

CURRICULUM VITAE



PERSONAL INFORMATION

Petra Amparo López-Jiménez
IAHR Vice President

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Nationality Spanish

WEBSITE http://www.upv.es/pls/oalu/sic_person.Info?p_alias=palopez&P_IDIOMA=i

PROFESSIONAL EXPERIENCE

TEACHING, RESEARCH AND POSITIONS

- December 2017 Full Professor
Universitat Politècnica de València (UPV). Camino de Vera s/n. 46002.
Valencia (Spain)
Head of Hydraulic and Environmental Engineering Department since 2016
- December 2003- Associate Professor
December 2017 Universitat Politècnica de València. Camino de Vera s/n. 46002. Valencia.
Vice-Head of Hydraulic and Environmental Engineering Dep. since 2010
Secretary of Hydraulic and Environmental Engineering Dep. since 2008
Vice-Head of Industrial Engineering Faculty since 2006
- November 2000- Assistant Professor
December 2003 Universitat Politècnica de València.
(Spain). Hydraulic and Environmental Engineering Dept.
- October 1997- Lecturer
November 2000 Universitat Politècnica de València (Spain). Hydraulic and Environmental
Engineering Dept.
- March 1995- Research Fellow
- October 1997 National Ministry of Education (Spain). Hydraulic and Environmental
Engineering Department. UPV. Spain

EDUCATION

- 2015 Habilitation for Full Professorship in Hydraulic Engineering
Spanish National Accreditation Agency
- 2001 Doctor in Industrial Engineering
Hydraulic and Environmental Engineering Program. UPV. Spain
- 1994 Industrial Engineering
Universitat Politècnica de València. Spain
- 1992 Bachelor in Combined Engineering
Coventry Polytechnic. Coventry, UK

AWARDS

- 2018 Award "Ribagua Journal" for the best scientific paper: "*Analytical model for the calculation of lateral velocity distributions in potential cross-sections*"
- 2011 Award "Efiagua Innovacion". *Modelling Anaerobic Digester*
- 1999 Award "Teaching Excellence". *Industrial Engineering Faculty*

PERSONAL COMPETENCES

Lecturing and Research experience since 1995
Postgraduate and distance learning expert

PROFESSIONAL EXPERIENCE

Collaboration with Companies Researches

UNIVERSITY MANAGEMENT

Head of the Hydraulic and Environmental Engineering Department since 2016

Vice-Head and Secretary of the Hydraulic Engineering Department since 2008-2016

Vice-Head of Industrial Engineering Faculty 2006-2008

Involved in commissions of Department, Faculty and University since 1999

Organization of more than 30 specific postgraduate courses

Director of 7 PhD Thesis and 16 Master Thesis.

Publication of 88 papers in Indexed Journals related to hydraulic engineering and environmental fluid mechanics

INTERNATIONAL PUBLICATIONS

Publication of 8 books as author and 4 books as editor

Author of 31 book chapter

Author of 150 Research Conferences Contributions with referees

Participation or leader of 51 Research projects

Reviewer for more than 15 Journals

Editorial Scientific Editor for Journal Ribagua (IAHR) and Renewable Energy (Elsevier)

Participation in 15 committees of international conferences

Vice-Chair of Working Groups in two Cost Actions (EU Projects)

MORE RELEVANT ISI-WOS
CONTRIBUTIONS

Ramos, Helena M.; Pérez-Sánchez, Modesto; Mullur Gurupr, Prajwal Shandilya ; Carraveta, Armando; Kuriqui, Alban ; Coronado-Hernández, Oscar Enrique ... López Jiménez, Petra Amparo. (2024) Energy Transition in Urban Water Infrastructures towards Sustainable Cities. *Water*, 3 (16), - . 10.3390/w16030504

Garcia-Rodriguez, Camila Andrea; Pérez-Sánchez, Modesto; Sánchez-Romero, Francisco-Javier; López Jiménez, Petra Amparo; Ramos, Helena M.. (2024) New strategies in wastewater treatment plants to evaluate the achievement of Sustainable Development Goals: a case study. *Urban Water Journal* - . 10.1080/1573062X.2024.2323962

Pérez-Sánchez, Modesto; Sánchez-Romero, Francisco-Javier; Zapata Raboso, Francisco Antonio; López Jiménez, Petra Amparo; Ramos, Helena M.. (2024) Zero discharge: An optimized strategy to improve the hydric deficit in the Mediterranean area by pumped hydro storage. Case study of Alicante, Spain. *Agricultural Water Management* (292)1 - 16. 10.1016/j.agwat.2024.108684

Ramos, Helena M.; Coronado-Hernández, Oscar Enrique; Alban Kuriqui; López Jiménez, Petra Amparo; Pérez-Sánchez, Modesto. (2023) Are digital twins improving urban-water systems efficiency and sustainable development goals?. *Urban Water Journal* - . 10.1080/1573062X.2023.2180396

Llácer-Iglesias, Rosa M.; López Jiménez, Petra Amparo; Pérez-Sánchez, Modesto. (2023) Exploring options for energy recovery from wastewater: Evaluation of hydropower potential in a sustainability framework. *Sustainable Cities and Society* (Online) (95)1 - 18. 10.1016/j.scs.2023.104576

