

Curriculum Vitae

Name	V. Martínez Alvarez
First Name	Victoriano
Date of Birth	18 July 1971
Nationality	Spanish
Main Disciplines	Agricultural engineering, Applied hydrology, Remote sensing and GIS, Water resources planning and management.
Address	Universidad Politécnica de Cartagena Paseo Alfonso XIII, 48 30203, Cartagena Spain Tel: +34 968 325473 Email: victoriano.martinez@upct.es

Key Qualifications

Dr. Victoriano Martínez Alvarez is an agricultural engineer with more than 15 years of research experience in agricultural water management related subjects. He obtained his PhD in 1999 on the Universidad Politécnica de Madrid, in the subject of hydrology of rural watersheds. His field of expertise covers various topics including hydrological flood forecasting, small reservoirs, evaporation from water bodies, technologies for evaporation mitigation in water bodies, irrigation water quality or economic assessments. He is especially interested in the impact of conveyance, storage and distribution efficiency of irrigation networks on the performance and productivity of irrigation districts. He leads a team of researchers assessing a wide range of irrigation and water scarcity benchmarking indicators for various irrigation districts in Spain. He supervised several PhD thesis related with t agricultural water management. He also had several research stays in foreigner research centers of Australia, USA and Canada. Victoriano is currently Associate Professor on the Universidad Politécnica de Cartagena and since March 2012 connected to FutureWater.

Educational background

2004-2005	Specialist in Remote Sensing and GIS, Universidad de Castilla-La Mancha, Spain
1997-1999	PhD & Doctorate degrees in Agricultural Engineering, Universidad Politécnica de Madrid.
1997-1999	Master in Applied Hydrology, Centro de Estudios y Experimentación de Obras Públicas (CEDEX), Spain.
1996-1997	Specialist in Photointerpretation of Geomorphology and Environmental Changes, Universidad Politécnica de Madrid.
1990-1996	Diploma of Agricultural Engineer, specialization in Rural Engineering, Universidad Politécnica de Madrid.

Professional Experience

1999- present	Staff teacher and researcher in the Universidad Politécnica de Cartagena, Spain.
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Selection of Assignments and Projects

2011-2013	Experimental assessment of monolayer effects on water storages evaporation and energy balance. Murcia Region Government.
2011-2012	Shade-covers on water reservoirs for irrigation: characterisation and modelling of evaporation process and effects on water quality. Spanish Government.
2011-2013	REDSIM (www.redsim.net). Remote-sensing based DSS for sustainable drought-adapted irrigation management. European Union.
2010–2013	Information system based on GIS, crop models and remote sensing for district irrigation management. Spanish Government.
2009-2010	SIRRIMED (www.sirrimed.org). Sustainable Use of Irrigation Water in the Mediterranean Region. European Union.
2008-2009	Modelling evaporation in agricultural water reservoirs by physically-based evaporation models. Murcia Region Government.
2006-2008	Assessment on the efficiency of evaporation mitigation techniques. Modelling evaporation of shaded reservoirs. Spanish Government.
2006-2008	Analysis of long-term Class A pan evaporation series and climatic data in the Segura Basin. Modelling of Class A pan evaporation. Murcia Region Government.
2005-2009	Methodology for retrieving regional evapotranspiration in semiarid regions by remote sensing. Spanish Government.
2002-2005	Development and assessment of a spatial and temporal monitoring system for real evapotranspiration. Murcia Region Government.
2002-2003	AMMA (amma.mediasfrance.org). African Moonsoon Multidisciplinary Analysis. European Union.
2000-2001	Development of a water resources support tool in poorly gaged semi-arid basins: implications in operational management of floods. Spanish Government.
1996-1999	Modelling hydrological events in small ungaged agricultural watersheds. Spanish Government.

