

PEDRO GONÇALVES
REMOTE SENSING AND GIS SPECIALIST

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PROFESSIONAL SUMMARY

Results-driven Geographer and GIS professional with a Master's degree in Geographic Information Systems and Spatial Planning, currently pursuing a PhD in Geographic Engineering at the Faculty of Sciences, University of Porto (2025-2028). Doctoral research focuses on "The applicability of remote sensing and machine learning algorithms for identifying critical and strategic mineral resources," combining advanced geospatial technologies with artificial intelligence for mineral exploration.

Accomplished drone pilot with many successful missions specializing in LiDAR data collection and photogrammetry. Expert in GIS analysis, spatial modeling, and remote sensing with demonstrated proficiency in satellite imagery processing and big data analytics. Strong foundation in cartographic design and spatial database management, with growing expertise in machine learning applications for geological data analysis.

Committed to delivering innovative geospatial solutions through collaborative teamwork and cutting-edge remote sensing technologies, supporting critical research in geological mapping, mineral prospectivity, and geohazard assessment. Research interests bridge traditional geological methods with emerging AI technologies to advance sustainable mineral resource exploration.

CORE QUALIFICATIONS

- Cartographic Design
- Spatial Data Creation and Analysis
- Satellite Remote Sensing
- UAV Operations
- Field Data Acquisition
- SQL and Databases
- Programming and Automation
- Big Data Analytics
- Problem-solving
- Adaptability
- Attention to detail
- Strategic Thinking & Vision

EDUCATION

PhD : Geographic Engineering – 2025 – 2028 (expected)
Institution Name - Faculty of Sciences of Porto University, Portugal
Thesis: "The applicability of remote sensing and machine learning algorithms for identifying critical and strategic mineral resources" - provisional title

Master's Degree: Geographic Information Systems and Spatial Planning
Institution Name - Faculty of Arts of Porto University, Portugal
Thesis: "Flood prone areas assessment in Leça River - hydraulic modeling for two areas of Matosinhos municipality"

Bachelor's Degree: Geography
Institution Name - Faculty of Arts of Porto University, Portugal
Thesis: "Flood risk assessment and civil protection"

WORK HISTORY

08/2019 - Present

Senior Technician

National Laboratory of Energy and Geology (LNEG)

Played a key role in the technical development of numerous national and international research projects. My functions involve utilizing Geographic Information Systems (GIS) and applying a multi-scale sensor approach, from satellite to drone (sUAS) surveys, for mineral exploration and geological characterization. I have contributed to the creation of critical cartography, such as the Critical Raw Materials Deposits Map of mainland Portugal, and have been involved in processing geological and geochemical data for various mining regions. My work consistently includes technical development roles across various projects, and more recently, the use of programming to create custom remote sensing tools.

Key Responsibilities:

- Remote Sensing Analysis: Advanced processing of satellite imagery, UAV data, and LiDAR for geological and environmental applications
- GIS Development: Design and implementation of spatial databases, geoprocessing routines, and analytical workflows
- UAV Operations: Execution of UAV missions for aerial data acquisition and multispectral analysis in mineral exploration and land monitoring
- Cartography & Mapping: Development of thematic, geological, and flood hazard maps at various scales using GIS and remote sensing data
- Scientific Communication: Author of scientific publications and presenter at international conferences in Earth sciences and applied geoinformatics
- Research & Innovation: Contributor to methodological advances in mineral prospectivity and environmental monitoring using geospatial technologies
- Project Involvement: Active technical contributor in several EU and bilateral research projects related to natural resources and climate resilience

10/2016 - 08/2019

Research Fellow

National Laboratory of Energy and Geology (LNEG)

Specialized in historical and field data acquisition, reprocessing, and database organization for geological mapping and mineral prospectivity projects. Led comprehensive digitization and georeferencing of large-volume geological maps at multiple scales (1:5,000 to 1:400,000). Created and managed GIS databases for three major projects (ZOM 3D, EXPLORA, GEO-FPI), integrating geology, geochemistry, geophysics, and topographic data.

