

are required to be present beside their poster at 12:10 PM and 3:10 PM

	GRAPHICAL ENGINEERING IN SUPERIOR EDUCATION	METHODOLOGIES AND STRATEGIES BASED ON GRAPHICAL ENGINEERING	DIGITAL TOOLS AND ARTIFICIAL INTELLIGENCE	MANAGEMENT OF PRODUCTS AND PROCESSES	TOOLS AND METHODOLOGIES FOR MANAGEMENT AND ANALYSIS OF SPATIAL DATA
<b>25-1</b>	Evaluating the integration of artificial intelligent tools in graphical engineering courses <b>Diego-José Guerrero-Miguel,</b> María-Belén Prendes-Gero, Ruth Fernández García, Marta Menéndez Fernández, Rafael Rodríguez-Galindo Díez, Pablo Pando Cerra	<b>25-5</b> A graphical method for determining the optimal position of the rtg carriage for dismantling by lowering optimal centroid. <b>Raquel Gómez Cabrera,</b> Juan Jesús Lara Sánchez	<b>25-8</b> Assessing the current use of isolated buildings in andalusia through ai techniques <b>Cristina Torrecillas,</b> Francisco J. Ramos-Sánchez, Natalia Martínez-Gómez	<b>25-16</b> Modeling and digital fabrication of the f50 sailgp catamaran using catia v5 and fdm technology <b>José Serrano Gómez,</b> Manuel Morato-Moreno	<b>25-25</b> Modelling of historical buildings using 3d gis: the defensive wall of seville as a representative case study. <b>Francisco M. Hidalgo-Sánchez,</b> David Rubia-Caba, Emilio J. Mascort-Albea, Margarita Infante-Perea, Lorenzo Rodríguez-Ramírez.
<b>25-2</b>	Graphical expression in engineering: implementation of pbl and 3d printing as innovative pedagogical tools <b>Idoia San Sebastian ,</b> Gaizka Erkizia, Eva Rodríguez , Maider Iturrondobeitia	<b>25-6</b> Graphical techniques applied to the evaluation of animal movement <b>José Manuel Valderrama-Zafra,</b> Raúl Torres-Román, Antonia Oya-Lechuga	<b>25-9</b> Innovating creativity: the role of generative artificial intelligence in graphic design education <b>Mikki Schindler</b>	<b>25-17</b> From ux to design for wellbeing: which research is needed to develop pleasing products <b>Aurora Berni,</b> Yuri Borgianni	<b>25-26</b> Urbanization and circularity: analyzing the role of urban growth in seville's circular economy transition <b>Nadia Falah,</b> Navid Falah, Jaime Solís-Guzman, Madelyn Marrero
<b>25-3</b>	Integrating cedg into descriptive geometry education: effects on academic performance <b>Laura García-Ruesgas,</b> Manuel Prado-Velasco	<b>25-7</b> Flat patterns of general developable ruled surfaces in cedg <b>Manuel Prado-Velasco,</b> Laura García-Ruesgas	<b>25-10</b> Data-driven approaches in engineering visualization for sustainable optimization of advanced construction materials <b>Patricia Abril-Jiménez,</b> Lucía Garijo Alonso, Sofia Sánchez-Mateo	<b>25-18</b> Sustainable design using technical-functional and socio-collaborative tools <b>Irene Ramos Lapesa,</b> José Luis Santolaya Sáenz, Anna Biedermann, Natalia Muñoz López	<b>25-27</b> Methodology for comparing the sustainability of different renewal models applied in retail spaces <b>Aranzazu Fernández-Vázquez,</b> Anna María Biedermann, Natalia Muñoz López, José Luis Santolaya Sáenz
<b>25-4</b>	An educational innovation project: learn to communicate with maps <b>Carmen Marín ,</b> Victor Cicuéndez, Mateo Pastrana, Alfonso Gómez, Cristina Velilla		<b>25-11</b> Spatial data analysis towards achieving an artificial access consciousness (aac) using knowledge graphs (kg), large language models (llm), and graph-driven reasoning (gdr) <b>Javier Arévalo,</b> Juan I Latorre, Francisco J Flor, Eduardo Martínez	<b>25-19</b> Use of finite elements to verify the aptitude of the iberian falcata for combat <b>Emilio Ramírez-Juidías</b>	<b>25-28</b> Critical comparison between professional scanner and 3d scanning mobile application Marta Torres González, <b>Margarita Infante Perea,</b> Concepción Cantillana Merchante, José Carlos Galán Jiménez, Miguel León Muñoz
