

Ingeniería Civil

Áreas de conocimiento: Tecnologías del Medio Ambiente; Ingeniería del Terreno; Ingeniería e Infraestructuras de los Transportes; Ingeniería Eléctrica

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Profesorado: CU: 7 PTU: 15, PTEU: 0; PDI Contratado y Otros: 28

Tesis leídas

- DISEÑO DE HERRAMIENTAS DE APOYO A LA GESTIÓN DE ESPACIOS NATURALES PROTEGIDOS: EL CASO DEL SERVICIO ECOSISTÉMICO DE RECREACIÓN.

Doctorando: Moreno Llorca, Ricardo Antonio

Director: Ángel Fermín Ramos Ridao y Victor J. García Morales

Fecha de lectura: 08/07/2022

Grupos de Investigación.

RNM121 INVESTIGACIONES MEDIOAMBIENTALES: RIESGOS GEOLÓGICOS E INGENIERÍA DEL TERRENO

- Responsable: CLEMENTE IRIGARAY FERNÁNDEZ

RNM913 Luminotecnia para la Seguridad y la Sostenibilidad

- Responsable: ANTONIO MANUEL PEÑA GARCÍA

TEP968 TECNOLOGÍAS PARA LA ECONOMÍA CIRCULAR

- Responsable: MONTSERRAT ZAMORANO TORO

TEP239 TECNOLOGÍAS PARA LA GESTIÓN Y TRATAMIENTO DEL AGUA

- Responsable: M. ANGEL GÓMEZ NIETO

TEP246 TRANSPORTE Y SEGURIDAD

- Responsable: JUAN DE OÑA LÓPEZ

Dirección y participación en Proyectos I+D

- 2023 Evaluación Prospectiva a Escalas Climáticas del Estado Morfo-hidrodinámico de Sistemas Estuarinos: Oportunidades de Sostenibilidad (EPICOS), Plan Andaluz de Investigación, Desarrollo e Innovación (PAIDI 2020). Convocatoria 2020., 01/01/2023-31/12/2024

Investigador ASUNCION BAQUERIZO AZOFRA

- 2023 The COntribution of Space-Time variability of ebullitive and diffusive fluxes to the Uncertainty in Methane emission estimates from Mediterranean Reservoirs (COSTUMER), Proyectos De Excelencia, 16/01/2023-28/02/2026

Investigador/a FRANCISCO JOSÉ RUEDA VALDIVIA

Investigador CINTIA LUZ RAMÓN CASAÑAS

- 2022 DIRECTRICES PARA LA IMPLEMENTACIÓN DE ZONAS DE BAJAS EMISIONES EN CIUDADES DE TAMAÑO MEDIANO Y PEQUEÑO A TRAVÉS DE UN ENFOQUE MULTI-AGENTE Y MULTI-CIUDAD (LEZIPA), Convocatoria Proyectos de Generación de Conocimiento 2021, 01/09/2022-31/08/2025

Investigador FRANCISCO JAVIER CALVO POYO

- 2022 Combined anaerobic digestion and composting system for swine manure: removal of antibiotics and their resistance (RECOSWINE), «Proyectos Estratégicos Orientados a la Transición Ecológica y a la Transición Digital» 2021, 01/12/2022-31/12/2024

Investigador/a JAIME MARTÍN PASCUAL

Contratos de investigación

- 2023 Caracterización de las Diferentes Corrientes de Agua Residual y propuesta de Alternativas para depuración Biológica, ART. 68-83, 16/02/2023-15/08/2023

Responsable JORGE IGNACIO PÉREZ PÉREZ

Responsable M. ANGEL GÓMEZ NIETO

- 2022 Reducción de la Huella Energética de un Sistema de Aireación Prolongada Mediante Control de la Transferencia de Oxígeno: Aplicación del Sistema Off-Gas, ARTÍCULO 83 LOU, 10/05/2022-09/06/2022

Responsable JORGE IGNACIO PÉREZ PÉREZ

Responsable M. ANGEL GÓMEZ NIETO

- 2022 Aplicación de un modelo térmico para la optimización del proceso de fangos activos, ART. 68-83, 23/11/2022-22/11/2023

Responsable JORGE IGNACIO PÉREZ PÉREZ

Responsable M. ANGEL GÓMEZ NIETO

- 2022 Asesoramiento en la Definición de la Campaña Analítica y de Aforos para las Aguas Residuales del Aeropuerto de Valencia, ART. 68-83, 22/11/2022-30/11/2022