Key Responsibilities:

- Data Management: Digitized, catalogued, and georeferenced extensive map collections from LNEG archives and exploration company reports
- Remote Sensing: Acquired and processed Sentinel-2 and ASTER satellite imagery for mineral prospecting in Barrancos and Moura-Ficalho areas
- Cartographic Production: Developed high-resolution geological maps for Ossa Morena Zone, Barrancos, and Moura-Ficalho regions
- Database Development: Built comprehensive geographic databases for project information management and cartographic data organization
- Field Operations: Configured field data collection systems using ESRI Survey and Explorer tools, designed geochemical sampling grids
- Project Development: Contributed to funding proposals for CEGMA 2.0 and Galena projects
- Demonstrated expertise in converting analog geological data to digital formats, harmonizing multi-source datasets, and producing publication-ready cartographic materials for mineral exploration and geological characterization projects.

2016 - Present

Board Member

Portuguese Association for Geographic Information Systems

Active board member contributing to the advancement of GIS technologies and methodologies in Portugal. Promoting best practices and professional development in the geospatial community.

2012 - 2013

Research Fellow

National Laboratory of Energy and Geology (LNEG)

Spatial data acquisition and systematic georeferencing of large volumes of scanned maps at different scales for digital archive modernization. Development of comprehensive metadata standards for legacy mining and exploration reports, ensuring proper cataloging and accessibility of historical geological data. Cartographic metadata development for enhanced data discovery and management of LNEG's extensive geological mapping collection.

2011 - 2013

Teaching Assistant

Faculty of Arts of Porto University

Teaching assistant for Master's program in Geographic Information Systems and Territorial Planning. Assisted students with GIS analysis, spatial modeling, and research methodologies.

RESEARCH PROJECTS

GENESIS | MACARONESIA REGION | 2024-2028

- Lead remote sensing analysis and GIS database development for nature-based climate adaptation solutions
- Manage drone survey operations for geological mapping supporting water infrastructure resilience
- Coordinate technical activities across 8 EU partner institutions in €2.5M international project

MOZAMBIQUE HYDROGEOLOGICAL MAPPING | MOZAMBIQUE | 2024-2028

- Develop custom remote sensing tools for country-wide hydrogeological assessment
- Design and implement water resource identification algorithms using satellite imagery
- Deliver capacity building training to local technical staff on advanced GIS methodologies

XTRACT | PORTUGAL | 2023-2026

- Execute LiDAR surveys for sustainable mining site monitoring and volume calculations
- Develop innovative tailings assessment methodologies for historical mine dump evaluation
- Support zero-emission mining technology validation through precision geospatial analysis

SOIL@INT CLIMATE CHANGE MITIGATION | PORTUGAL | 2023-2026

- Design multispectral and LiDAR survey protocols for soil degradation monitoring
- Develop automated toolbox for Landsat/Sentinel imagery processing and vegetation index calculation
- Implement machine learning algorithms for multitemporal soil condition analysis

GSEU - GEOLOGICAL SERVICE FOR EUROPE | EUROPE | 2022-2027

- Plan and execute UAV missions for abandoned mine site characterization across southern Portugal
- Process large-scale Sentinel-2 imagery datasets using neural network algorithms
- Contribute to European geological service platform development and data standardization

AFRICAMAVAL | AFRICA | 2022-2025

- GIS data procurement and processing for critical raw materials assessment
- Create mineral prospectivity maps for Mozambique and Morocco at multiple scales (1:1M, 1:250k)
- Develop continent-scale critical materials mapping methodologies for strategic resource planning

PANAFGEO2 | PAN-AFRICAN | 2021-2024

- Developed comprehensive training curricula for GIS, remote sensing, and spatial database management

- Created standardized content for introductory and advanced geoscientific information management

CEGMA 2.0 | PORTUGAL | 2020-2022

- Managed GNSS equipment procurement for high-precision geophysical applications

GEO-FPI CROSS-BORDER OBSERVATORY | IBERIAN PENINSULA | 2017-2019

- GIS data standardization between Portuguese and Spanish geological surveys
- Developed transboundary geological database architecture for Iberian Pyrite Belt assessment
- Produced large-scale geological maps (1:400k, 1:200k) for cross-border resource evaluation