			<b>25-12</b> Reframing urban morphology for ai. integrating qualitative datasets for specialized artificial intelligence. <b>Caterina Juric,</b> Ezgi Nur Güngör, Alessandro Lovisolo	<b>25-20</b> Fabrication of an additive manufactured mold for the production of a drone engine cover using the infusion composites process <b>Clara Luna Martin Compaired,</b> Ramon Miralbes, David Ranz, Jose Antonio Gomez	<b>25-29</b> Preserving the legacy: sfm-based photogrammetric reconstruction of the industrial olive oil heritage at hacienda de quinto. <b>Carmen Marín Buzón,</b> Antonio Miguel Pérez Romero, Manuel José León Bonillo, Orly Enrique Apolo
			<b>25-13</b> Advanced analysis of sashimono: a traditional japanese woodworking technique <b>Jose-Andres Diaz-Severiano,</b> Valentin Gomez-Jauregui, Noemi Barral-Ramon	<b>25-21</b> Assessing the sustainability of a childcare service in a rural area of zaragoza (spain) <b>Laura Diago Ferrer,</b> Jose Luis Santolaya Sáenz, Natalia Muñoz López	<b>25-30</b> Machine learning-based classification of public works using user positioning data from gnss correction services <b>Francisco J Ramos-Sánchez,</b> Cristian Nieto Pareja, Cristina Torrecillas
			<b>25-14</b> Exploring large language models for cad automation: a case study with catia scripting Héctor De Pablo Pascual, Santiago Delgado Vaquero, <b>David Escudero-Mancebo</b>	<b>25-22</b> Guidelines for the successful design of products with environmental certifications Lesly Sierra-Fontalvo, <b>Yuri Borgianni ,</b> Aurora Berni , Laura Ruiz-Pastor	
			<b>25-15</b> Generative artificial intelligence applied to the parametric drawing of floor plans. origins, evolution and current state. <b>Fernando Vilaplana</b> Universidad de Sevilla, Sevilla, Spain	<b>25-23</b> Optimization of printing parameters for a ceramic-adapted 3d printer <b>Ana Pilar Valerga Puerta,</b> Elena Cabrera-Revuelta, Nicolás Morales Blanco	
				<b>25-24</b> Integration of smart products into product lifecycle management (plm): strategies for data capture and modeling <b>Teresa Ramos-Calderón,</b> M <sup>a</sup> Jesús Ávila-Gutiérrez, Juan Ramón Lama-Ruiz	

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<p><b>26-1</b></p> <p>"smart heartbeats". a student project developed within the framework of multidisciplinary teaching</p> <p><b>Luis Taroncher</b>, Aitana Vanaclocha, Ana García, Alejandro Rodríguez-Ortega, Sandra Munera</p> <p><b>26-2</b></p> <p>Learning to teaching industrial drawing: comparison with traditional methods</p> <p>Diego Francisco García-Molina, <b>Juan Manuel Montalvo-Gil</b>, Daniel Díaz-Perete, Eduardo Bonet-Martínez, Francisco Javier Carrasco-Vila, Bartolomé Carrasco-Hurtado</p> <p><b>26-3</b></p> <p>Graphical expression in civil engineering degrees: content and methodologies</p> <p><b>Pedro Lastra-González</b>, Borja Arroyo Martínez, Cristina Manchado, César Otero</p>	<p><b>26-4</b></p> <p>3d geometric and visual modeling applied to organic morphologies.</p> <p><b>Carmelo López</b>, Alberto Cobos, Juan Antonio Peña, Sergio Sánchez-Fenollosa</p> <p><b>26-5</b></p> <p>Design, geometric optimization and generative design and prototyping of a bicycle stem using three software</p> <p><b>Gaizka Erkizia</b>, Xabier Amezua, Mikel Iturrate, Mikel Jauregi, Olatz Etxaniz, Xabier Garikano, Eneko Solaberrieta</p> <p><b>26-6</b></p> <p>Comparative of estimation of crown volume of fruit trees by traditional methods and terrestrial lidar.