



# Curriculum Vitae

João Paulo de Castro-Gomes

*Full Professor*

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## i. AFILIATION AND SUMMARY

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Sites	
R&D Unit:	<a href="https://cmadeubi.wordpress.com">https://cmadeubi.wordpress.com</a>
Research projects:	<a href="https://reminemscas.wordpress.com">https://reminemscas.wordpress.com</a> <a href="https://geogreenmade.wordpress.com">https://geogreenmade.wordpress.com</a> <a href="https://efatrasubi.wordpress.com">https://efatrasubi.wordpress.com</a>
UBI:	<a href="https://www.ubi.pt/Pessoa/jpcg">https://www.ubi.pt/Pessoa/jpcg</a>

João Castro Gomes is currently Full Professor at the Faculty of Engineering, University of Beira Interior. He is a member of the Department of Civil Engineering and Architecture and a member of the Research Unit “C-MADE - Centre of Materials, Environment and Building Technologies” funded by FCT (Portuguese national foundation for science and technology), Since 2007.

He concluded his Doctor of Philosophy Degree (PhD) in Mathematical models for assessing cement hydration and microstructure of cement pastes, in 1997 at University of Leeds (UK) and joined afterwards the Department of Civil Engineering at University of Beira Interior (UBI). Since then he was particularly involved in the installation of different research laboratories for materials and construction technology at UBI, namely the laboratory of durability of materials. He was also responsible for the implementation of the first Master Course (<http://www.mreamb.ubi.pt/planoestudos.htm>) and for running the first Erasmus program and the establishment of first Doctoral Program of studies in Civil Engineering at UBI.

During his scientific activity has been involved and coordinated several research projects granted by highly competitive National and European Research Calls, some of them involving SMEs and industry (e.g. eCO2CRETE: Environment-friendly concrete for the capture of CO<sub>2</sub> in the built environment, granted by the Qatar National Research Fund, with project NPRP13S-0123-200158, Period 2021-2024, project value US\$700.000,00, and UBI funding

US\$194.000,00; REMINE- Reuse of Mining Waste into Innovative Geopolymeric-based Structural Panels, Precast, Ready Mixes and Insitu Applications, granted by the European Commission under Horizon 2020 MARIE Skłodowska-CURIE Actions, Research and Innovation Staff Exchange (RISE), with project N. 645696, period 2015-2018, project value of EUR 567.000,00 and UBI funding EUR 108.000,00; GEOGREEN - Waste geopolymeric binder-based natural vegetated panels for energy-efficient building green roofs and facades. Period: 2011-2013. FCT grant. UBI funding: EUR 152.832,00; SELICON - Service life design: modelling the durability performance of Concrete. Period: 2008-2011. FCT grant. UBI funding: EUR 31.900,00; VALREMIN - Valorization of mining wastes. Period 2006-2008. ADI grant. UBI funding: 49.300,00; REEQ - FCT scientific re-equipment: Study of new construction systems, concrete composition and bituminous mixes, with incorporating materials, for better performance and durability on climates with high thermal amplitudes. Period: 2006. FCT grant. UBI funding: EUR 375.000,00; AGREDUR - Influence of physical properties and morphological parameters of granite and calcareous aggregates on the durability of concrete. Period 2000-2004. FCT grant. UBI funding: EUR 25.000,00).

As a result of his scientific activity, his research work has been recognized and awarded several prizes related to carbon capture and utilization in the construction industry (1st Prize Climatelaunchpad Global competition 2018 - EIT Climate KIC, 1st prize Manuel António da Mota Foundation 2018, worth of €50,000.00 with the idea for development of pilot production of building blocks obtained with waste and carbon dioxide, Winner idea within “Promove Regiões Fronteiriças/Promoting Border Regions” 2019 edition supported by the La Caixa Foundation/BPI and 1st Prize awarded by TAKE-OFF Project - Building Global Technology Entrepreneurs for Advanced Materials 2020 given to DARKCO2 business idea).

Currently (2018-) João Castro Gomes is scientific coordinator of C-MADE Centre of Materials and Building Technologies R&D unit. He was also C-MADE coordinator between 2008 and 2014, having been responsible for its foundation in 2007. Regarding doctorate studies supervision, he is currently supervising 7 students for obtaining the doctorate degree award. Previously, he has successfully supervised 4 students and co-supervised other 5 students. His research interests are on the development of multifunctional and sustainable cementitious materials. Castro-Gomes is currently conducting research activities in the following areas: Up-Cycling Wastes into Smart Cementitious Materials; Storage of CO<sub>2</sub> and Methane in Concrete Materials; Durability Testing Methods of Cementitious Materials and Effect of Climate Change on Critical Infrastructure.

## 1. EDUCATION

- Habilitation Title in Civil Engineering with the Summary Lesson: *Desafios da construção sustentável no domínio dos materiais de construção* (Challenges of sustainable construction in the field of construction materials), University of Beira Interior, (PT), 2009.
- Doctor of Philosophy in Civil Engineering (PhD), Mathematical models for assessing hydration and microstructure of cement pastes, University of Leeds, (UK), 1997.
- First Degree in Civil Engineering (5 years Course), Department of Civil Engineering, University of Minho, (PT), July 1991.

## 2. ACADEMIC/RESEARCH CAREER

- Full Professor, University of Beira Interior (PT), since March 2011.
- Associated Professor, University of Beira Interior (PT), since August 2004 to March 2011.
- Assistant Professor, University of Beira Interior (PT), since January 1998 to August 2004.

### 3. ACADEMIC POSITIONS/ASSIGNMENTS

- Full professor in Civil Engineering, University of Beira Interior, (PT), since 2011.
- Head of Laboratory of Durability of Building Materials, University of Beira Interior, (PT), since 2005.
- Scientific coordinator of C-MADE Centre of Materials and Building Technologies R&D unit at UBI, since 2018 and between 2008 and 2014 (<https://cmadeubi.wordpress.com>).

### 4. RESEARCH

#### 4.1. Scientific, cultural or technological production

##### 4.1.1. Patents

- Castro-Gomes, J., & Humbert, P. (2019). Process for obtaining CaO-MgO binders and construction products with reuse of subproducts and/or residues and absorption of carbon dioxide. Portugal. Patent PT 110895 (A) 2020-03-02.
- Castro-Gomes, J., & Manso, M. (2017). Sistema de peças modulares para execução de superfícies ajardinadas com capacidade de melhorar termicamente a envolvente edificada/System of modular parts for the execution of vegetated surfaces capable of thermally improving the building envelop. Portugal. Patent PT 109260 (A) 2017-09-28
- Castro-Gomes, J., Kheradmand, M., Azenha, M., Silva, P. D., de Aguiar, J. L. B., & Zoorob, S. E. (2016). Agregados leves impregnados por imersão com materiais de mudança de fase e selagem superficial por molhagem com revestimentos à prova de água/Assessing the feasibility of impregnating phase change materials in lightweight aggregate for development of thermal energy storage systems. Portugal. Patent 108276 (A) 2016-09-12.
- Manso, M., Castro-Gomes, J., Virtudes, A., Albuquerque, A., & Lanzinha, J. C. (2013). Conjunto acoplável de peças modulares para execução de superfícies ajardinadas/System of modular parts for the execution of vegetated surfaces on the building envelop. Portugal. Patent PT106022 (A) 2013-07-03.

