

25th June 2025

TOOLS AND METHODOLOGIES FOR MANAGEMENT AND ANALYSIS OF SPATIAL DATA	S01-01	12:30 - 14:00H	S01-02	12:30 - 14:00H	METHODOLOGIES AND STRATEGIES BASED ON GRAPHICAL ENGINEERING
	Urban and transportation transformation in seville: the legacy of the expo'92 bridges and their projection into the ai era	Pablo Morato-Huerta, Manuel Morato-Moreno	Cad parametric geometry models: a useful tool for biomechanics and mechanobiology	Oscar Paseta, Ian Campos, Pablo Fanlo, José Manuel García-Aznar, María José Gómez-Benito	
	Improving the greenhouse spring crop classification from sentinel-2 time series in almeria (spain)	Manuel Ángel Aguilar, Fernando José Aguilar, Abderrahim Nemmaoui, Antonio Jesús Fernández-García	Impact of femoral stem positioning on bone stress and clinical outcomes in total hip arthroplasty: a voxel-based finite element study	Andrea Ariznavarreta Márquez, Nel Iglesias Rodríguez, Jorge Rocés García	
	Benchmarking artificial intelligence methods to classify greenhouse crops in almería from sentinel-2 multi-temporal images: summer/autumn campaign 2016	Abderrahim Nemmaoui, Fernando J. Aguilar, Antonio J. Fernández-García, Manuel A. Aguilar	Influence of stems and metaphyseal cones on bone stress in revision total knee arthroplasty: a voxel-based finite element study	Omar Menéndez Testa, Jorge Rocés García	
	Application of bim and facility management in historical buildings: a case study of the nave 30 of the fábrica de armas de toledo	Rocio Porras Porras (1), Fidel Lozano Galant (2), Alba María Hidalgo León (1), Francisco Javier Castilla Pascual (3), José Antonio Lozano Galant (1)	Comparative study of the dimensioning and tolerance analysis modules in several parametric 3d cad applications	Fernando Brusola (1), Ignacio Tortajada (1), Antonio Valín (2), Ángeles Esandi (2), Jorge Montalvá (1), María Moncho (1)	
	Urban quality at the university of Málaga	Noelia Muñoz Amores, Manuel Damian Marín Granados, Francisco José Ortiz Zamora	Topological optimisation of biodegradable plastic products for material reduction and surface area increase	Maidier Iturrondobeitia, Jose Camilo Suarez, Hugo Afonso, Julen Ibarretxe, Xabier Amezua, Rikardo Minguez	
	S01-03	15:30-17:00H	S01-04	15:30-17:00H	
	Remote sensing of concrete slabs: a uav-based approach using fourier transform and pca	David E. Acuña-Ureta (1), Marta Torres González (2), Andrés J. Prieto (1), Rodrigo Toro Icardi (1), Matías Armando Pineda (1), Gianfranco Pisani (1), Felipe Guíñez (1), Marcelo González Hormazábal (1), Álvaro González (1)	Analysing public bus transport networks using graphical visualization techniques based on graph theory	Marina Díaz Jiménez, Alba Ambrosio Costoya, Patricia Ruiz, Pablo Pavón Domínguez	
	Automated detection and geolocation of banana trees based on deep learning from very-high-resolution rgb uav images	Fernando J. Aguilar, Alfredo Alcayde, Marcos E. Valverde, Abderrahim Nemmaoui, Manuel A. Aguilar	Redesign of a car wheel hub with reverse engineering and computer-aided design tools	Xabier Amezua (1), Gaizka Erkizia (2), Mikel Iturrate (2), Mikel Jauregi (2), Olatz Etxaniz (1), Xabier Garikano (2), Eneko Solaberrieta (2)	MANAGEMENT OF PRODUCTS AND PROCESSES
	Design for human-baboon conflict management: animal location using a sensor network ecosystem	Marta Siguín (1,2), Roberto Casas (1,3), Justin O'Riain (4), Teresa Blanco* (1,2)	3d experience, in the design and industrialization of aircraft aerostructures: a case study	Manuel Oliva-Olvera (1), Raúl Alfaro-Pérez (1), Jorge Juan Martínez-Del Río (2), María Gloria Del Río-Cidoncha (2)	