</p> <p><b>Manuel José León Bonillo</b>, Antonio Miguel Pérez Romero, Rubén Martínez Álvarez, Marta Díaz Vega, Carmen Marín Buzón</p>	<p><b>26-7</b></p> <p>Unlocking ai's creative potential in climate-responsive architectural design</p> <p><b>Jose Carlos Lopez Cervantes</b>, Cintya Eva Sanchez Morales</p> <p><b>26-8</b></p> <p>An analysis of the temporal consistency of the user's opinion about product design attributes: a case study with household products</p> <p><b>Carlos García-García</b>, Almudena Palacios-Ibáñez, Julia Galán, Francisco Felipe-Miralles, Manuel Contero</p> <p><b>26-9</b></p> <p>From hand-drawn to ai-enhanced: assessing the impact of ai in sketch development</p> <p><b>Sergio De La Rosa Silva</b>, Miguel-Angel Pardo-Vicente, Pedro F. Mayuet, Lucía Rodríguez-Parada</p>	<p><b>26-15</b></p> <p>Conceptual design of a collaborative nesting system for shipbuilding.</p> <p><b>Pablo Morato-Huerta</b>, Juan Ramón Lama-Ruiz, Alejandro Manuel Martín-Gómez</p> <p><b>26-16</b></p> <p>A more sustainable scooter approach using natural composite materials.</p> <p><b>David Ranz</b>, Clara Luna Martín, Carmelo Pina, Ramón Miralbes, Marcin Barbuski, José Antonio Gómez</p> <p><b>26-17</b></p> <p>Advanced design of non-pneumatic wheels for wheelchairs: simulation and manufacturing with 3d technologies</p> <p><b>Bernardo Pajares Moreno</b>, Maria Moncho, Guillermo Peris, Ismael Lengua, Beatriz Defez, David Diaz</p>	<p><b>26-22</b></p> <p>The canal de castilla in the 21st century: conservation challenges and development opportunities</p> <p><b>Angel Mariano Rodriguez Perez</b>, Julio Jose Caparros Mancera, Antonio Garcia Chica, Lucia Olmo Rodriguez, Cesar Antonio Rodriguez Gonzalez</p> <p><b>26-23</b></p> <p>Development of an application for visual exploration of hyperspectral images</p> <p><b>Sandra Munera</b>, Francisco Albert, Alejandro Rodríguez-Ortega, Jose Blasco, Nuria Aleixos</p> <p><b>26-24</b></p> <p>Geostatistical approaches for the estimation and validation of air pollution forecasting maps</p> <p><b>María Inmaculada Rodríguez-García</b>, María Gema Carrasco-García, Maria Da Conceição Rodrigues Ribeiro, Alberto Camarero Orive, Francisco Javier González-Enrique, Ignacio J. Turias Domínguez</p> <p><b>26-25</b></p> <p>Tree volume calculation through in-field photogrammetry for estimating growth evolution</p> <p><b>Alejandro Rodríguez-Ortega</b>, Beatriz Rey, Sergio Cubero, Ana Quiñones, Sandra Munera, Francisco Albert, Luis Taroncher, Jose Blasco, Nuria Aleixos</p> <p><b>26-26</b></p> <p>Uncertainty of 3d modelling of an overhead power line using a geographic information system</p> <p><b>Laia Miravet Garret</b></p> <p><b>26-27</b></p> <p>3d indoor evacuation plans from point clouds for visually impaired people.</p> <p><b>Lucía Díaz Vilariño</b>, Rubén Fernández Abeijón, Jesús Balado, Jose Antonio Alonso Rodríguez, Jose Luis González Cespón</p> <p><b>26-28</b></p> <p>Using lidar to model 3d tree structures and to estimate tree metrics in almond crops</p> <p>Mateo Pastrana, Victor Cicuéndez, <b>Cristina Velilla</b>, Carmen Marín, Alfonso Gómez</p>	<p><b>26-30</b></p> <p>Digitisation and geometry of the arches of the new bridge of ronda: comparative morphological analysis with other historic bridges and aqueducts</p> <p><b>Daniel Torres-Blanco</b>, M. Carmen Ladrón-De-Guevara-Muñoz, Rafael Enrique Hidalgo Fernández</p>