Responsable JORGE IGNACIO PÉREZ PÉREZ
Responsable M. ANGEL GÓMEZ NIETO

Patentes solicitadas

- 2022 Ponencia en Congreso: Diseño de nuevas herramientas moleculares útiles en la prevención de la diseminación de genes de resistencia a antibióticos en plantas de tratamiento de aguas residuales, XIII reunión del grupo de Microbiología molecular de la SEM, 07/09/2022, Granada, España, Congreso ALEJANDRO GONZÁLEZ MARTÍNEZ

Publicaciones en revistas

- 2023 Artículo: Providing a feasible energy retrofitting technique based on polyurethane foam injection to improve windows performance in the building stock, *Energy and Buildings*, 278, 112595, 1-14
CARMEN DÍAZ LÓPEZ
- 2023 Artículo: Sensitivity analysis of trends in environmental education in schools and its implications in the built environment, *Environmental Development*, 45, 100795, 1-19
CARMEN DÍAZ LÓPEZ
- 2023 Artículo: Penetrative Convection Modifies the Dynamics of Downslope Gravity Currents, *Geophysical Research Letters*, 50, e2022GL100633, -
CINTIA LUZ RAMÓN CASAÑAS
- 2023 Artículo: OVERCONSOLIDATED FLYSCH-TYPE CLAYS. ENGINEERING CONSIDERATIONS FOR THE STRAIT OF GIBRALTAR TUNNEL PROJECT, *Soils and Rocks*, 46, 1, 1-10
FRANCISCO LAMAS FERNÁNDEZ
- 2023 Artículo: Characterization of the Products of the Catalytic Pyrolysis of Discarded COVID-19 Masks over Sepiolite, *Applied Sciences*, 13, 5, 3188-
MONTSERRAT ZAMORANO TORO
- 2023 Artículo: Management of Used COVID-19 Personal Protective Equipment: A Bibliometric Analysis and Literature Review, *Applied Sciences*, 13, 4, 2377-
MONTSERRAT ZAMORANO TORO
- 2023 Artículo: Multi-criteria assessment model on environmental ergonomics for decision-making in schoolyards based on remote-sensing and GIS resources, *Sustainable Cities and Society*, 92, 104481, 1-14
CARMEN DÍAZ LÓPEZ
- 2023 Artículo: A Study on the Parametric Design Parameters That Influence Environmental Ergonomics and Sustainability, *Sustainability*, 15, 6304, 1-30
CARMEN DÍAZ LÓPEZ
- 2023 Artículo: Building the Foundation for a Necessary Debate: Projectification of Society, *Systems : Open Access Journal*, 11, 4, 1-23
MARÍA BEGOÑA MORENO ESCOBAR
- 2023 Artículo: Description of new single-chamber continuous-flow reactors of aerobic granular sludge: Technical and biological study, *Journal of Environmental Chemical Engineering*, 11, , 109938-
ALEJANDRO GONZÁLEZ MARTÍNEZ
- 2023 Artículo: Simultaneous removal of nitrate and pesticides from contaminated groundwater using aerobic granular biomass technology, *Journal of Environmental Chemical Engineering*, 11, , 109527-
ALEJANDRO GONZÁLEZ MARTÍNEZ
- 2023 Artículo: Urban Waste: Visualizing the Academic Literature through Bibliometric Analysis and Systematic Review, *Sustainability*, , , -
ANGEL FERMIN RAMOS RIDAO
- 2023 Artículo: Analysis of the evolution of ultra-filtered water quality in a drinking water distribution system by particle size distribution: influence of pre-ozonation, *Water Environment Research*, 95, 2, -
JORGE IGNACIO PÉREZ PÉREZ
M. ANGEL GÓMEZ NIETO
- 2023 Artículo: Evaluation of tectonic activity in the Kopongo area, southwestern Cameroon: insights from geomorphic indices, remote sensing, and GIS, *Arabian Journal of Geosciences*, 16, 175, -
RACHID EL HAMDOUNI JENOUÏ
- 2023 Artículo: How do road infrastructure investments affect Powered Two-Wheelers crash risk?, *Transport Policy*, , , -
FRANCISCO JAVIER CALVO POYO
JUAN DE OÑA LÓPEZ
- 2022 Artículo: The use of Recycled Aggregates in the Construction Sector: a Scientific Bibliometric Analysis, *Materiales de Construcción*, 72, 345, 1-19
MONTSERRAT ZAMORANO TORO
- 2022 Artículo: Development of overturning circulation in sloping waterbodies due to surface cooling,

