MINISTERIO DE CIENCIA E INNOVACIÓN

Cofinanciado por la Unión Europea

AGENCIA ESTATAL DE INVESTIGACIÓN

Part A. PERSONAL INFORMATION

CV date	

First name	Ernesto Mauricio		
Family name	González Rodríguez		
Gender (*)	Hombre		
Social Security, Passport, ID Numbe			
e-mail		URL Web	
Open Researcher and Contributor ID (ORCID) (*)			

(*) Mandatory

A.1. Current position

Position	Catedrático de Universidad (Associated Professor)		
Initial date	31/03/2022		
Institution	Universidad de Cantabria		
Department/Center	Instituto de Hidráulica Ambiental de la Universidad de Cantabria		
Country	Spain	Teleph. number	
Key words	Coastal Engineer, Coastal Morphodynamics, Coastal Modelling, Costal risks, tsunami expert		

A.2. Previous positions (research activity interuptions, art. 14.2.b))

Period	Position/Institution/Country/Interruption cause
18/03/2011 – 30/03/2022	*Profesor Titular de Universidad*
22/12/2005 – 17/03/2011	*Profesor Contratado Doctor I3*
01/01/2002 – 21/12/2005	*Investigador Ramón y Cajal*

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Civil Engineer	Universidad de Los Andes (Colombia)	1987
PhD in Civil Engineering	Universidad de Cantabria	1995

Part B. CV SUMMARY *(max. 5000 characters, including spaces)*

Mauricio González Msc and PhD in Civil Engineering (University of Cantabria, UC). He is associated Professor at the UC (2005-present) in the area of hydraulic Engineering and Head of Research Group on Coastal Engineering and Management (2011-present) at the Environmental Hydraulic Institute of UC (IHCantabria). Over 30 years of research has been mainly focused to different topics as beach morphodynamics, coastal numerical modeling, coastal processes and engineering, coastal risk assessment and management, climate change impacts on coastal areas, coastal flooding, integrated coastal zone management, numerical modeling of tsunamis and Tsunami risk assessment. He has published 1 book, 10 book chapters, more than 75 papers in scientific journals (SCI) and more than 180 international conference proceedings on these subjects (120 in indexed international conferences). He has participated in more than 50 research projects acting as Principal Investigator (PI) in more than 17 projects. 31 funded by the Spanish Research Agency, with 16 projects related with coastal morphodynamics and risks, and acting as PI in more than 9 projects. He has participated in 19 projects funded by the European Union program, with 8 projects related with coastal processes and acting as PI in 8 projects. In 2002, he obtained a Ramon y Cajal tenure track position at the UC followed by different academic positions. He has been Visiting Professor and researcher at the Cornell University (USA), University of Virginia (USA) and University of Kyoto (Japan). Besides his research, Prof. González has developed and extensive activity in collaboration with public administrations and private institutions and companies, having a great

impact on coastal engineering and management. He has been the coordinator or collaborated in more than 120 international consultancy and cooperation projects in the last 10 years, projects on technology transfer, leading the development of numerical tools, technical methods and databases for different national and international government administrations and institutions as the Inter-American Development Bank (IDB), the World Bank (WB), the International Spanish Cooperation Agency (AECID). He contributes to the development of numerical models, tools and methodologies regarding coastal hydro-morphodynamics and coastal risks, especially for Coastal Modeling System (SMC) and SMC-Brasil implemented in more than 60 countries with more than 1000 users. He is member of the Spanish National Committee to establish a Tsunami Warning System (TWS), tsunami scientific adviser for the European Commission DG-RTD and member of the ICG/NEAMTWS Steering Committee in the Intergovernmental Oceanographic Commission (IOC/UNESCO. Prof. González is an Associated Editor journal indexed (Q1): Natural Hazards and Earth System Sciences (NHESS), an open access and open discussion peer reviewed journal of the Natural Hazards division of the European Geosciences Union.
This researcher has 4 research periods (six-year terms) and 1 technology transfer period, being the last research period (2014-2019) on July 17, 2020. He has supervised 17 PhD thesis 2005-2020 (11 thesis in 2011-2021), currently 3 PhD thesis in development. Mauricio has supervised 67 Master's thesis (42 thesis 2011-2021). h-index: 25 (Scopus), Total Citations: 1805 (Scopus), Average citations year/last 5 years: 195.8. Total SCI publications in first quartile Q1: 51, Q2: 12, Q3: 8, Q4: 2, total articles in SCI: 75, Books: 1, Book Chapters: 10, Proceedings of international conferences Indexed in databases with quality index: 120 (35 as first author).