		<p><b>26-10</b></p> <p>AI for automated processes in cad: from the origins to the latest trends in the area and how to apply it in the cad lessons.</p> <p><b>Eva Rodríguez Hortelano</b>, Maider Iturrondobeitia Ellacuria</p> <p><b>26-11</b></p> <p>Design, modeling, and optimization of a biomechanical finger for a pediatric prosthetic hand</p> <p><b>Pablo Medina-Coello</b>, Blas Salvador-Domínguez, Ignacio Díaz-Cano, Rogelio Del Pino Algarra, Arturo Morgado-Estevez</p> <p><b>26-12</b></p> <p>Digital twins models applied to cxl treatments of corneas affected with keratoconus.</p> <p><b>Jose González</b>, Carmelo Gómez, Francisco Cavas</p> <p><b>26-13</b></p> <p>Discrepancies in corneal material parameter estimation: comparing tensile and inflation tests in biomechanical modeling</p> <p><b>José González Cabrero</b>, Carmelo Gómez, Francisco Cavas</p> <p><b>26-14</b></p> <p>Design of wearable telecare devices for older adults: emotional, social, and cognitive challenges</p> <p><b>Eva Tausiet</b>, Roberto Casas, Teresa Blanco</p>	<p><b>26-18</b></p> <p>Transforming andalusia's industrial sector through eco-design: new timber construction systems for multi-storey buildings</p> <p><b>Antonio Jesús Rodríguez Pérez</b>, Antonlino Gallego Molina, Lázuli Fernández Lobato, Juan Franquelo Soler</p> <p><b>26-19</b></p> <p>Design and implementation of a 3d-printed outlet cover for an open turbine in irrigation systems</p> <p><b>Antonio García Chica</b>, Julio Jose Caparroz Mancera, Angel Mariano Rodríguez Perez, Cesar Antonio Rodríguez González</p> <p><b>26-20</b></p> <p>Mechanical characterization of compression-molded discontinuous carbon fiber/epoxy composites</p> <p><b>Javier Martín Domínguez</b>, Patricia Mora Segado, Guillermo Plaza García</p> <p><b>26-21</b></p> <p>Comparison of photosensitive resins and filaments for additive 3d printing of orthopedic devices</p> <p><b>Elena Arce</b>, Rosa Devesa-Rey, Roi Paineira-Villar, Raquel Leirós-Rodríguez, Bibiana Trevisión-Redondo, Ana García-Diez</p>	<p><b>26-29</b></p> <p>Gis-ahp based study of a power generation plant in the province of huelva (spain)</p> <p><b>José-Lázaro Amaro-Mellado</b>, Gerard Paulet-Alòs</p>	

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<p><b>27-1</b></p> <p>Functional dimensioning based on a 3d nominal model</p> <p><b>M Ángeles Esandi-Baztan,</b> Antonio Valin, Fernando Brusola</p> <p><b>27-2</b></p> <p>Application of multiple simultaneous methodologies in the realisation of cad practices.</p> <p><b>Rocío Rodríguez,</b> Rubén Rodríguez, Juan Fernández, Manuel Pablo Rubio, Pedro Hernández</p> <p><b>27-3</b></p> <p>Support of 3d printing in the teaching of graphic expression subjects in engineering in engineering degrees</p> <p><b>Manuel Ignacio Bahamonde García</b></p>	<p><b>27-4</b></p> <p>Topology optimization of the swingarm of a motorbike</p> <p><b>Xabier Amezua,</b> Gaizka Erkizia, Haritz Uriarte, Mikel Iturrate, Olatz Etxaniz, Mikel Jauregi, Xabier Garikano, Eneko Solaberrieta 1. University of the Basque Country</p> <p><b>27-5</b></p> <p>Meshing strategies for cfd simulations of lubricated mechanical components in open-source software</p> <p><b>Lorenzo Maccioni,</b> Franco Concli</p>	<p><b>27-6</b></p> <p>Innovation in digital health and assistance: from wearable devices to integrated care ecosystems</p> <p><b>Eva Tausiet,</b> Alvaro Marco, Roberto Casas, Teresa Blanco</p> <p><b>27-7</b></p> <p>Artificial intelligence in museums: an overview of facial expression analysis techniques in museum-space-visitor interaction</p> <p><b>Giusi Castaldo,</b> Elena Laudante, Elidia Beatriz Blázquez-Parra, Enrique Dominguez Merino , Mario Buono</p> <p><b>27-8</b></p> <p>Facial scanning protocol in preterm newborns for the manufacture of custom nasal masks</p> <p><b>Antonio Martín</b></p> <p><b>27-9</b></p> <p>Building a digital twin of the roman public works heritage in hispania</p> <p><b>Antonio Alfonso Arcos Álvarez,</b> Ángela Moreno Bazán, Jesús María Alonso Trigueros, Salvador Senent Dominguez</p> <p><b>27-10</b></p> <p>Designing