Reconstruction of a historical climatic dataset for limón, costa rica (1886-1890): implications for energy simulation and architectural heritage analysis	Emily Vargas-Soto	Using 3dexperience in a concurrent engineering process: assembly of a turboprop engine	María Gloria Del Río-Cidoncha (1), Domingo Palma-Morales (2), Javier Rendón-Rodríguez De Molina (2), Rafael Ortiz-Marín (1), Alfonso Emilio Martínez-Del Río (1)		
Re-discovering the coquun: cartographic experiments unfolding time and space.	Irene Perez Lopez	Study of the lidinoid lattice structures as a substitute of expanded polystyrene foams (eps) in bicyclist helmets	Ramón Miralbes Buil, David Ranz Angulo, José Antonio Gómez García		

26 th June 2025	DIGITAL TOOLS AND ARTIFICIAL INTELLIGENCE	S02-01	12:30 - 14:00H	S02-02	12:30 - 14:00H	MANAGEMENT OF PRODUCTS AND PROCESSES
		Blockchain, ai and data visualization: history and evolution of design in digital archives	Martina Liboni, Francesca Mucchetti, Pier Paolo Peruccio	Engineering graphics applied to the assembly process of a single-cylinder high-pressure steam engine with a corliss valve gear	José Ignacio Rojas-Sola, Santiago Sánchez-García	
		Autocad automation through python scripting	Antonio Fernández (1), Lucía Díaz Vilariño (1), Francesco Bianconi (2)	Construction 4.0 and 3d-printed housing: innovation for seismic zones	Claudia Marcela Muñoz, Rodrigo Garcia Alvarado, Alexander Opazo Gonzalez	
		Integrating ensemble learning to classify circular city indicators to the 17 sustainable development goals: a multi-method framework for coverage and gap analysis	Nadia Falah (1), Navid Falah (2), Madelyn Marrero (1), Jaime Solis-Guzman (1)	Designing an age-friendly color palette: enhancing color perception in products and graphic information for the elderly	Maria Moncho Santonja, Jorge Montalvá Colomer, Guillermo Peris Fajarnés, Beatriz Defez, Eva Burguera Sierra, Jose Antonio Cuesta Barrios, Ignacio Tortajada Montañana, Fernando Brusola Simón	
		Procedure for solid modelling and morpho-geometric analysis of a crystalline lens using 3d scanning and digitization techniques	José Velázquez, Dolores Ojados, Adrián Semitiel, Francisco Sáez, Francisco Cavas	Semiactive orthosis for the treatment of equinus foot	Javier Martín Domínguez	
		Development of a digital twin for industrial engineering: connecting sensors and actuators to ar/vr applications	Valentin Gomez-Jauregui, Noemi Barral-Ramon, Jose-Andres Diaz-Severiano	Augmented reality for machinery layout optimisation in olive oil mills: an innovative approach	Diego Francisco García-Molina, Jorge Manuel Mercado-Colmenero, Adonis Jose Pabuena-García, Cristina Martín-Doñate	
		S02-03	15:30-17:00H	S02-04	15:30-17:00H	GRAPHICAL ENGINEERING IN SUPERIOR EDUCATION
		Design and development of an affordable, ergonomic bionic hand for improved daily functionality	Isabel Seguí Verdú (1), Alba Rey De Viñas Redondo (2), Larisa Dunai (1), Luis Taroncher Pellicer (1) 1. Departamento Ingeniería Gráfica. Universitat Politècnica de València, Valencia, Spain 2. ETSII. Universitat Politècnica de València, Valencia, Spain	Analysis of consumer trends and attitudes towards repair of small household appliances in spain from a product design approach.	Pedro Rovira-Menaya, Yeray Sañudo, Laura Aguado-González, Carmelo Pina, Jorge Sierra-Pérez	
		Integration of artificial intelligence and open-source tools for intelligent natural language queries on ifc models: an accessible and collaborative solution	Norena Martín-Dorta (1), Ana Pérez-García (1), Ángel Díaz-Murillo (2) 1. Universidad de La Laguna, San Cristobal De La Laguna, Spain 2. Consultor BIM, Sevilla, Spain	Ergonomic design considerations for next-generation smart walkers: enhancing mobility and safety ergonomic design aspects of walkies robotic walker development	Sui Liang, Larisa Dunai, Isabel Verdú Seguí	