EXPLORA NEVES-CORVO | PORTUGAL | 2016-2020

- Managed digitization and georeferencing of extensive geological map collections
- Created high-resolution geological maps (1:50k scale) integrating field survey data
- Developed comprehensive spatial databases for mineral exploration data management

ZOM 3D | PORTUGAL | 2016-2019

- Integrated multi-satellite remote sensing (Sentinel-2, ASTER, Landsat) for mineral assessment
- Produced detailed geological maps for multiple mining regions (Moura-Ficalho, Barrancos)
- Developed 3D geological modeling databases for Ossa Morena Zone resource evaluation

LNEG 2.0 | PORTUGAL | 2013-2014

- Digitized and georeferenced large volumes of historical geological maps
- Developed metadata standards for legacy mining reports and cartographic collections
- Established digital archive infrastructure supporting institutional geological data management

PUBLICATIONS

CONFERENCE ARTICLES

- **Gonçalves, Pedro**; Quental, Lídia; Patinha, Pedro; de Oliveira, Daniel Pipa Soares. "Uma abordagem de sensores multi-escala para áreas mineiras no sul de Portugal: do satélite ao sUASA ". 2024.
- Morais, Igor; Albardeiro, Luís; **Gonçalves, Pedro**; Soares, S.; Solá, A. Rita; Dias, Ruben Pereira; Ressurreição, Ricardo; et al. "Contributo do acompanhamento das grandes obras de engenharia para a cartografia geológica : Caso de estudo do Corredor Internacional Sul". 2023.
- Soares, S.; Dias, Ruben Pereira; Ressurreição, Ricardo; Morais, Igor; Albardeiro, Luís; **Gonçalves, Pedro**; Solá, A. Rita; Castro-Pina, M.. "Calcretos da região de Elvas : Estudo preliminar". 2023.
- Quental, Lídia; Patinha, Pedro; **Gonçalves, Pedro**; Pereira, Aurete. "Visualizadores 3D e de observação da Terra como fonte de promoção e expansão do conhecimento geológico". 2023.
- Carvalho, Jorge; Filipe, Augusto; **Gonçalves, Pedro**; Lisboa, Jose; Matos, João Xavier; Batista, Maria Joao; Salgueiro, Rute; de Oliveira, Daniel Pipa Soares. "Áreas potenciais de Portugal para recursos minerais do domínio público". 2023.
- Matos, João Xavier; Díez-Montes, Alejandro; Dias, Ruben Pereira; Pereira, Zélia; Machado, Susana; Solá, A. Rita; Carmona, J.J. Huerta; et al. "Programa de cartografia transfronteiriça do LNEG-IGME na Zona Sul Portuguesa nas escalas 1/200 000 e 1/400 000. Um contributo para a estratigrafia do SW Ibérico". 2023.
- Matos, João Xavier; Morais, Igor; Santos, Sara; **Gonçalves, Pedro**; Batista, Maria Joao; de Oliveira, Daniel Pipa Soares; Dias, Ruben Pereira. "Litoteca do LNEG Aljustrel, um espólio científico fundamental para a investigação da Faixa Piritosa Ibérica e da Zona de Ossa-Morena". 2023.
- Quental, Lídia; Patinha, Pedro; **Gonçalves, Pedro**; Pereira, Aurete. "Visualizadores 3D e de observação da Terra como fonte de promoção e expansão do conhecimento geológico". 2023.
- Quental, Lídia; **Gonçalves, Pedro**; de Oliveira, Daniel Pipa Soares; Patinha, Pedro; Dias, Ruben Pereira. "Dados Copernicus na caracterização e monitorização de recursos geológicos em Portugal". 2022.
- Matos, João Xavier; Morais, Igor; **Gonçalves, Pedro**; Santos, Sara; Albardeiro, Luis. "Litoteca de Aljustrel, um espólio científico do LNEG fundamental para o conhecimento geológico do Alentejo.". VII Jornadas Interdisciplinares da Mina de S. Domingos, Mértola, 2020.