- Journal of Fluid Mechanics, 930, A18, -
CINTIA LUZ RAMÓN CASAÑAS
- 2022 Artículo: Passive action strategies in schools: A scientific mapping towards eco-efficiency in educational buildings, Journal of Building Engineering, 45, 103598, 1-20
CARMEN DÍAZ LÓPEZ
- 2022 Artículo: Seasonality of density currents induced by differential cooling, Hydrology and Earth System Sciences, 26, , 331-353
CINTIA LUZ RAMÓN CASAÑAS
- 2022 Artículo: Flushing the Lake Littoral Region: The Interaction of Differential Cooling and Mild Winds, Water Resources Research, 58, e2021WR030943, -
CINTIA LUZ RAMÓN CASAÑAS
- 2022 Artículo: SDGwashing: a critical view of the pursuit of SDGs and its relationship with environmental performance, Journal of Environmental Planning and Management, , , -
FRANCISCO SERRANO BERNARDO
- 2022 Artículo: Sustainable tunnel lighting: One decade of proposals, advances and open points, Tunnelling and Underground Space Technology, 119, 1, 104227-
ANTONIO MANUEL PEÑA GARCÍA
- 2022 Artículo: Design of a Surface Plasmon Resonance CO Sensor, Sensors, 22, , -
OVIDIO RABAZA CASTILLO
- 2022 Artículo en prensa: A method to characterize climate, Earth or environmental vector random processes, Stochastic Environmental Research and Risk Assessment, , , -
ASUNCION BAQUERIZO AZOFRA
- 2022 Artículo: Using machine learning techniques for architectural design tracking: An experimental study of the design of a shelter, Journal of Building Engineering, 51, , 104223-
CARMEN DÍAZ LÓPEZ
- 2022 Artículo: Biological removal processes in aerobic granular sludge for treating synthetic hospital wastewater: Effect of temperature, Journal of Water Processing Engineering, 47, , 102691-
ALEJANDRO GONZÁLEZ MARTÍNEZ
- 2022 Artículo: Novel application of aerobic granular biofilm systems for treating nitrate-polluted groundwater at low temperature: Microbial community and performance, Journal of Environmental Chemical Engineering, 10, , 107818-
ALEJANDRO GONZÁLEZ MARTÍNEZ
- 2022 Artículo: Effects of sulphur amino acids on the size and structure of microbial communities of aerobic granular sludge bioreactors, Amino Acids, , , -
ALEJANDRO GONZÁLEZ MARTÍNEZ
- 2022 Artículo: The effect of widening longitudinal road markings on driving speed perception, Transportation Research. Part F: Traffic Psychology and Behaviour, 88, , 141-154
FRANCISCO JAVIER CALVO POYO
JUAN DE OÑA LÓPEZ
LAURA GARACH MORCILLO
- 2022 Artículo: Chlorination by-products formation in a drinking water distribution system treated by ultrafiltration associated with pre-ozonation or coagulation/flocculation, Journal of Water Processing Engineering, 47, , 102779-
JORGE IGNACIO PÉREZ PÉREZ
M. ANGEL GÓMEZ NIETO
- 2022 Artículo: Occurrence of antibiotics and antibiotics resistant bacteria (ARB) in the Nervión river, Chemosphere, 288, 1, 132479-
JORGE IGNACIO PÉREZ PÉREZ
M. ANGEL GÓMEZ NIETO
- 2022 Artículo: Passive cooling strategies to optimise sustainability and environmental ergonomics in Mediterranean schools based on a critical review, Building and Environment: The International Journal of Building Science and Its Applications, 221, 109297, 1-16
CARMEN DÍAZ LÓPEZ
- 2022 Artículo: Spatial analysis of the impact of transport accessibility on regional performance: A study for Europe, Journal of Transport Geography, 102, 103371, -
FRANCISCO JAVIER CALVO POYO
- 2022 Artículo: Influence of road investment and maintenance expenses on injured traffic crashes in European roads, International Journal of Sustainable Transportation, , , -
FRANCISCO JAVIER CALVO POYO
JUAN DE OÑA LÓPEZ
- 2022 Artículo: Investment in roads and traffic safety: linked to economic development? A European comparison, Environmental Science and Pollution Research, , , -

FRANCISCO JAVIER CALVO POYO
JUAN DE OÑA LÓPEZ

- 2022 Artículo: Microbial community structure and function of activated sludge from a wastewater treatment plant at the Polar Arctic Circle as revealed by metatranscriptomic and next-generation sequencing, *Journal of Environmental Chemical Engineering*, 10, 5, 108393-