digital twins for smart climate control in pig farming: applying iot and lora technology to modernize farm facilities</p> <p><b>Pablo Bosque,</b> Miguel Ángel Torres, Ignacio Martínez, Jorge Sierra</p> <p><b>27-11</b></p> <p>Remote identification of biofouling on submerged surfaces: image analysis and deep learning-based approaches</p> <p><b>Emmanuele Barberi,</b> María Francesca Alberghina, Luciana Randazzo, Michela Ricca, Felice Sfravara</p> <p><b>27-12</b></p> <p>Integrating AI and Voice Technology for Efficient Industrial Drawing Evaluation</p> <p><b>Ubieto-Artur, Pedro;</b> Rollo-Sánchez, Cristina; García-Hernández, César.</p>	<p><b>27-13</b></p> <p>Study of dimensional tolerances in additive manufacturing using commercial equipment</p> <p><b>Eduardo Vázquez López,</b> Francisco Andrés Valderrama Gual, Jose ángel Sevillano Caraballo, Pablo Sánchez Jiménez</p> <p><b>27-14</b></p> <p>Moving to organic goods and materials to reduce global warming potential emissions.</p> <p><b>Sara Barandiaran Oliveras,</b> Orti Akizu-Gardoki, Cristina Peña Rodríguez, Rikardo Minguez, Ertantz Lizundia Fernández</p> <p><b>27-15</b></p> <p>Optimising rheology and printability of a natural hydrogel for 3d bioprinting</p> <p><b>Alfonso Carlos Marcos Romero,</b> David Picado Tejero, Laura Mendoza Cerezo, Juan Pablo Carrasco Amador, Jesús Manuel Rodríguez Rego</p> <p><b>27-16</b></p> <p>Modelling and additive manufacturing of gelma-based bioinks applications in bioengineering</p> <p><b>Laura Mendoza Cerezo,</b> Francisco De Asís Iñesta Vaquera, Juan Pablo Carrasco Amador, Alberto Moreno Becerro, Jesús Manuel Rodríguez Rego</p> <p><b>27-17</b></p> <p>Design and manufacture of a device for the transport of biological material in 3d bioprinting</p> <p><b>Francisco Jesús Moral García,</b> Alfonso Carlos Marcos Romero, Jaime González Domínguez, Emiliano Pérez Hernández, Juan Carlos Gómez Blanco, José Blas Pagador Carrasco</p> <p><b>27-18</b></p> <p>A look at energy efficiency and sustainability in industrial agri-food projects through engineering graphics and eco-design</p> <p><b>Fernando Gómez-Hermosa,</b> Lázuli Fernández-Lobato, M.Carmen Ladrón-De-Guevara-Muñoz, Yaiza López-Sánchez, Elidia Beatriz Blázquez-Parra</p> <p><b>27-19</b></p> <p>Integration of graphic information with performance data to be used in built digital models</p> <p><b>Aitor Aragón Basabe, Amparo Verdu-Vazquez,</b> Mercedes Valiente Lopez, Marcos García Alberti</p> <p><b>27-20</b></p> <p>obtaining layout in a simple way</p> <p><b>Jose Luis González-Cespon</b></p> <p><b>27-21</b></p> <p>Process of modeling a three-phase steam engine using 3dexperience student software</p> <p><b>Rafael Ortiz-Marín,</b> María Gloria Del Río-Cidoncha, Francisco Javier Melero-Morales, Alfonso Emilio Martínez-Del Rio</p>	<p><b>27-22</b></p> <p>Landscape restoration of the murcian huerta: integration of the barraca as a prototype of minimal and sustainable housing</p> <p><b>Pedro Pina Ruiz,</b> Tomas Gil Lopez, <b>Amparo Verdu-Vazquez,</b> Sebastian Alcaraz Garcia</p> <p><b>27-23</b></p> <p>Geometric analysis of san esteban church: new perspectives through 3d modeling</p> <p><b>Margarita Infante Perea,</b> Gregorio Manuel Mora Vicente, Concepción Cantillana Merchante, José Carlos Galán Jiménez</p> <p><b>27-24</b></p> <p>Optimization of a uav lidar flight plan to maximize lidar beam reflections on the ground under canopy</p> <p><b>Juan José González- Quiñones,</b> Juan Francisco Reinoso-Gordo, Francisco Javier Ariza-López, Manuel Antonio Ureña-Cámara</p>	<p><b>27-25</b></p> <p>Design of an evolving cot convertible into a montessori bed</p> <p><b>Aída López López</b></p>