

RESEARCH TEAM

Mercedes del Río Merino
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Jaime Santa Cruz Astorqui
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César Porras Amores
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Accepted Journals

G. García; M. González; F. Magdalena; M. del Río. "Advances in the use of metacaolin for improving portland cement mortars' properties" (Avances en el uso de metacaolin para la mejora de las propiedades de los morteros de cemento tipo portland). DYNA Journal.

PhD Disertation

Alicia de San Antonio González defended her PhD Thesis titled "Characterization of ecoefficient gypsum compounds lightened with extruded polystyrene waste" (Caracterización de compuestos ecoeficientes de yeso aligerado con residuo de poliestireno extruido) last 4th July. Supervisors: M. del Río Merino; C. Viñas



Upcoming Events



IV International Congress on Construction and Building Research (COINVEDI) to be held in Tenerife on December 2017. For more information please visit: <https://coinvedi2017.webs.ull.es/>

Welcome to the 7th issue of TEMA newsletter where you can find an update of all the research activities carried out during the last seven months. We hope you enjoy reading this Newsletter!!

Published Journals

Santa Cruz Astorqui, J; Porras-Amores, C. Ventilated façade with double chamber and flow control device. Energy and Buildings. Doi: <http://dx.doi.org/10.1016/j.enbuild.2017.04.063>


N. González, E. Martínez, M. del Río, O. Liébana. "Packaging waste reduction in construction sites: eco-redesign of cardboard boxes" Waste Recycling Research Journal. 2017; 1:6 Doi: 10.4081/wrr.2017.6

A. Pedrosa, M. Del Río. Comparative scanning electron microscopic study on degradation of plasticized polyvinyl chloride waterproofing membrane in different conditions. Materiales de Construcción Vol. 67, Issue 325, January–March 2017, e109 Doi: <http://dx.doi.org/10.3989/mc.2017.08915>

R, Talero, C Aramburo; M. Gonzalez, MI Sánchez de Rojas, A, Blazquez, M. Frias, C, Pedrajas. Sulfate Resistance in OPC and SRPC Containing Calcined Paper Sludge Waste: Ettringite or Thaumassite Formation. Journal of Materials in Civil Engineering. Vol. 29, Issue 2, February 2017 Doi: [10.1061/\(ASCE\)MT.1943-5533.0001714](http://dx.doi.org/10.1061/(ASCE)MT.1943-5533.0001714)

R. Felices, C. Viñas, J.C. Losada. "Simulation and monitoring campaign in a sunspace, analysis of its influence over the building thermal performance. A case study". DYNA, vol. 92, Issue 2, p.209-213. March 2017. Doi: <http://dx.doi.org/10.6036/8202>

Current Research Projects

 **2014-2017** "W2R: De residuos a recursos" Ministry of Economy and Competitiveness

2016-2017 "Dictamen pericial de cuantificación de mano de obra en las obras de construcción" (Manpower quantification assessment in construction). Private funding

Patents

E. Medina Sánchez; J.M Medina Del Río; A. Rodríguez Sánchez; A. Tamayo Palacios P201431097 "Panel aislante para muros de cerramiento con cámara ventilada interior" (Insulating panel for enclosed walls with ventilated inner chamber). P201431097

J. Santa Cruz; C. Porras. Sistema de doble cámara con dispositivo de control de flujo para ventilación de fachadas. (Dual camera system with a flow control device for ventilated façades) Under evaluation

Final Degree & Master Projects

B.M. Martino. Università di Roma La Sapienza. Supervisors: C. Cecere, M. del Río, P. Villoria

D. Lepore. Università degli Studi di Napoli Federico II. "Caratterizzazione sperimentale delle prestazioni di malte alleggerite in un'ottica di sostenibilità" Supervisors: M. Nicoletta; P. Villoria; M. del Río

A. Tébar Carretero. "análisis de las propiedades de pinturas térmicas de uso en edificación". Director: M. González Cortina

J. Rodríguez Coronel "Análisis de las propiedades de morteros de albañilería fabricados con árido reciclado y partículas de EPS" Directores: A. Rodríguez Sánchez y M. González Cortina

N. García Horcajo "Modelo de análisis comparativo de costes ambientales, económicos y energéticos de una fachada, basado en el enfoque del ciclo de vida". Director: M. González Cortina

W2R Waste to Resources

W2R PROJECT

W2R project funded by the Spanish government will finish in October 2017.

More than 20 participants from four different Spanish Universities developed the project, aiming to identify and characterize several building construction compounds containing construction and demolition waste (CDW) from building rehabilitation works to improve their energy efficiency as well as to determine best practices for CDW source separation and minimization. The development and conclusions reached within the project have been a great success, published in a wide range of articles and conferences.