##### 4.1.2. Scientific books

- Szymon Dawczynski, S., Górski, M., Lemczak, B., Knoppik-Wróbel, A., Kryzon, R., Kubica, J., Szojda, L., Agneloni, C., Agneloni, E., Casadei, P., Bartosik, T., Koperski, K., Castro-Gomes, J., Lopez, C. and Salvado, R., HANDBOOK - Fibrous Composite Materials in Strengthening of Structures. Editors: Editors: Marcin Górski, Rafał Krzywón, João P. Castro-Gomes, January 2016.
- Castro-Gomes, J., Manso, M., Virtudes, A., Carlos, J.S., Delgado, F., Nina, G., Oliveira, L., Gorski, M., Marchcz, M., Santiago, M. and Silva, P., Modular Systems: Green Roofs and Walls, Serviços Gráficos da Universidade da Beira Interior, Covilhã, 2014, ISBN: 978-989-654-158-3.
- Szymon Dawczynski, S., Gorski, M., Knoppik-Wrobel, A., Kryzon, R., Szojda, L., Agneloni, C., Agneloni, E., Casadei, P., Bartosik, T., Koperski, K., Castro-Gomes, j., and Salvado, R., Strengthening of structures with use of fibrous materials, Silesian University of Technology, Editors: Marcin Górski, Rafał Krzywón, João P. Castro-Gomes, January 2014.
- R. Peralbo Cano, J.A. Durán Suarez, A. Sorroche Cruz, J.P. Castro Gomes, C. Bellido Márquez y A.M. Pereira da Silva, “Mortero y Hormigón: Tecnología y Aplicaciones Artísticas”, Edited by Universidade de Granada (Espanha) and Co- Edited by C-MADE (Centre of Materials and Building Technologies), Universidade da Beira Interior (Portugal), 2010, ISBN: 978-84-338-5152-9.

#### 4.1.3. Chapters in scientific books

- Górski, M., Krzywón, R., & Castro-Gomes, J. (2016). Rules for FRP strengthening shaping. In Handbook - Fibrous composite materials in strengthening of structures (pp. 122-135). Universidade da Beira Interior, C-MADE (Centre of Materials and Building Technologies).
- Gorski, M., Krzywón, R., & Castro-Gomes, J. (2016). FRP Composites. In Handbook - Fibrous composite materials in strengthening of structures (pp. 40-49). Universidade da Beira Interior, C-MADE (Centre of Materials and Building Technologies).
- Górski, M., Krzywón, R., & Castro-Gomes, J. (2016). Introduction. In Handbook - Fibrous composite materials in strengthening of structures (pp. 1-7). Universidade da Beira Interior, C-MADE (Centre of Materials and Building Technologies).
- Carlos, J. S., Corvacho, H., Silva, P. D., and Castro-Gomes, J. P. (2011). The contribution of a double ventilated window to the energy efficiency of a building. In M. J. Acosta (Ed.), *Advances in Energy Research*, Volume 7 (pp. 273-306). Nova Science Publishers, Inc., New York. ISBN 978-1-61122-956-1.
- Torgal, F.P., Castro-Gomes, J. and Jalali, S. (2009). Chapter 18 - Utilization of mining wastes to produce geopolymer binders, in *Geopolymers: Structure, processing, properties and applications*, Edited by Jonh Provis & J. Van Deventer, Woodhead Publishing, 2009, ISBN 978-1-84569-449-4.

#### 4.1.4. Publications in indexed research journals

*(Since 2011)*

- Benhamouda, A., Castro-Gomes, J. and Pereira-de-Oliveira, L. (2021). Rheology, Mechanical Properties and Porosity of Ternary Alkali-Activated Binders Based on Mining Mud Waste with Waste Glass and Metakaolin', *CivilEng*, 2(1), pp. 236-253. doi: 10.3390/civileng2010013.
- Malheiro, R., Camões, A., Meira, G., Amorim, M.T., Castro-Gomes, J. (2020). Interaction of carbonation and chloride ions ingress in concrete, *RILEM Technical Letters*, 5. doi: 10.21809/rilemtechlett.2020.126.
- Sedira, N. and Castro-Gomes, J. (2020). Alkali-Activated Binders Based on Tungsten Mining Waste and Electric-Arc-Furnace Slag: Compressive Strength and Microstructure Properties. *CivilEng*, 1(2), pp. 154-180. doi: <https://doi.org/10.3390/civileng1020010>.
- Narimane, Z. Hamma, Z., Castro-Gomes, J.P., Boudjema, B., Aissa, T., and Amin, B.M. (2020). Evolution of durability and mechanical properties of ordinary Portland cement concretes in sulphates attack, *Engineering Review*, 40(3), pp. 32-41. doi: 10.30765/er.40.3.04.
- Sedira, N. and Castro-Gomes, J. (2020). Effect of activators on hybrid alkaline binder based on tungsten mining waste and ground granulated blast furnace slag, *Construction and Building Materials*. Elsevier Ltd, 232, p. 117176. doi: 10.1016/j.conbuildmat.2019.117176.
- Beghoura, I., & Castro-Gomes, J. (2019). Design of alkali-activated aluminium powder foamed materials for precursors with different particle sizes. *Construction and Building Materials*, 224, 682-690. <https://doi.org/10.1016/J.CONBUILDMAT.2019.07.018>.
- Humbert, P. S., Castro-Gomes, J. P., & Savastano, H. (2019). Clinker-free CO<sub>2</sub> cured steel slag based binder: Optimal conditions and potential applications. *Construction and Building Materials*, 210, 413-421. <https://doi.org/10.1016/j.conbuildmat.2019.03.169>.
- Kastiukas, G., Zhou, X., Wan, K. T., & Castro Gomes, J. (2019). Lightweight Alkali-Activated Material from Mining and Glass Waste by Chemical and Physical Foaming. *Journal of Materials in Civil Engineering*, 31(3), 04018397.