Macías Ávila, Carlos Andrés; Sánchez-Romero, Francisco-Javier; López Jiménez, Petra Amparo; Pérez-Sánchez, Modesto. (2021) Optimization tool to improve the management of the leakages and recovered energy in irrigation water systems. *Agricultural Water Management* (258)1 - 13. 10.1016/j.agwat.2021.107223

Bayón Barrachina, Arnau; Valero Huerta, Daniel; García Bartual, Rafael Luis; Vallés Morán, F. J.; López-Jiménez, P. Amparo. (2016) *Performance assessment of OpenFOAM and FLOW-3D in the numerical modeling of a low Reynolds number hydraulic jump*. *Environmental Modelling And Software*, 8, 322 - 335. 10.1016/j.envsoft.2016.02.018

Bayón Barrachina, Arnau; López Jiménez, P. Amparo. (2015) *Numerical analysis of hydraulic jumps using OpenFOAM*. *Journal of Hydroinformatics*, 4 (17), 662 - 678. 10.2166/hydro.2015.041

Moncho Esteve, Ignacio José; Palau-Salvador, Guillermo; López Jiménez, P. Amparo. (2015) *Numerical simulation of the hydrodynamics and turbulent mixing process in a drinking water storage tank*. *Journal of Hydraulic Research*, 2 (52), 207 - 217. 10.1080/00221686.2014.989456

Mora Rodríguez, José de Jesús; Delgado Galván, Xitlali Virginia; Helena M. Ramos; López-Jiménez, P. Amparo. (2014) *An overview of leaks and intrusion for different pipe materials and failures*. *Urban Water Journal*, 1 (11), 1 - 10. 10.1080/1573062X.2012.739630

Ramos, H.M.; López-Jiménez, P. Amparo; Teyssier, C. (2013) *Optimization of Retention Ponds to Improve the Drainage System Elasticity for Water-Energy Nexus*. *Water Resources Management* (27)2889 - 2901. 10.1007/s11269-013-0322-3

MORE RELEVANT
RESEARCH PROJECTS

Development of Analytical Tools for the Characterization of the Sustainability of Hydraulic Systems Using Indicators That Define Sustainable Development Objects (PID2020-114781RA-I00). (09/01/21 - 08/31/24). Research competitive projects. STATE INVESTIGATION AGENCY.

PARTICIPATION

Atmospheric Electricity Network: coupling with the Earth System, climate and biological systems. Cost. Eu. 2016-2020

New photonic technology for the advanced detection of air and water vapour in fluids from power generation plants for the efficient management of energy resources- Hidrasense. 2015-2018

TUD COST Action TU1104. Smart Energy Regions. EU. 2012-2016

Experimental development of a new concept of vertical axis wind turbine adapted to urban environments. 2012-2014

Application of computational fluid mechanics techniques to modeling the movement of environmental flows 2010-2011

TUD Action TU0902. Integrated Assessment Technologies To Support the Sustainable Development of Urban Areas 2009-2012

Development of simulation tools for the hydraulic characterization of supply networks through water quality indicators 2007-2010

Joint modelling of supply water quality and leakage level of supply networks. 2005-2008

Production of ethanol from soldered organic household waste. Hydraulic Modelling. 2004- 2006

Development of a tool for modelling water supply systems using geographic information systems and genetic algorithms. 2003-2006

Development of a methodology for evaluating irrigation networks: application to the optimal design of networks and evaluation of the performance of existing irrigation networks 2000-2003

Integrated Urban Water Management. 2002-2003

Expert system, based on management indicators, for more efficient water use. 1999-2001

EURO WATER (EURO AGUA: Efficient use of water. 1998-1999

ETNET-AGUA European Thematic Network for Education and Training on. 1996-1997

RELEVANT CONSULTANCY
PROJECTS AT
UNIVERSITAT
POLITÈCNICA DE
VALÈNCIA
PARTICIPATION

Advice for the Realization of the Optimized Design of the Hydraulic Infrastructures Integrated in the Drive Systems, Pumping Stations, As well as the Classification and Hydraulic Calculations of Rafts. (03/27/23 - 12/31/24). Consultancy, technical studies and advice. TECHNOLOGIES AND AGRARIOUS SERVICES, S.A. S.M.E. M.P.

New agitation system for the vinification of red grapes. Fluid Mechanics Modelling. *Metal-Mechanics Institute*. 2017

E3 Project: Eco Efficient Building. *Becsa and consortium*. 2014

Improvement of membrane bioreactor systems (MBR) for the reuse of wastewater. *Iva-Leying*. 2011

Analysis using a computational model (CFD) of flows inside an anaerobic digester with the presence of biogas. *Valencian Water Company*. 2011

Study of the Impacts due to bad smells Coming from livestock in the Valencian Community. *Local Administration*. 2010

Guide for the energetic renovation of open urban spaces of public use. European project REPUBLICMED. *Valencia Building Institute*. 2010

Development of a computational model with CFD techniques to estimate the wind field around a singular structure. *Resenergie*. 2009

Advice for the design of a pumping in the cooling system of the tower of the company Galmed. *Thyssenkrupp Galmed* 2008

Study of alternatives focused on reaching the new pressure requirements in the machining operations of the block line. *Ford Spain*. 2006

Diagnostic study of the facilities involved in the supply of drinking water to the city of Valencia. *Valencian Administration*. 2001

PROFESSIONAL AND
SCIENTIFIC ASSOCIATIONS

Member of IAHR . Vice President since 2021

Member of International Environmental Modelling and Software Society