ALEJANDRO GONZÁLEZ MARTÍNEZ

- 2022 Artículo: The dangerous transporters: A study of microplastic-associated bacteria passing through municipal wastewater treatment, *Environmental Pollution*, 314, , -

ALEJANDRO GONZÁLEZ MARTÍNEZ

- 2022 Artículo: A Bayesian data assimilation framework for lake 3D hydrodynamic models with a physics-preserving particle filtering method using SPUX-MITgcm v1, *Geoscientific Model Development*, 15, 20, 7715-7730

CINTIA LUZ RAMÓN CASAÑAS

- 2022 Artículo: Characterization of screenings from urban wastewater treatment plants: alternative approaches to landfill disposal, *Journal of Cleaner Production*, 380, 1, 134884-

JAIME MARTÍN PASCUAL

MONTSERRAT ZAMORANO TORO

- 2022 Artículo: A Review of the Energy Potential of Residual Biomass for Coincineration in Kazakhstan, *Energies*, 15, , 6482-

JAIME MARTÍN PASCUAL

MONTSERRAT ZAMORANO TORO

- 2022 Editorial: Recent Advances in Energy Efficiency of Buildings, *Applied Sciences*, 12, , 6669-

MONTSERRAT ZAMORANO TORO

- 2022 Artículo: Cool surfaces strategies emphasized on materials dimension: A review, *Applied Sciences*, 12, , 1893-

MONTSERRAT ZAMORANO TORO

- 2022 Artículo: Light Reflectance Characterization of Waste Glass Coating for Tiles, *Applied Sciences*, 12, , 1537-

MONTSERRAT ZAMORANO TORO

- 2022 Artículo: The role of faults as barriers in confined seismic sequences: 2021 seismicity in the Granada Basin (Betic Cordillera), *Tectonics*, 41, e2022TC007481, 1-26

FRANCISCO LAMAS FERNÁNDEZ

- 2022 Artículo: Promoting Sustainable and Resilient Constructive Patterns in Vulnerable Communities: Habitat for Humanity's Sustainable Housing Prototypes in El Salvador., *Sustainability*, , 352, -

CARMEN DÍAZ LÓPEZ

- 2022 Artículo: Monitoring and analytics to measure heat resilience of buildings and support retrofitting by passive cooling., *Journal of Building Engineering*, 57, , -

CARMEN DÍAZ LÓPEZ

- 2022 Artículo: Ensuring proper management of building renovation based on an optimised decision-making model: Application in schools and social housing from southern Europe., *IOP Conference Series: Earth and Environmental Science*, , , -

CARMEN DÍAZ LÓPEZ

- 2022 Artículo: Organic Waste Management and Circular Bioeconomy: A Literature Review Comparison between Latin America and the European Union, *Sustainability*, 14, , 1661-

FRANCISCO SERRANO BERNARDO

- 2022 Artículo: Bioeconomía y biodiversidad preservada en Centroamérica, *Revista de Fomento Social*, 302, , 7-21

FRANCISCO SERRANO BERNARDO

- 2022 Artículo: A Tool for the Assessment of Forest Biomass as a Source of Rural Sustainable Energy in Natural Areas in Honduras, *Sustainability*, , , -

ANGEL FERMIN RAMOS RIDAO

- 2022 Artículo: Diversity of electroactive and non-electroactive microorganisms and their potential relationships in microbial electrochemical systems: A review, *Journal of Water Processing Engineering*, 50, 103199, -

ALEJANDRO GONZÁLEZ MARTÍNEZ

- 2022 Artículo: The importance of investigating causative factors and training data selection for accurate landslide susceptibility assessment: the case of Ain Lahcen commune (Tetouan, Northern Morocco), *Geocarto International*, 37, 25, 9967-9997

RACHID EL HAMDOUNI JENOUI

- 2022 Artículo: The Suitability of UAV-Derived DSMs and the Impact of DEM Resolutions on Rockfall Numerical Simulations: A Case Study of the Bouanane Active Scarp, Tétouan, Northern Morocco, *Remote Sensing*, 14, 24, 6205-6205

RACHID EL HAMDOUNI JENOUI

- 2022 Artículo: The Impact of COVID-19 on the Sustainable Development Goals: Achievements and Expectations, International Journal of Environmental Research and Public Health, , , -
- MONTERRAT ZAMORANO TORO

Libros (con ISBN)

- 2022 Recent Advances in Energy Efficiency of Buildings: MDP, , 2022, 2076-3417
- MONTERRAT ZAMORANO TORO