Language Skills

Spanish:	mother tongue
English:	fluent in writing and speech

Computer Skills

GIS/RS:	ArcGIS, gvSIG, ENVI.
Hydrologic simulation models:	SWAT, HEC-HMS, HEC-RAS.
Irrigation and agricultural water management models:	Ks, GESTAR, EPANET

Miscellaneous

Associate editor

- Spanish Journal of Agricultural Research

Reviewer for the following Journals:

- Journal of Hydrology
- Hydrological Processes
- Agricultural Water Management
- Journal of Irrigation and Drainage Engineering
- Computers and Electronics in Agriculture
- Australian Journal of Multi-disciplinary Engineering
- Spanish Journal of Agricultural Research
- Water Management (ICE)
- Irrigation Science
- Water Resources Research

PhD Student supervision

- 2004: PhD José Miguel Molina Martínez: .Caracterización y modelización de la evaporación en tanques evaporímetros. Evaluación de los efectos de mallas de sombreado.
- 2011: PhD Belén Gallego Elvira: Análisis de la evaporación en embalses de riego y de su reducción con coberturas de sombreado.
- 2012: PhD Jose Francisco Maestre Valero: Efectos de la aplicación de coberturas de sombreado suspendidas sobre balsas de riego.
- 2012: PhD Maliko Tangui: Operational tools and applications of EO satellite data to retrieve surface fluxes in semi arid countries.

Awards

Universidad Politécnica de Madrid PhD Award.

Lecturing

- Universidad Politécnica de Cartagena, Spain.
- Universidad Politécnica de Madrid, Spain.
- Universidad de Zaragoza, Spain.
- Universidad de León, Spain.
- Universidad de Extremadura, Spain.
- Universidad Miguel Hernández, Spain.

Scientific publications

- Maestre-Valero J.F., Martínez-Granados D., **Martínez-Alvarez, V.**, Calatrava, J. 2012. *Impact of evaporation losses from reservoirs under past, current and future water availability scenarios in SE Spain*. Water Resources Management. In press.
- Gallego-Elvira, B., Baille, A., Martín-Górriz, B., Maestre-Valero, J.F., **Martínez Álvarez V.** 2012. *Estimation of evaporation from covered water reservoirs by means of dimensionless mass transfer formulae*. Journal of Hydrology. In press.
- Maestre-Valero J.F., R. Ragab, **V. Martínez-Alvarez**, A. Baille. 2012. *Estimation of Dew Yield from Radiative Condensers by Means of an Energy Balance Model*. Journal of Hydrology. In press.
- Maestre-Valero, J.F., **Martínez-Alvarez, V.**, Baille, A., Martín-Górriz, B., Gallego-Elvira, B. 2011. *Comparative Analysis of Two Foil Materials for Dew Harvesting in a Semi-arid Climate*. Journal of Hydrology 410: 84-91.
- Maestre-Valero, J.F., **Martínez-Alvarez, V.**, Gallego-Elvira, B., Pittaway, P. 2011. *Effects of a Suspended Shade Cloth Cover on Water Quality of an Agricultural Reservoir for Irrigation*. Agricultural Water Management 100: 70-75.
- Martínez-Granados, D., Maestre-Valero J.F., Calatrava, J., **Martínez-Alvarez, V.** 2011. *The economic impact of water evaporation losses from water reservoirs in the Segura Basin, SE Spain*. Water Resources Management. Water Resources Management 25: 3153-3175.
- Martínez-Alvarez, V.**, Gallego-Elvira, B., Maestre-Valero, J.F., Tanguy, M. 2011. *Simultaneous solution for water, heat and salt balances in a Mediterranean coastal lagoon (Mar Menor, Spain)*. Estuarine, Coastal and Shelf Science 91: 250-261.
- Gallego Elvira, B., Baille A., Martín Górriz, B., Maestre Valero, J.F., **Martínez Álvarez V.** 2011. *Energy balance and evaporation loss of an irrigation reservoir equipped with a suspended cover in a semiarid climate (South-Eastern Spain)*. Hydrological Processes 25: 1694-1703.
- Maestre Valero, J.F., **Martínez Álvarez, V.** 2010. *Effects of drip irrigation systems on the recovery of dissolved oxygen*. Agricultural Water Management 97: 1806-1812.
- Martínez Alvarez, V.**, J.F. Maestre Valero, B. Martín Górriz, B. Gallego Elvira. 2010. *Experimental assessment of shade-cloth covers on agricultural reservoirs for irrigation in south-eastern Spain*. Spanish Journal of Agricultural Research 8(S2), S122-S133.
- Gallego Elvira, B., Baille A., Martín Górriz, B., **Martínez Álvarez V.** 2010. *Energy balance and evaporation loss of an agricultural reservoir in a semiarid climate*. Hydrological Processes 24: 758-766.
- Molina Martínez, J.M., Belén Gallego, E., **Martínez Álvarez, V.** 2009. *Efecto de la estratificación del agua en la estimación de la evaporación en embalses de riego*. Ingeniería del Agua 16 (2): 115-127.
- Martínez Alvarez, V.**, Maestre Valero, J.F., Belén Gallego, E. 2009. *Reducción de las pérdidas por evaporación en balsas de riego mediante coberturas de sombreo suspendidas*. Agrícola Vergel. Agrícola Vergel 330: 348 – 353.
- Martínez Alvarez, V.**, Calatrava Leyva, J., Maestre Valero, J.F., Martín Górriz, B. 2009. *Economic assessment of shade-cloth covers for agricultural irrigation reservoirs in a semi-arid climate*. Agricultural Water Management 96: 1351 -1359.
- Martínez Alvarez, V.**, González-Real, M.M., Baille, A., Maestre Valero, J.F., Gallego Elvira, B. 2008. *Regional Assessment of Evaporation from Agricultural Irrigation Reservoirs in a Semiarid Climate*. Agricultural Water Management 95: 1056-1066.
- García Girones, M., **Martínez Alvarez, V.** 2007. *Metodología para el análisis del retorno de la inversión en cubiertas fijas para sombreo de balsas de regadío. Aplicación a un caso práctico*. Ingeniería Civil 148: 161-167.