- Humbert, P. S., & Castro-Gomes, J. (2019). CO<sub>2</sub> activated steel slag-based materials: A review. *Journal of Cleaner Production*, 208, 448-457.
- Sedira, N., Castro-Gomes, J., & Magrinho, M. (2018). Red clay brick and tungsten mining waste-based alkali-activated binder: Microstructural and mechanical properties. *Construction and Building Materials*, 190, 1034-1048.
- Malheiro, R., Camões, A., Meira, G., Amorim, M. T., Castro-Gomes, J., & Ferreira, R. M. (2018). Behaviour of cementitious matrices subjected to the combined action of chloride ions and carbonation. *Matéria (Rio de Janeiro)*, 23(3).
- Guerzou, T., Mebrouki, A., & Castro-Gomes, J. (2018). Study of concretes properties based on pre-saturated recycled aggregates. *Journal of Materials and Engineering Structures*, 5, 279-288.
- Duan, Z., Zhang, L., Lin, Z., Fan, D., Saafi, M., Castro Gomes, J., & Yang, S. (2018). Experimental test and analytical modeling of mechanical properties of graphene-oxide cement composites. *Journal of Composite Materials*, 52(22), 3027-3037.
- Manso, M., Castro-Gomes, J., Paulo, B., Bentes, I., & Teixeira, C. A. (2018). Life cycle analysis of a new modular greening system. *Science of the Total Environment*, 627.
- Kheradmand, M., Azenha, M., Castro-Gomes, J. P., & De Aguiar, J. L. B. (2018). Energy benefits of cement-based plaster containing hybrid phase-change material. *Proceedings of Institution of Civil Engineers: Construction Materials*, 171(3).
- Kastiukas, G., Zhou, X., & Castro-Gomes, J. (2017). Preparation conditions for the synthesis of alkali-activated binders using tungsten mining waste. *Journal of Materials in Civil Engineering*, 29(10).
- Manso, M., Castro-Gomes, J. P., Marchacz, M., Górski, M., Dulak, L., & Zuchowski, R. (2017). Acoustic Evaluation of a New Modular System for Green Roofs and Green Walls. *Architecture, Civil Engineering, Environment*, 10(2), 99-108.
- Sedira, N., Castro-Gomes, J., Kastiukas, G., Zhou, X., & Vargas, A. (2017). A review on mineral waste for chemical-activated binders: Mineralogical and chemical characteristics. *Mining Science*, 24.
- Beghoura, I., Castro-Gomes, J., Ihsan, H., & Estrada, N. (2017). Feasibility of alkali-activated mining waste foamed materials incorporating expanded granulated cork. *Mining Science*, 24.
- Manso, M., & Castro-Gomes, J. P. (2016). Thermal analysis of a new modular system for green walls. *Journal of Building Engineering*, 7.
- Dinis-Almeida, M., Castro-Gomes, J., Sangiorgi, C., Zoorob, S. E., & Afonso, M. L. (2016). Performance of Warm Mix Recycled Asphalt containing up to 100% RAP. *Construction and Building Materials*, 112.
- Shafie-khah, M., Kheradmand, M., Javadi, S., Azenha, M., de Aguiar, J. L. B., Castro-Gomes, J., ... Catalão, J. P. S. (2016). Optimal behavior of responsive residential demand considering hybrid phase change materials. *Applied Energy*, 163.
- Kastiukas, G., Zhou, X., & Castro-Gomes, J. (2016). Development and optimisation of phase change material-impregnated lightweight aggregates for geopolymer composites made from aluminosilicate rich mud and milled glass powder. *Construction and Building Materials*, 110, 201-210.
- Afonso, M. L., Dinis-Almeida, M., Pereira-de-Oliveira, L. A., Castro-Gomes, J., & Zoorob, S. E. (2016). Development of a semi-flexible heavy duty pavement surfacing incorporating recycled and waste aggregates - Preliminary study. *Construction and Building Materials*, 102, 155-161.

- Kheradmand, M., Azenha, M., de Aguiar, J. L. B., & Castro-Gomes, J. (2016). Experimental and numerical studies of hybrid PCM embedded in plastering mortar for enhanced thermal behaviour of buildings. *Energy*, 94, 250-261.
- Shafie-khah, M., Kheradmand, M., Javadi, S., Azenha, M., Aguiar, J. L. B. De, & Castro-gomes, J. (2016). Optimal behavior of responsive residential demand considering hybrid phase change materials. *Applied Energy*, 163, 81-92.
- R. Krzywon, M. Gorski, S. Dawczynski, L. Szojda, J. Castro Gomes, R. Salvado, Self-Monitoring Strengthening System Based on Carbon Fiber Laminate, *J. Sensors*. 2016 (2016).
- R.M. Ferreira, J.P. Castro-Gomes, P. Costa, R. Malheiro, Effect of metakaolin on the chloride ingress properties of concrete, *KSCE J. Civ. Eng.* 20 (2016) 1375-1384.
- Kastiukas, G., Zhou, X., Castro-Gomes, J., Huang, S., & Saafi, M. (2015). Effects of lactic and citric acid on early-age engineering properties of Portland/calcium aluminate blended cements. *Construction and Building Materials*, 101, 389-395.
- Kheradmand, M., Castro-Gomes, J., Azenha, M., Silva, P. D., de Aguiar, J. L. B., & Zoorob, S. E. (2015). Assessing the feasibility of impregnating phase change materials in lightweight aggregate for development of thermal energy storage systems. *Construction and Building Materials*, 89, 48-59.
- Manso, M., & Castro-Gomes, J. (2015). Green wall systems: A review of their characteristics. *Renewable and Sustainable Energy Reviews*, 41, 863-871.
- Salvado, R., Lopes, C., Szojda, L., Araújo, P., Gorski, M., Velez, F. J., Castro-Gomes, J., Krzywon, R. (2015). Carbon fiber epoxy composites for both strengthening and health monitoring of structures. *Sensors (Basel, Switzerland)*, 15(5), 10753-70.
- Vargas, A.S., Dal Molin, D.C.C., Masuero, A.B., Vilela, A.C.F., Castro-Gomes, J., Gutierrez, R.M. (2014). Strength development of alkali- activated fly ash produced with combined NaOH and Ca(OH)<sub>2</sub> activators (2014). *Cement and Concrete Composites*, Volume 53, October 2014, Pages 341-349.
- Durán Suárez, J., Montoya Herrera, J., Silva, A., Peralbo Cano, R., & Castro-Gomes, J. (2014). Validación de nuevos materiales cerámicos a partir de rocas de desecho de minería. Propiedades mecánicas. *Boletín de la Sociedad Española de Cerámica y Vidrio*, 53(6): 279-288.
- Pereira-de-Oliveira, L.A., Nepomuceno, M.C.S., Castro-Gomes, J., Vila, M.F.C. (2014). Permeability properties of self-compacting concrete with coarse recycled aggregates, *Constr. Build. Mater.* 51. 113-120.
- Vargas, A.S., Gutierrez, R.M., Castro-Gomes, J. (2014). Study of Geopolymeric Binders of Fly Ash/Metakaolin Mixtures Cured at Room Temperature, *Key Engineering Materials* 600 (2014) 338-344.
- Barroca, N., Borges, L.M., Velez, F.J., Monteiro, F., Górski, Castro-Gomes, J.P. (2013). Wireless sensor networks for temperature and humidity monitoring within concrete structures. *Construction and Building Materials*, 40, 1156-1166.
- Pereira de Oliveira, L.A., Castro Gomes, J.P., Bernardo, L.F.A., Ramos, M.M.M. (2013). Evaluation of dry mortar ratio as mix design parameter for steel fibre reinforced self-compacting concrete. *Construction and Building Materials*, 40, 642-649.
- Pereira de Oliveira L.A., Castro Gomes J.P., Nepomuceno M.C.S. (2013). The influence of wastes materials on the rheology of rendering mortars. *Applied Rheology* 23 15505 - 1 -11.
- Pires, L., Silva, Pedro D., and Castro-Gomes, J.P. (2013). Experimental study of an innovative element for passive cooling of buildings, *Sustainable Energy Technologies and Assessments*, 4, pp. 29-35.