Contribuciones en congresos

- 2022 Ponencia en Congreso: Experimental study on the performance of an off-shore oscillating water column considering real gas performance, 39th International Association for Hydro-Environment Engineering and Research. World Congress, 19/06/2022, Granada, Spain, Congreso
CHRISTIAN QUIROS NEBRERA
- 2022 Poster en Congreso: The effect of temperature on the treatment of wastewater high-containing pharmaceuticals by aerobic granular sludge technology, 12th MICROPOL & ECOHAZARD CONFERENCE 2022, 06/06/2022, Santiago de Compostela, España, Congreso
ALEJANDRO GONZÁLEZ MARTÍNEZ
- 2022 Poster en Congreso: Performance and microbial community structure of aerobic granular sludge system for treating sulphur amino acids-rich wastewater, 12th MICROPOL & ECOHAZARD CONFERENCE 2022, 06/06/2022, Santiago de Compostela, España, Congreso
ALEJANDRO GONZÁLEZ MARTÍNEZ
- 2022 Poster en Congreso: Proyecto RECOMAR: Caracterización y valorización de residuos asociados a la crisis sanitaria de la COVID-19 y su impacto ambiental en el medio marino, XVI Congreso Nacional del Medio Ambiente, 21/11/2022, Madrid, Congreso
MONTERRAT ZAMORANO TORO
- 2022 Poster en Congreso: Residuos de equipos de protección individual durante la pandemia de la covid y su impacto en los ecosistemas marinos, XVI Congreso Nacional del Medio Ambiente, 21/11/2022, Madrid, Congreso
MONTERRAT ZAMORANO TORO
- 2022 Sesión plenaria en Congreso: Catalytic pyrolysis of discarded COVID-19 masks over sepiolite, 22 SGEM International Scientific Conference on Earth & Planetary Sciences. GREEN SCIENCES FOR GREEN LIFE, 06/12/2022, Viena (AUSTRIA), Congreso
MONTERRAT ZAMORANO TORO
- 2022 Comunicación en congreso: The Granada 2021 seismic series. Analysis based on the relocation of the seismic series, gravity and structural geology, IV Reunión Ibérica sobre Fallas Activas y Paleosismología, 07/09/2022, Teruel, Congreso
FRANCISCO LAMAS FERNÁNDEZ
- 2022 Comunicación en congreso: Segmentation of the tectonic activity in the central and eastern Granada Basin. Geological, geophysical, and geodetical analysis, 10ª Asamblea Hispano-Portuguesa de Geodesia y Geofísica, 28/11/2022, Toledo, Congreso
FRANCISCO LAMAS FERNÁNDEZ
- 2022 Comunicación en congreso: COMUNIDADES SOSTENIBLES Y RESILIENTES EN EL SALVADOR: ACCESO DE TODAS LAS PERSONAS A VIVIENDAS SEGURAS, SALUDABLES, EFICIENTES Y CONFORTABLES¿., I Congreso Internacional: La cooperación andaluza universitaria al desarrollo comprometida con los ODS, 09/11/2022, escuela de ingeniería, Congreso
CARMEN DÍAZ LÓPEZ
- 2022 Poster en Congreso: Segmentación de la actividad tectónica en la zona central y oriental de la Cuenca de Granada. Análisis geológico, geofísico y geodésico, 10ª Asamblea Hispano-Portuguesa de Geodesia y Geofísica, 28/11/2022, Toledo, Congreso
FRANCISCO LAMAS FERNÁNDEZ
- 2022 Ponencia en Congreso: Assessing structural and parametric uncertainty in plume-lake models to resolve causal drivers. Is the circulation induced by bubble-plume oxygenation devices in a two-basin lake sufficiently strong to control interbasin exchange?, 39 IAHR World Congress, 19/06/2022, GRANADA, Congreso
FRANCISCO JOSÉ RUEDA VALDIVIA
CINTIA LUZ RAMÓN CASAÑAS
- 2022 Ponencia en Congreso: Convective regimes induced by surface cooling and topography in stratified waterbodies, 39 IAHR World Congress, 19/06/2022, GRANADA, Congreso
CINTIA LUZ RAMÓN CASAÑAS
- 2022 Ponencia en Congreso: Penetrative convection modifies the dynamics of a gravity current, 24th Annual International Workshop on Physical Processes in Natural Waters, 18/07/2022, Vancouver,



Canada, Congreso

CINTIA LUZ RAMÓN CASAÑAS

- 2022 Ponencia en Congreso: Partitioning Diffusive and Ebullitive Methane Flux Emissions from Reservoirs in Mediterranean Climates, 37th CALMS Annual Conference, 13/10/2022, Online, Congreso

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