WANT TO LEARN MORE ABOUT W2R PROJECT?

Please continue reading at: http://www.edificacion.upm.es/tema/W2R_presenta.html

Conferences

M. del Río , P. Villoria Sáez; J. Santa Cruz Astorqui; A. Rodríguez Sánchez; C. Porrás Amores. Lightweight gypsum mortar with construction waste to be used as coatings with improved superficial hardness. HISER International Conference 21- 23 June 2017, Delft.

M. González Cortina, P. Saiz Martínez, F. Fdez. Martínez, C. Viñas Arrebola. Use of concrete recycled aggregates as a raw material in lightweight mortar fabrication. HISER International Conference 21- 23 June 2017, Delft.

C. Piña Ramirez; C. Viñas Arrebola; M. del Río Merino "Análisis de los niveles de confort a través del estudio de un pavimento cerámico en un sistema de calefacción solar pasiva". III Congreso Internacional de Construcción Sostenible y Soluciones Eco-Eficientes 27-29 Mar 2017, Sevilla.

M. del Río Merino; P. Villoria Sáez; J. Santa Cruz Astorqui; "From construction and demolition waste to resources for building construction". III Congreso Internacional de Construcción Sostenible y Soluciones Eco-Eficientes 27-29 Mar 2017, Sevilla.



OUTGOING & INCOMING VISITING students

We want to thank all our international students for all their work and good times we had together: **Benedetta Martino** from Università di Roma La Sapienza who joined TEMA last September, **Dario Lepore** and **Maria Infante** from the University of Naples and **Antonio Marota** from the University of Milan who joined us during the last months. **It was a pleasure having you here with us!!!!**

We will also want to welcome **Marica Sorrentino** from the University of Bari, who will join TEMA next September.



INTERNATIONAL VISITS

During the last months TEMA visited different Universities worldwide, meeting relevant academic staff and students.

Mariano González was invited to give several presentations at the University of Costa Rica in the Master Programme of building construction and materials: sustainability, thermal and acoustic insulation. Thank you to **Prof. Rudy Ventura Piedra** for his invitation and assistance during the stay.

TEMA visited the University of La Habana and participated in the XV congress on Management of Historical Centers which gave us the chance to meet **Prof Eusebio Leal**.

We also had the chance to attend Benedetta's thesis and meet her supervisor, Prof. Carlo Cecere, from the University of La Sapienza in Rome. We had the chance to talk and discuss further collaboration between both research groups. Thank you **Prof. Carlo Cecere and Benedetta**, we had a lovely stay in Rome! And thank you **Dario** for joining us during our visit!

TEMA met the Façade Research Group at Delft University last June. We had the chance to know the University and the activities developed by the group. It was a pleasure meeting **Prof. Ulrich Knaack** and his team. We are looking forward to our next meeting!

TEMA had the chance to meet **Prof. C.S. Poon** from the Hong Kong Polytechnic University. It was a pleasure meeting you and discuss future research works.

TEMA received several professors from the University of Naples. **Prof. Marina Fumo, Prof. Roberto Castelluccio and Verónica Vitiello** we hope you enjoyed your stay in Madrid!

Finally, Antonio Rodriguez was invited to give several presentations at the University of Los Andes in Cartagena (Colombia). Many thanks to **Prof. Juan Manuel Medina** for his kind invitation and assistance during the visit.



News

Mercedes del Río has been chosen to participate as a member of the Management Committee of the COST Action RESTORE "REthinking Sustainability TOWards a Regenerative Economy" (CA16114). Jan 2017

TEMA visited the construction site of the Clinic of Navarra in Madrid built by ARPADA. Jan 2017

TEMA joined the BETTER BUILDING CLUSTER Feb 2017.

TEMA visited the Institute of Cultural Heritage of Spain. Feb 2017

Mercedes del Río was invited as Keynote Speaker at the III International Congress on Sustainable Building and Eco-Efficient Solutions (CICSE) held in Seville, Mar 2017

Antonio Rodríguez, Mariano González, Mercedes del Río, César Porrás and Paola Villoria were invited as Evaluation committee members of several PhD thesis at different Universities, such as: Universidad de Valencia, Universidad de Extremadura, University of Sevilla, UPM, etc. Jan-Jul 2017.

Mercedes participated as a member of the evaluation committee at the Serra-Hunter Programme.

Mercedes del Río participated as a member of the Scientific Committee at the 5th International Conference on Higher Education Teaching (CINDU 2017) held in Vigo, Jun 2017.



MORE INFORMATION

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