- Varela, B., Tavares, P.B., Teixeira-Pinto, A., Castro-Gomes, J. (2013). Chemical composition correction of aluminosilicate materials to enhance their conditions as precursors for alkaline activation. *Journal of Materials Science and Engineering with Advanced Technology*. Vol.7, 1.
- Dinis-Almeida, M.; Castro Gomes, J.P.; Antunes, M.L., Vieira, L. (2013). Mix design and performance of warm-mix recycled asphalt. *Proceedings of the ICE - Construction Materials*.
- Silva, I., Castro-Gomes, J., & Albuquerque, A. (2012). Mineral Waste Geopolymeric Artificial Aggregates (WGA) as Alternative Materials for Wastewater Treatment Processes - Study of Structural Stability and pH Variation in Water. *Journal of Materials in Civil Engineering*, 1(1), 369.
- Dinis-Almeida, M.; Castro Gomes, J.P.; Antunes, M.L. (2012). Mechanical Performance and Economic Evaluation of Warm Mix Recycling Asphalt. *Procedia - Social and Behavioral Sciences* 53, 286- 296.
- Silva, I., Castro-Gomes, J. P., & Albuquerque, A. (2012). Effect of immersion in water partially alkali-activated materials obtained of tungsten mine waste mud. *Construction and Building Materials*, 35, 117-124.
- Pereira-de-Oliveira, L. A., Castro-Gomes, J. P., & Nepomuceno, M. C. S. (2012). Effect of acrylic fibres geometry on physical, mechanical and durability properties of cement mortars. *Construction and Building Materials*, 27(1), 189-196.
- Pereira-de-oliveira, L. A., Castro-Gomes, J. P., & Santos, P. M. S. (2012). The potential pozzolanic activity of glass and red-clay ceramic waste as cement mortars components. *Construction and Building Materials*, 31, 197-203.
- Moradias, P. a., Silva, P. D., Castro-Gomes, J. P., Salazar, M. V., & Pires, L. (2012). Experimental study on hygrothermal behaviour of retrofit solutions applied to old building walls. *Construction and Building Materials*, 35, 864-873.
- Carlos, J. S., Corvacho, H., Silva, P. D., & Castro-Gomes, J. P. (2012). Heat recovery versus solar collection in a ventilated double window. *Applied Thermal Engineering*, 37, 258-266.
- Castro-Gomes, J. P., Silva, A. P., Cano, R. P., Durán Suarez, J., & Albuquerque, A. (2012). Potential for reuse of tungsten mining waste-rock in technical-artistic value added products. *Journal of Cleaner Production*, 25, 34-41.
- Dinis-Almeida, M., Castro-Gomes, J., & Antunes, M. D. L. (2012). Mix design considerations for warm mix recycled asphalt with bitumen emulsion. *Construction and Building Materials*, 28(1), 687-693.
- Zoorob, S. E., Castro-Gomes, J. P., & Oliveira, L. A. P. (2012). Assessing low shear viscosity as the new bitumen Softening Point test. *Construction and Building Materials*, 27(1), 357-367.
- Zoorob, S. E., Castro-Gomes, J. P., Pereira Oliveira, L. a., & O'Connell, J. (2012). Investigating the Multiple Stress Creep Recovery bitumen characterisation test. *Construction and Building Materials*, 30, 734-745.
- Oliveira, L.A.P. and Castro-Gomes, J.P. (2011). Physical and mechanical behaviour of recycled PET fibre reinforced mortar”, *Construction and Building Materials*, Vol. 25, Issue 4, pp. 1712-1717.
- Pires, L., Silva, Pedro D., and Castro-Gomes, J.P. (2011). Performance of textile and building materials for a particular evaporative cooling purpose”, *Experimental Thermal and Fluid Science*, vol. 35, pp. 670-67.

- Jorge S. Carlos, Helena Corvacho, Pedro D. Silva, J. P. Castro-Gomes (2011). Modelling and simulation of a ventilated double window, *Applied Thermal Engineering*, Vol. 31, pp. 93-102.
- Bezerra, U.T., Ferreira, R.M., Castro-Gomes, J.P. (2011). The effect of latex and chitosan biopolymer on concrete properties and performance”. *Key Engineering Materials*, Vol. 466, pp. 37-46.

#### 4.1.5. Publications in International conferences

*(Since 2011)*

- Sedira, N., Castro-Gomes, J., Low Liquid-To-Solid ratio of mining waste and slag binary alkali-activated material, *STARTCON19 International Doctorate Students Conference + Lab Workshop in Civil Engineering*, University of Beira Interior, Covilhã, 26 - 28 June 2019, Portugal.
- Soares, E., Castro Gomes, J., Early age compressive strength of waste-based-glass-powder magnesium silicate binders on initial carbonation curing, *STARTCON19 International Doctorate Students Conference + Lab Workshop in Civil Engineering*, University of Beira Interior, Covilhã, 26 - 28 June 2019, Portugal.
- Benhamouda, A., Castro-Gomes, J. and Oliveira, L., The effect of activator/precursor ratio on the rheological properties of alkali-activated mining waste mud paste, *STARTCON19 International Doctorate Students Conference + Lab Workshop in Civil Engineering*, University of Beira Interior, Covilhã, 26 - 28 June 2019, Portugal.
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- Vargas, A.S., Gutierrez, R. and Castro-Gomes, J.P., Study of the relationship of alkali-activated fly ashes/metakaolin based geopolymers curing at room temperature, 14th International conference on Non-conventional materials and technologies (NOCMAT), 24th-27th March. 2013. (ISI).
- Manso, M., Virtudes, A., and Castro-Gomes, J.P., Development of a modular system for vegetated surfaces in new buildings and retrofitting. Copenhagen, Dinamarca: World Green Roof Congress, 19-21 Setembro 2012.
- Dinis-Almeida, M.; Castro Gomes, J.P.; Antunes, M.L., 2012: Mechanical Performance and Economic Evaluation of Warm Mix Recycling Asphalt. Società Italiana Infrastrutture Viarie. 5th International Congress. Sustainability of Road Infrastructures. Rome, Italy. October 29-31. (ISI)
- Castro-Gomes, J.P., Wang, D., Pereira de Oliveira, L. and Ferreira, R.M., Study of Preconditioning procedures for absorption and permeability of concrete, in 12th International Conference on Durability of Building Materials and Components, Porto, Portugal, 12-15 April 2011.
- Castro-Gomes, J.P., A.M. Pereira da Silva, R. Peralbo Cano and J.A. Durán Suarez, Recycled Materials for Technical-Artistic Applications obtained with Tungsten Mine Coarse Wastes, in COST C25, International Conference on Sustainability of Constructions