Part C. RELEVANT MERITS *(sorted by typology)*

C.1. Publications *(see instructions)*

1. Pellón, E., Aniel-Quiroga, I., **González, M**., Medina, R., Vidal, C. (2023). Working with nature to enhance beach accretion: laboratory experiments of beach ploughing, Coastal Engeneering 180 (2023) 104267 11/134-Q1

2. Jaramillo, C., Jara, M., **M. González**, Medina, R. (2020). A shoreline evolution model considering the temporal variability of the beach profile sediment volume (sediment gain / loss). Coastal Engineering, Elsevier Vol.156 (2020) 103612. IF: 4,119 (año 2019); 13/134-Q1

3. P. Gomes, R. Medina, **M. González**, R. Garnier (2019). Infragravity swash parameterization on beaches: The role of the profile shape and the morphodynamic beach state. Coastal Engineering, Elsevier. Vol. 136, p.p. 41-55. IF: 3,850 (año 2017); 12/132-Q1

4. J. Gainza, **M. González**, R. Medina (2018). A process based shape equation for a static equilibrium beach planform. Coastal Engineering, Elsevier. Vol. 136, p.p. 119-129. IF: 2,674 (año 2017); 21/128-Q1

5. I. Aniel-Quiroga, C. Vidal, C., J. Lara, **M. González**, A. Sainz (2018). Stability of rubble-mound breakwaters under tsunami first impact and overflow based on laboratory experiments. Coastal Engineering, Elsevier. Vol. 135, p.p. 39-54. IF: 2,674 (año 2017); 21/128-Q1

6. A. I. Elshinnawy, A. I., Medina, R., **González, M.** (2017). On the relation between the direction of the wave energy flux and the orientation of equilibrium beaches. Coastal Engineering, 127:20-36. IF: 2,674 (año 2017); 21/128-Q1

7. Álvarez, J.A., Méndez, F. J., Camus, P., **González, M**., Ruggiero, P., Barnard, P. and Vitousek, S. (2016). A Multi-scale Climate Emulator for Long-term Morphodynamics (MUSCLE-morpho). J. Geophys. Res. Oceans, 121. IF: 2,939 (año 2016); 11/63-Q1

8. Jara, M., **Gonzalez, M.**, Medina, R. (2015). Shoreline evolution model from a dynamic equilibrium beach profile. Coastal Engineering, 99:1-4. IF: 2,841 (año 2015); 7/126-Q1

9. Turki, I., Medina, R., Coco, G., **Gonzalez, M** (2013). An equilibrium model to predict shoreline rotation of pocket beaches. Marine Geology, 346:220-232. IF: 2,732 (año 2012); 38/172-Q1

10. Turki, I., Medina, R., **Gonzalez, M.,** Coco, G (2013). Natural variability of shoreline position: Observations at three pocket beaches. Marine Geology, 338:76-89. IF: 2,732 (año 2012); 38/172-Q1

C.2. Congress

1. Jaramillo, C., González, M., Medina, R 2022. Application of equilibrium-based shoreline evolution modeling to diverse coastal environments, 37th International Conference on Coastal Engineering 2022. World Scientific, ASCE, Sydney (Australia) 4th – 9th Dec. 2022. Oral presentation.

2. Jaramillo, C., Jara, M.S., González, M., Medina, R. A shoreline evolution model based on equilibrium formulations. Virtual International Conference on Coastal Engineering -vICCE2020 World Scientific, ASCE. 6-9 October 2020. Oral Presentation.

3. Gomes da Silva, P., Medina, R., González, M., Garnier, R. Field measurements and swash parametrization on beaches Proc. 36th International Conference on Coastal Engineering, 2018. World Scientific, ASCE, Baltimore (USA). 30 July – 3 Aug. 2018. Oral presentation.

4. A.I. Elshinnawy, R. Medina, M. González. Equilibrium Planform of Headland Bay Beaches: Effect of Directional Wave Climate.Proc. International Conference of Coastal Dynamics 2017. pp. 749-759. Helsingør (Denmark). 12-16 June 2017. Oral Presentation.

