION IN BACHELOR DEGREES OF ENGINEERING: DIAGNOSIS AND SUGGESTIONS TO PREVENT DEFICIENCIES	ALEJANDRO RODRÍGUEZ ANDARA
O-D-2	ENERGÍAS RENOVABLES PARA EL DESARROLLO RURAL: NUEVAS OPORTUNIDADES PARA LA RESPONSABILIDAD SOCIAL EN INGENIERÍA	ISABEL GIMÉNEZ GARCÍA
O-D-3	THE UNIVERSITY AS A CATALYST FOR THE INTEGRATION OF SUSTAINABLE ENGINEERING INTO PRESENT-DAY INDUSTRY	ORTZI AKIZU GARDOKI
O-D-4	CAMPUS BIZIA LAB: SERVICE LEARNING PROGRAMME FOR SUSTAINABILITY AT UNIVERSITY THROUGH STAFF-ACADEMIC- STUDENT PARTNERSHIP	AITXIBER ZALLO
O-D-5	INVOLVEMENT IN SUSTAINABLE PROJECTS AS A SOURCE OF LEARNING. EXAMPLE: SOLAR DECATHLON EUROPE	NÚRIA SÁNCHEZ- PANTOJA

W-D-1	DESIGNING AN ENVIRONMENTALLY SUSTAINABLE GREEN ROOF FOR THE BUILDING OF THE BILBAO ENGINEERING SCHOOL	ZALOA AZKORRA LARRINAGA
W-D-2	INTERVIEWING DESIGN STUDENTS ABOUT CIRCULAR ECONOMY	LAURA RUIZ-PASTOR
W-D-3	SUSTAINABILITY IN THE COMPETENCES OF MASTER'S DEGREES ON PROJECT MANAGEMENT	ÁNGELA PANEQUE DE LA TORRE
W-D-4	IMPLEMENTATION OF SUSTAINABILITY CONCEPTS ON THE SUBJECT 'MECHANICS OF MATERIALS	JUAN LUIS OSA
W-D-5	ENGINEERING STUDENTS' KNOWLEDGE AND UNDERSTANDING OF SUSTAINABLE DEVELOPMENT	ESTÍBALIZ SÁEZ DE CÁMARA
W-D-6	VIRTUAL TEST BENCH OF POWER CYCLES	BERNARDO PERIS
W-D-7	TEST BENCH FOR LOW TEMPERATURE HEAT SOURCES SIMULATION	FRANCISCO MOLÉS
W-D-8	SIMULADOR DE CICLO DE REFRIGERACIÓN PARA LA IMPLEMENTACIÓN EDUCATIVA DE LA SOSTENIBILIDAD AMBIENTA	CARLOS MATEU-ROYO
W-D-9	UTILIZACIÓN DE UN REFRIGERANTE DE MENOR PCA EN SISTEMAS DE COMPRESIÓN DE VAPOR DE R134A	ADRIÁN MOTA- BABILONI



SESSION E: CORPORATE AND BUSINESS SOCIAL RESPONSIBILITY.

K-E	THE ENGINEER AS A SOCIALLY RESPONSIBLE LEADER	JOSE JUAN CABALLERO
O-E-1	LA RESPONSABILIDAD SOCIAL ESTRATÉGICA EN LA UNIVERSIDAD. CASO DE ESTUDIO: ESCUELA TÉCNICA SUPERIOR DE INGENIEROS INDUSTRIALES DE LA UNIVERSIDAD POLITÉCNICA DE MADRID (ETSII-UPM)	SUSANA YÁÑEZ
O-E-2	LA RESPONSABILIDAD SOCIAL EMPRESARIAL ANTE LA AGENDA 2030	JORGE ANTONIO PÉREZ-PINEDA
O-E-3	SOCIAL COMMITMENT IN ENGINEERING PRACTICES	JOSE VICENTE SEGARRA MURRIA
O-E-4	THE NEED TO LEARN SOFT SKILLS TO SOLVE ENGINEERING CHALLENGES	JUAN C. SACRISTÁN ANTONI
W-E-1	INCLUDING ONE HUMANISTIC SUBJECT IN ENGINEERING CURRICULA	LUIS LÓPEZ NOZAL
W-E-2	SOCIAL COMMITMENT IN ENGINEERIG EDUCATION	MANUEL FERNÁNDEZ-LÓPEZ
W-E-3	RED DE JÓVENES: CAMBIANDO MENTES Y TRANSFORMANDO MUNDOS	CAMILO HOLGUIN