- Towards a better built environment, University of Innsbruck, Austria, 3-5 February. 2011.
- Silva, I, Castro-Gomes, J.P. and Albuquerque, A., Properties of Geopolymeric Artificial Aggregates obtained from Tungsten Mine Waste Mud, for Wastewater Treatment Processes, in COST C25, International Conference on Sustainability of Constructions - Towards a better built environment, University of Innsbruck, Austria, 3-5 February. 2011.
- Silva I., Castro-Gomes J. and Albuquerque A., Analysis of the properties of waste-based geopolymeric binders after curing in water, in 1st International Conference on WASTES: Solutions, Treatments and Opportunities, Guimarães, Portugal, 12-14 Sept. 2011.
- Silva I., Castro-Gomes J. and Albuquerque A., Effect of acid conditions on the structural stability of mine waste mud-based geopolymeric artificial aggregates for wastewater treatment, in 4th International Congress on Energy and Environment Engineering and Management (4th CIEM), Mérida, Espanha, 25-27 May 2011.
- Dinis-Almeida, Marisa; Castro-Gomes, J.P.; Antunes, M.L.: Avaliação do Comportamento à Fadiga de Misturas Betuminosas Recicladadas Temperadas com Emulsão betuminosa, in ICEUBI2011 - International Conference on Engineering, University of Beira Interior, Covilhã, Portugal, Nov. 2011.

## 4.2. Coordination and participation on research projects

### 4.2.1. Coordination of research projects

- Unit I&D 4082, C-MADE, Centre of Materials and Building Technologies, UIDB/04082/2020 and UIDP/04082/2020. Period: 2020-2023. Total funding: EUR 298.680,00, UBI funding 249.576,00 (GOOD).
- European Commission Horizon 2020, MARIE Skłodowska-CURIE Actions, Research and Innovation Staff Exchange (RISE), project N. 645696, “REMINE- Reuse of Mining Waste into Innovative Geopolymeric-based Structural Panels, Precast, Ready Mixes and Insitu Applications”, project N. 645696, Project value EUR 567.000,00. UBI funding EUR 108.000,00 (2015-2018). (EXCELENT)
- Unit I&D 4082, C-MADE, Centre of Materials and Building Technologies, PEst-OE/ECI/UI4082. Period: 2014. UBI funding: EUR 13.804,00 (GOOD).
- Unit I&D 4082, C-MADE, Centre of Materials and Building Technologies, PEst-OE/ECI/UI4082. Period: 2011-2013. UBI funding: EUR 46.330,00 (GOOD).
- GEOGREEN - Waste geopolymeric binder-based natural vegetated panels for energy-efficient building green roofs and facades. Period: 2011-2013. UBI funding: EUR 152.832,00 (EXCELENT).
- SELICON - Service life design - modeling the durability performance of concrete - PTDC/ECM/69565/2006. Periodo: 2008-2011. UBI funding: EUR 31.900,00. (VERY GOOD)
- Unit I&D 4082, C-MADE, Centre of Materials and Building Technologies, PEst-OE/ECI/UI4082. Period: 2008-2010. UBI funding: EUR 38.500,00 (GOOD).

### 4.2.2. Participation on research projects

- eCO2CRETE: Environment-friendly concrete for the capture of CO<sub>2</sub> in the built environment, granted by the Qatar National Research Fund, with project NPRP13S-0123-200158, Period 2021-2024, project value US\$700.000,00, and UBI funding US\$194.000,00.
- ENMAT - E-mobility and sustainable materials and technologies. International Academic Partnership Programme announced by the National Agency for Academic Exchange (NAWA). Project period 1.12.2018 - 30.11.2020.
- EcoSET - Ecology, Science, Education and Technology. International Academic Partnership Programme announced by the National Agency for Academic Exchange (NAWA). Project period 1.10.2018 - 30.11.2021.

- INSYSM - Intelligent systems for structures strengthening and monitoring, project number 251373 (FP7-PEOPLE-2009-IAPP). Period: 2012-2014. Project value: EUR 383.644,00 (EXCELENT).
- EFATRAS - Environmental-friendly aeronautical transport systems integrated program. Period: 2013-2015. UBI Funding: EUR 201.187,00 (EXCELENT).