		Integration of artificial intelligence tools in architectural design and construction planning processes. case study of a single-family house in ecuador	Byron Andrés Morales-Chamorro (1), Eduardo Vázquez-López (2) 1. Universidad Católica Andrés Bello, Caracas, Venezuela 2. Universidad de Sevilla, Sevilla, Spain	Review of plm integration in the models, methods, and artifacts of pmbok	Alejandro Agote Garrido, Alejandro Manuel Martín Gómez, Juan Ramón Lama Ruiz	
		Custom geometrical reconstruction of human corneal surfaces based on nurbs curve optimization by an evolutionary algorithm: a preliminary study.	Francisco L. Sáez Gutiérrez, José S. Velázquez Blázquez, Francisco Cavas Martínez Technical University of Cartagena, Cartagena, Spain	Data-driven design for optimized running shoe midsoles using additive manufacturing and ai-based lattice adaptation	Ana Maria De Juan Iglesias, Daniel Moreno Nieto, Lucía Rodríguez Parada, Daniel Moreno Sanchez	
		Artificial intelligence as a tool for translating abstract languages into architecture	Cintya Eva Sánchez Morales, José Carlos López Cervantes ETSAG UGR, Granada, Spain	Relief interpretation with twinmotion	Sergio Andrés Medina Rodríguez	

27 th June 2025	GRAPHICAL ENGINEERING IN SUPERIOR EDUCATION	S03-01	9:30-11H	S03-02	9:30-11H	DIGITAL TOOLS AND ARTIFICIAL INTELLIGENCE
		Neb design: design of a teaching methodology to implement the new european bauhaus in higher technical studies. Project-based learning for the design, modeling, calculation, augmented reality and physical model of a mining derrick structure Exploring the integration of bim in civil engineering education: a look at current practices in spain Application of generative artificial intelligence in intersection design: a case study in road design	Mar Melgarejo-Torralba, Sandra Planes-Tenza, Dolores Parras-Burgos, Emilio López-Salmerón, Francisco J.F. Cañavate, Daniel G. Fernández-Pacheco Noemi Barral-Ramon, Jose-Andres Díaz-Severiano, Valentin Gomez-Jauregui Cristina Manchado, Pedro Lastra-González, Borja Arroyo, César Otero Rubén Abad Rubén Abad, Irene Sentana Irene Sentana, Juan Llorca-Schenk Juan Llorca-Schenk María Senderos Laka, Maialen Sagarna Aranburu, José Javier Pérez Martínez, Fernando Mora Martín, Juan Pedro Otaduy Zubizarreta, Mireia Roca Ceberio, Ana Azpiri Albistegui	Enhanced virtual reality reconstruction: deep learning approaches for realistic architectural space representation Towards a flexible vr-based product evaluation system: a customizable approach for designers Smart pedestrian signaling devices Integrating 3D Printing Parameters into Technical Drawings: A Framework for Seamless Additive Manufacturing	Riccardo Tavalare (1), Elena Cabrera Revuelta (2), Cesare Verdoscia (1) Almudena Palacios-Ibáñez, Laura Ruíz-Pastor, Carlos García-García, Francisco Felip-Miralles, Julia Galán Noelia Muñoz Amores, Manuel Damián Marín Granados, Francisco José Ortíz Zamora Faust Séculi , Fernando Julián , F. Xavier Espinach , Manel Alcalà , Joan Ximinis	
		Color characterization and cataloging of historic buildings in the ensanche of san sebastián: an educational and research experience		Use of lidar maps for the analysis of differential movements in buildings	Rubén Darío Cano Marín , Juan Manuel Delgado Sánchez	TOOLS AND METHODS FOR MANAGEMENT AND ANALYSIS OF SPATIAL