- Martínez Álvarez, V.**, González-Real, M.M., Baille, A., Molina Martínez J.M. 2007. *A novel approach for estimating the pan coefficient of irrigation water reservoirs: Application to South Eastern Spain*. Agricultural Water Management 92: 29-40.
- Martínez Álvarez, V.** 2006. *Determinación del tiempo de concentración con sistemas de información geográfica*. Ingeniería del Agua 13 (4): 303-311.
- Molina Martínez, J.M. **Martínez Álvarez, V.**, González-Real M.M., A. Baille, A. 2006. *Estimación de la evaporación en embalses de riego mediante un modelo de balance de energía*. Ingeniería del Agua 13 (3): 219-229.
- Martínez Álvarez V.**, A. Baille, J.M. Molina Martínez, M.M. González-Real. 2006. *Effects of black polyethylene shade covers on the evaporation rate of agricultural reservoirs*. Spanish Journal of Agricultural Research 4: 280-288.
- Martínez Álvarez, V.**, Baille, A., Molina Martínez J.M., González-Real, M.M. 2006. *Efficiency of Shading Materials in Reducing Evaporation from Free Water Surfaces*. Agricultural Water Management 84: 229-239
- Molina Martínez J.M., **Martínez Álvarez, V.**, González-Real, M.M., Baille, A. 2006. *A Simulation Model for Predicting Hourly Pan Evaporation from Meteorological Data*. Journal of Hydrology 318: 250-261.
- Martínez Álvarez, V.**, García García A.I., Ayuga Téllez, F. 2004. *Monitorización de dos cuencas hidrológicas en la comunidad de Madrid mediante el empleo de sensores doppler para el aforo de corrientes*. Ingeniería del Agua 11 (2): 201-210.
- Martínez Álvarez, V.**, García García A.I., Ayuga Téllez, F. 2002. *Application of Distributed Routing Techniques Developed on GIS to Generate Surface Runoff Hydrographs*. Transactions of ASAE 45 (6): 1825-1834.