### 4.3. Awards and Recognitions

#### 4.3.1. International and national merit awards

- Winner idea within “Promove Regiões Fronteiriças/Promoting Border Regions” 2019 edition, supported by the La Caixa Foundation / BPI with the CO2LLECT project “selected idea”. The awarded idea aims to develop a project for the installation of CO2 collector filters directly in the chimneys of the industries (particularly, lime and biomass power plants) to collect carbon that can be reused to produce building materials, among other applications. The CO2LLECT project idea proposal was developed by Janine Ayoub and Mantas Sevelkovas, students of the Integrated Master in Architecture (University of Beira Interior), and co-developed by João Castro Gomes.
- 1st Prize awarded by TAKE-OFF Project - Building Global Technology Entrepreneurs for Advanced Materials given to DARKCO2 business idea developed by João Castro Gomes. DARKCO2” was chosen by the “HighTecMaterials Entrepreneurship Award, Pitch for Investors - International Financing Round”, which was attended by 17 entrepreneurs, responsible for presenting 10 business ideas. The project aims to implement an industrial unit for the design, development, and testing of solutions and prototypes of pre-industrial products (based on the reuse of industrial waste and by-products, which harden with the absorption of carbon dioxide).
- 1st Prize Award CEBT Ibérico at Universidade da Beira Interior (2018). Award given to GEOGREEN testbed project developed by João Castro Gomes and Maria Manso. CEBT Ibérico is supported by INESPO III (Innovation Network Spain-Portugal).
- 1st Prize Climatelaunchpad Global Grand Final and Sustainable Production Systems theme Award Climatelaunchpad (2018). Awards given to eCO2blocks idea (best green business idea out of 135), developed by João Castro Gomes and Pedro Humbert, for building a business with the production of masonry blocks with 100% industrial waste-based materials, carbon dioxide and non-potable water. ClimateLaunchpad is the world’s largest green business ideas competition, being part of part of the Entrepreneurship offerings of EIT Climate-KIC.
- 1st Prize Manuel António da Mota Foundation Award (2018). Awarded to UBI for eCO2blocks idea/project for developing a pilot production of building blocks obtained with industrial waste, without using potable water, which harden in 48 hours with high absorption of CO2 (carbon dioxide). Research to support eCO2blocks idea was developed at University of Beira Interior, by João Castro Gomes and Pedro Humbert. The 9<sup>th</sup> edition of the Manuel António da Mota Award aimed to distinguish the Institutions that contributed with their projects to the Sustainable Development Objectives (ODS).
- Top 10th best paper at the 4th international conference in Sustainable Construction Materials and Technologies, organized by University of Nevada- Las Vegas Coventry University (2016). Awarded to the paper entitled “Energy saving potential of cement-based mortar containing hybrid phase change materials applied in building envelopes” co-authored by M. Kheradmand, M. Azenha, J. Castro-Gomes, and J. Aguiar. The paper was judged by the SCMT4 awards committee to be an outstanding paper.
- 2nd best paper at the International Workshop on Environmental and Alternative Energy organized by NASA (2012). Awarded to Maria Manso and João Castro Gomes paper entitled “Modular system design for vegetated surfaces with alkaline activated materials”, output

of GEOGREEN Project - Waste geopolymeric binder-based natural vegetated panels for energy-efficient building, green roofs and facades. NASA Goddard Space Center. International Workshop on Environmental and Alternative Energy. December 4th to 7th in Maryland, USA.

#### **4.3.2. Editorial activities in research journals**

- Guest Editor of the Special Issue "Early Career Stars in Civil Engineering" of the open access CivilEng international journal (ISSN 2673-4109), ([https://www.mdpi.com/journal/civileng/special\\_issues/Civil\\_Eng](https://www.mdpi.com/journal/civileng/special_issues/Civil_Eng)).
- Guest Editor of the Special Issue "New Technologies for Investigatin Microstructure and Enhancing Performance of Cementitious Materials" of the open access Frontiers in Materials (ISSN 2296-8016), (<https://www.frontiersin.org/research-topics/14007/new-technologies-for-investigating-microstructures-and-enhancing-performance-of-cementitious-materia>).
- Editorial board member of Architecture, published by MDPI, since April 2021.
- Editorial board member of CiviEng, published by MDPI, since November 2019.
- Editorial board member of Minerals, published by MDPI, since April 2019.
- Editorial board member of Buildings, published by MDPI, since December 2018.
- Editorial board member of Portuguese national magazine "Engenharia Civil" of Universidade of Minho, since January of 2008.

#### **4.3.3. Invited peer reviewer on scientific international journals**

- Construction and Building Materials, published by Elsevier Science, Ltd.
- Cement & Concrete Composites, published by Elsevier Science, Ltd.
- Materials and Design, published by Elsevier Science, Ltd.
- Journal of Building Engineering, published by Elsevier Science, Ltd.
- European Journal of Environmental Civil Engineering, published by Elsevier Science, Ltd.
- International Journal of Architectural Heritage, published by Elsevier Science, Ltd.
- Journal of Civil Engineering and Management, published by Elsevier Science, Ltd.
- Habitat International, published by Elsevier Science, Ltd.
- International Journal of Pavement Research and Technology, published by Elsevier Science, Ltd.
- Composite Structures, published by Elsevier Science, Ltd.
- Engineering Science and Technology, an International Journal
- Materials, published by MDPI.
- Minerals, published by MDPI.
- Sustainability, published by MDPI.
- Construction Materials, published by MDPI.
- Recycling, published by MDPI.
- Applied sciences, published by MDPI.
- Mining Science, by Thomson Reuters Web of Science
- Architecture, Civil Engineering Environment, published by the Silesian University of Technology.
- Materials Research, Revista Ibero-Americana de Materiais, published by Associação Brasileira de Metalurgia e Materiais.
- Revista Matéria, published by Rede Latino-Americana de Materiais.
- Journals of Zhejiang University-Science - A (Applied Physics & Engineering), published by University of Zhajiang, China.

#### **4.3.4. Coordination and participation in scientific events program committees**

*(Since 2013)*

- RICON19 - International Conference, Brokerage Event and Lab Workshop, University of Beira Interior, 11 to 13 December 2019.
- STARTCON19 - International Doctorate Students Conference + Lab Workshop in Civil Engineering, 26 to 28 of June 2019.
- III Congresso Luso-Brasileiro de Materiais de Construção Sustentáveis, Coimbra, 14-16 February, Portugal, 2018. (Participation)
- International Conference on Engineering UBI 2017. Organizer: University of Beira Interior. 5-7 December 2017. (Participation)
- RICON17- REMINE International Conference. Valorization of Mining and Other Mineral Wastes into Construction Materials by Alkali-Activation. University of Beira Interior, October 25 - 27, Covilhã, Portugal, 2017. (Coordination)
- II Congresso Luso-Brasileiro de Materiais de Construção Sustentáveis, João Pessoa, 7-9 Novembro, Brazil, 2016. (Participation)
- Conference CONPAT 2015 (XIII Congresso Latino-Americano de Patologia da Construção, XV Congresso de Controlo de Qualidade na Construção e Construção 2015: Congresso Luso-Africano da Construção). Organizer: IST Instituto Superior Técnico. Lisboa. 8-10 September 2015. (Participation)
- International Conference on Engineering UBI 2015. Organizer: University of Beira Interior. 2-4 December 2015. (Participation)
- CLB-MCS 2014 - Congresso Luso-Brasileiro de Materiais de Construção Sustentáveis. Organizer: University of Minho. 5-7 March 2014. (Participation)
- Twin Covilhã International Conferences on Civil Engineering - TOWARD A BETTER ENVIRONMENT - (CE13) - and THE CONCRETE FUTURE (CF13) Covilhã, 26-29 May 2013. University of Beira Interior, University of Coimbra, CI-Premier Conference (Singapore). (Participation)

#### **4.3.5. Evaluation of scientific research proposals**

- Evaluator for Università Degli Studi di Padova - supporting Talnet in Research @ University of Padova - Stars Grants (2019).
- Evaluator on The Israel Science Foundation, on the Personal Research Grants (2020).
- Evaluator on Horizon 2020 EU Research and Innovation programme (2016-2017).
- Evaluator on R&D projects and technological development, engaging businesses and SCTN (National Science & Technology System). Portugal 2020. Portuguese Innovation Agency (2015-2019).
- Evaluator on Joint Luso-German and Luso-Spanish Research Actions. Council of Rectors of Portuguese Universities (CRUP). Civil Engineering Area. 2005.