C.3. Research projects

European Projects:
1. Assessment, STrategy And Risk Reduction for Tsunamis in Europe (ASTARTE Project)
Reference: 603839
Sponsor: European Commission (EU)
Principal Investigator (PI): María A. Baptista (IPMA, Portugal), **Mauricio González** (PI, UC)
Duration: 12/2013 al 10/2016. Project Budget (UC): 316.338,00 euros
Participation: Researcher (WP leader)

2. Developing video-derived Coastal State Indicators in supporting of coastal zone management (COASTVIEW Project)
Reference: EVK3-CT-2001-0054
Sponsor: Unión Europea
Principal Investigator (PI): Raúl Medina (Universidad de Cantabria)
Duration: 2003-2005. Project Budget: 2 531 675 euros (total)
Participation: Researcher

Spanish Research Agency (Research Projects):
3. Beach profile dynamics and assisted recovery techniques: laboratory, numerical and field investigation (BeachART)
Reference: BIA2017-89491-R
Sponsor: Ministry of Science and Technology (Ministerio de Ciencia y Tecnología)
Principal Investigator (PI): **Mauricio González** (Universidad de Cantabria)
Duration: 01/2018-12/2020. Project Budget: 110.000 euros
Participation: Researcher and Project coordinator

4. Multiscale Climate Analysis of Flooding and Erosion at Beaches (MUSCLE-Beach)
Reference: BIA2014-59643-R

Sponsor: Ministry of Science and Technology (Ministerio de Ciencia y Tecnología)
Principal Investigator (PI): Fernando Méndez (Universidad de Cantabria)
Duration: 01/2015-12/2017. Project Budget: 116.800 euros
Participation: Researcher

5. Laboratory and numerical investigation of hydro- and morphodynamics on natural and artificial beaches (ANIMO)
Reference: BIA2012-36822
Sponsor: Ministry of Economy (Ministerio de Economía y Competitividad)
Principal Investigator (PI): **Mauricio González** y Giovanni Coco (Universidad de Cantabria)
Duration: 01/2013-12/2014. Project Budget: 95.000 euros
Participation: Researcher and Project coordinator

C.4. Contracts, technological or transfer merits

1. Feasibility Study for Integrated Coastal Management, design of actions against beach erosion in Dominican Republic (Punta Cana, Bávaro y Las Terrrenas)
Sponsor: IDB (BID) y Ministry of Turismo (Dominican Republic)
Principal Investigator (PI): **Mauricio González**
Duration: 2020-2021. Project Budget: 275.000 US$

2. Supply, training, installation and commissioning assessment of coastal hazards, vulnerability and risk for the coast of Oman.
Sponsor: Ministry of Transport and Communications of the Sultanate of Oman
Principal Investigator (PI): Raúl Medina (director proyecto), **Mauricio González** (Responsible hazard and Risk Team).
Duration: 2013-2014. Project Budget: 939.677,81 euros

3. Provision of an Integrated Coastal Zone Management Plan for Qatar
Sponsor: Wataniya Environmental Services Company
Principal Investigator (PI): Raúl Medina.
Duration: 2013-2014. Project Budget: 2.100.000,00 QAR

4. Transference of methodologies and supporting tools for coastal management in Brazil: Coastal Modeling System (SMC) and its adaptation to the Brazilian coasts (SMC-BRASIL).
Sponsor: AECID. Spanish International Cooperation Agency and Ministry of Environmental (Brazil)
Principal Investigator (PI): **Mauricio González** (Universidad de Cantabria)
Duration: 2009-2014. Project Budget: 526.254,00 euros

C.5 Scientific Adviser, editoral board and reviewer of scientific journals of the SCI

1. Scientific adviser in natural risks for the European Commission DG-RTD, Brucelas
2. Associated Editor journal indexed (Q1): Natural Hazards and Earth System Sciences (NHESS) division of the European Geosciences Union
3. Journal Reviewer: Coastal Engineering, Pure and Applied Geophysics (PAGEOPH), Journal of Hydraulic Research (IAHR), Journal of Coastal Research,...

C.6 Stays in international public or private R+D+i centers

1. Visiting professor. Dpto. of Environmental Sciences. University of Virginia. Charlottesville, USA. Oct2006-Sept 2007 (1 año).
2. Visiting Professor. Disaster Prevention Research Institute, Kyoto University, Japan, 2004 (3 mes).
3. Visiting Professor. School of Civil and Environmental Engineering, Cornell University, USA, 2001 (6 meses).