## **5. TEACHING AND SUPERVISION**

### **5.1. Main teaching**

- Building materials I, Civil Engineering Master Course.
- Building materials II, Civil Engineering Master Course.
- Infrastructures and Sustainability, Civil Engineering Master Course.
- Workshop Interdisciplinar Laboratory, PhD course in Civil Engineering.
- Development of Civil Engineering materials, PhD course in Civil Engineering.
- Materials, Architecture Master course.

### **5.2. Supervision Doctoral students and participation on Doctoral research degrees exams**

#### **5.2.1. Supervision of Doctoral students**

(Ongoing)

- Supervisor of the doctoral thesis of Dina Pinto on “Vegetation-growth and water-pervious carbon-cured construction materials”, Department of Civil Engineering and Architecture, UBI, since September 2021.
- Supervisor of the doctoral thesis of Ana Abreu on “Use of biomass and sewage sludge towards the production of eco-construction materials”, Department of Civil Engineering and Architecture, UBI, since September 2021.
- Supervisor of the doctoral thesis of Luciana Sucupira on “Microstructure and thermal properties of cementitious materials with mining and metallic waste”, Department of Civil Engineering and Architecture, UBI, since September 2019.
- Supervisor of the doctoral thesis of Erick Grünhäuser Soares on “Development of waste-based magnesium cement for CO<sub>2</sub> capture and storage”, Department of Civil Engineering and Architecture, UBI, since September 2018.
- Supervisor of the doctoral thesis of Khalil El Azhar Beldjoudi on “ Application of alkali-activated materials for improvement of soil and paving infrastructure properties”, Department of Civil Engineering and Architecture, UBI, since September 2017.
- Supervisor of the doctoral thesis of Naim Sedira on “ Novel waste-based alkali-activated binders by combining mining and quarrying wastes with other mineral waste”, Department of Civil Engineering and Architecture, UBI, since February 2016.
- Supervisor of the doctoral thesis of Imed Beghoura on “Development of alkali-activated foamed materials combining both mining waste mud and expanded granulated cork”, Department of Civil Engineering and Architecture, UBI, since February 2016.
- Supervisor of the doctoral thesis of Abdelhakim Benhamouda on “Rheology and processing waste-based alkali-activated binders obtained by combining mineral and non-mineral waste”, Department of Civil Engineering and Architecture, UBI, since February 2016.

(Concluded)

- Supervisor of the doctoral thesis of Pedro Silva Humbert on “Synthesis and characterisation of CO<sub>2</sub> activated binders and concretes using industrial wastes and precast buildings applications”, Department of Civil Engineering and Architecture, UBI, January 2020.
- Co-supervisor of the doctoral thesis of Pedro Romano on “Desenvolvimento de uma metodologia de avaliação da durabilidade de estruturas de betão armado”, Department of Civil Engineering and Architecture, UBI, December 2019.
- Supervisor of the doctoral thesis of Maria Manso de Castro Morão on “Designing a system of modular pieces for green surfaces using alkali-activated materials”, Department of Civil Engineering and Architecture, UBI, January 2019.
- Co-supervisor of the doctoral thesis of Isabel Cristina Castanheira e Silva, on “Development of geopolymeric artificial aggregates from mine waste mud for wastewater treatment systems”, Department of Civil Engineering and Architecture, UBI, March 2013. Supervisor: Prof. António Albuquerque (DECA-University of Beira Interior).
- Co-supervisor of the doctoral thesis of Jorge Manuel da Silva Carlos on “Passive systems for ventilation of buildings with pre-heating air”, Department of Civil Engineering and Architecture, UBI, February 2010. Supervisor: Prof.a Helena Corvacho (FEUP - University of Porto).
- Supervisor of the doctoral thesis of Fernando Manuel Alves Silva Pacheco Torgal, titled “Development of Alkali-activated binders obtained from Panasqueira waste mining mud”, Department of Civil Engineering and Architecture, UBI, July 2007. Co-supervisor: Prof. Saïd Jalali (University of Minho).
- Co-supervisor of the PhD thesis of João Carlos Gonçalves Lanzinha, titled “Rehabilitation of Buildings: Methods for Diagnosis and Intervention”, Department of Civil Engineering



and Architecture, UBI, November 2006. Supervisor Prof. Vasco Freitas (FEUP - University of Porto).

- Co-supervisor of the PhD thesis of Luis Carlos Carvalho Pires, on "Experimental and Numerical Modelling of an Integrated Unit for Passive Cooling of Buildings", Department of Electromechanical Engineering, UBI, June 2011. Supervisor: Prof. Pedro Dinho Silva (DEM-University of Beira Interior).
- Supervisor of the doctoral thesis of Marisa Sofia Dinis de Almeida, on "Characterization and formulation of warm mix recycled asphalt in central", Department of Civil Engineering and Architecture, UBI, July 2011. Co-supervisor: Profa. Maria de Lurdes Antunes (LNEC).

### 5.2.2. External examiner of Master and Doctoral research degrees

- Daniel Ferreira Leal, "Durabilidade de betões produzidos com cimento reciclado", Department of Civil Engineering, Instituto Superior Técnico (IST), University of Lisbon, 2021. (Master)
- Miguel Caetano de Carvalho, "Caracterização de pastas produzidas com cimento reciclado sujeito a diferentes temperaturas de termoativação", Department of Civil Engineering, Instituto Superior Técnico (IST), University of Lisbon, 2020. (Master)
- Alexandre Jerónimo, "Uso de nanomateriais na prevenção de fungos em paredes e tetos", Department of Civil Engineering, University of Minho, Portugal, 2020. (Doctoral)
- Jenni Kiventerä, "Stabilization of Sulphidic mine tailings by different treatment methods" f Fibre and Particle Engineering Research Unit of the University of Oulu - Finland, 2019. (Doctoral)
- Rafael Andres Robayo Salazar, "Desarrollo y propiedades de un concreto sostenible basado en la activación alcalina de una puzolana natural volcánica". Escuela de Ingeniería de Materiales. Universidad del Valle. Cali, Colombia, 2019. (Doctoral)
- Ziaddin Zamanzadeh, "Cement based materials reinforced with recycled steel fibres: mechanical, durability and structural performance", Department of Civil Engineering University of Minho, Portugal, 2017. (Doctoral)
- Miguel Bravo, "Desempenho de betões produzidos com agregados reciclados obtidos a partir de RCD de centrais de reciclagem Portuguesas", Department of Civil Engineering Instituto superior Técnico, Portugal, 2016. (Doctoral)
- Samira Safari, "Early-Age Mechanical Properties and Electrical Resistivity of Geopolymer Composites. Department of Civil Engineering, School of Engineering and Design, Brunel University London (UK), 2016. (MPhil)
- Esmuell Esmaeeli, "Development of Hybrid Composite Plate (HCP) for Strengthening and Repair of RC Structures". Department of Civil Engineering, University of Minho (UM), 2015. (Doctoral)
- Kronrad Józef Krakowiak, "Assessment of the mechanical microstructure of masonry clay brick by nanoindentation". Department of Civil Engineering, University of Minho (UM), 2014. (Doctoral)
- Anísia Inês Lourenço, "Soluções construtivas de revestimento de paredes exteriores de tabique: comportamento térmico". School of Science and Technology. University of Trás-Os-Montes e Alto Douro (UTAD). Vila Real. 2014. (Master)
- José Alexandre Bogas, "Caracterização de betões estruturais com agregados leves de argila expandida", Department of Civil Engineering, Instituto Superior Técnico (IST), University of Lisbon, 2011. (Doctoral)
- María del Carmen Bellido, "Estudio Conservacional y Análisis Material de Obras de Arte Contemporáneo". Un Caso Experimental: Colección del Centro José Guerrero,

Departamento de Escultura, Universidade de Granada (UGR), Spain, 7th July 2010. (Doctoral)

- Cristina Moreno Pabón, “Diseño y Normalización de Patinas en la Caracterización y Procesos Técnicos”, Departamento de Escultura, Universidade de Granada (UGR), Spain, 26th September 2008. (Doctoral)

### **5.2.3. Independent Chair of external Doctoral research degrees**

- Jesús Montoya Herrera, “Validación de nuevos materiales cerámicos a partir de rocas desecho de minería. Propiedades mecânicas”, Departamento de Escultura, Universidade de Granada, Spain, 26th September 2008.

## **6. TRANSFER OF KNOWLEDGE AND TECHNOLOGY**

### **6.1. Valorisation and knowledge transfer**

#### **6.1.1. Patents transferred to the business sector**

- Castro-Gomes, J.P., Manso, M., Virtudes, A., Albuquerque, A., Lanzinha, J., Dinho, P., Delgado, F., Carlos, J. Conjunto acoplável de peças modulares para execução de superfícies ajardinadas. 2013 (PT N.106022).

#### **6.1.2. Participation in activities involving the business community**

- Project C-MADE/UBI Waste+CO2+MAT industrial prototypes. Mix design, insitu production and curing of first Slag waste + CO2 prototypes at PAVICER/BLOCOZEZERE industry (PT). Period December 2018. Slag supplied by HARSCO Metals Portugal.
- Project REMINE- Reuse of Mining Waste into Innovative Geopolymeric-based Structural Panels, Precast, Ready Mixes and Insitu Applications. Period 2015-2018. Involving SOFALCA Lda. (PT), ALSITEK Ltd (UK) and ALFRAN (SP).
- Project GEOGREEN - Waste geopolymeric binder-based natural vegetated panels for energy-efficient building green roofs and facades. Period: 2011-2013. Involving SOFALCA Lda. (PT).
- Study for the optimization of production process on GRANIPOLY industry. Funding of QREN. Anebeira. Period 2012. Lopes Garcia (PT).
- Project VALREMIN- Valorization of mining wastes. Period 2006-2008. Involving PATRIMART (PT).

### **6.2. Sentific and technological dissemination**

- STARTCON19 International Doctorate Students Conference + Lab Workshop in Civil Engineering, 26-28 of June 2019.
- RICON19 - REMINE International Conference + Brokerage Event + Lab Workshop on “Valotization of mining and other industrial wastes into construction materials by alkali-activation”, UBI, 11-13 of December 2019.
- RICON17 - REMINE International Conference + Brokerage Event + Lab Workshop on “Valotization of mining and other industrial wastes into construction materials by alkali-activation”, UBI, 25-27 of October 2017.
- Exposition on “Sustainable building materials and solutions”, Public Exhibition promoted by IteCons and CCCR Centro, at Alma Shopping - Coimbra, between 14-24 of February 2018.
- Exposition of prototypes under development by C-MADE/UBI researchers. Serra Shopping, Covilhã, between 12th to 19th of June 2016. C-MADE/UBI project prototype’s including the GEOGREEN modular system (also being further developed under REMINE project).
- REMINE- Opening International Seminar on ““Reuse of Mining Waste into Innovative Geopolymeric-based Structural Panels, Precast, Ready Mixes and Insitu Applications”, University of Granada, 28-29th May 2015.

- REMINE- Working Seminar. Department of Civil and Environmental Engineering, University of Strathclyde, Glasgow, Scotland, UK. 5-6th November 2015.
- Workshop on “*Betão, Qualidade, Sustentabilidade e Perspectivas Futuras*” (Concrete, Quality, sustainability and Future Prospects), UBI, APEB, Betão Liz S.A. University of Beira Interior, 23rd Abril 2013.
- Interdisciplinar Symposium on “*Compósitos poliméricos com resíduos de minas: Aplicações técnico-artísticas*”, Faculty of Engineering, UBI, 23rd November 2010.
- Exhibition no Shopping Centre “Serra Shopping” of Covilhã about research achievements carried on C- MADE, on “Valorization of waste”, one-week duration, June 2010.
- Special session ENG-07-4: “SESSÃO ESPECIAL: Reabilitação da Construção”, (Rehabilitation of construction) in ICEUBI 2007, 21-22nd November 2007.
- Internacional seminar on “Geopolímeros - Desenvolvimentos Recentes e Aplicações em Engenharia”, Organização UTAD and UBI, held on UTAD, 19-20 de January 2004.

### 6.3. Technical training courses

- RICON19 LAB WORKSHOP - Training Seminar and laboratory workshop on Accelerated Carbonation Technologies, C-MADE R&D Unit, University of Beira Interior, 11th December 2019 (Coordination).
- RICON17 LAB WORKSHOP - Training Seminar and laboratory workshop on the mix design alkali-activated materials using mining waste, C-MADE R&D Unit, University of Beira Interior, 25th October 2017. (Coordination)
- REMINE- Training seminar on Study of characterising the microstructure of materials by using Scanning Electron Microscopy (SEM) and Transmission Electron Microscopy (TEM), Optical Centre, University of Beira Interior, 8th June 2016. (Coordination)
- Summer course “Composite Materials - from basic to nano”, Electromechanical Department, University of Beira Interior, 12-16th September 2011. (Participation)

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