- Quental, Lúcia; Batista, Maria Joao; de Oliveira, Daniel Pipa Soares; Matos, João Xavier; Dias, Ruben Pereira; **Gonçalves, Pedro**. "SENTINEL 2 and radiometric data as geological and mineral exploration characterization tools in southern Portugal". 2018.

JOURNAL ARTICLES

- de Oliveira, Daniel Pipa Soares; **Gonçalves, Pedro**; Morais, Igor; Silva, Teresa; Matos, João Xavier; Albardeiro, Luís; Filipe, Augusto; et al. "Unlocking the Secondary Critical Raw Material Potential of Historical Mine Sites, Lousal Mine, Southern Portugal". (2024): <http://hdl.handle.net/10400.9/4282>
- Fábio Marques; Pedro Dias; João Carvalho; Patrícia Represas; Bill Spicer; Vítor Araújo; João Xavier Matos; et al. "3D Constrained Gravity Inversion and TEM, Seismic Reflection and Drill-Hole Analysis for New Target Generation in the Neves–Corvo VMS Mine Region, Iberian Pyrite Belt". *Natural Resources Research* 31 5 (2022): 2321-2346. <http://dx.doi.org/10.1007/s11053-022-10081-4>
- Silva, Teresa P.; Matos, João X.; de Oliveira, Daniel; Morais, Igor; **Gonçalves, Pedro**; Albardeiro, Luís; Carvalho, Fernanda; Menda, Ugur D.; Veiga, João P.. "Orange pickeringite from the algaes 30-level adit, aljustrel mine, iberian pyrite belt, portugal". (2021): <http://hdl.handle.net/10362/128464>
- de Oliveira, Daniel Pipa Soares; Filipe, Augusto; **Gonçalves, Pedro**; Santos, Sara; Albardeiro, Luís. "Critical raw materials deposits map of mainland Portugal: new mineral intelligence in cartographic form". (2021): <http://hdl.handle.net/10400.9/3702>.
- Silva, Teresa P.; Matos, João X.; De Oliveira, Daniel; Veiga, João P.; Morais, Igor; **Gonçalves, Pedro**; Albardeiro, Luís. "Mineral Inventory of the Algaes 30-Level Adit, Aljustrel Mine, Iberian Pyrite Belt, Portugal". *Minerals* 10 10 (2020): 853. <http://dx.doi.org/10.3390/min10100853>
- Quental, Lúcia; **Gonçalves, Pedro**; Oliveira, Daniel; Batista, Maria João; Matos, João Xavier; Sousa, A.J; Marsh, S.; Carreiras, J.; Dias, Ruben. "Multispectral and hyperspectral remote sensing as a source of knowledge in the Portuguese sector of the Iberian Pyrite Belt". *Comunicações Geológicas* 107 (2020): 21-39. https://www.lneg.pt/wp-content/uploads/2020/10/04_Quental-et-al_107_III_21-39.pdf
- Matos, João Xavier; Carvalho, João; Batista, Maria João; Sousa, Pedro; Ramalho, Elsa; Marques, Fábio; Albardeiro, Luis; **Gonçalves, Pedro**; Dias, Pedro. "Geophysical surveys in the Portuguese sector of the Iberian Pyrite Belt: a global overview focused on the massive sulphide exploration and geologic interpretation". *Comunicações Geológicas* 107 III (2020): 41-78. https://www.lneg.pt/wp-content/uploads/2020/11/05_Matos-et-al_2020_107_III_41-78.pdf
- Quental, Lúcia; **Gonçalves, Pedro**; de Oliveira, Daniel Pipa Soares; Batista, Maria Joao; Matos, João Xavier; Sousa, António Jorge; Marsh, Stuart; Carreiras, J.; Dias, Ruben Pereira. "Multispectral and hyperspectral remote sensing as a source of knowledge in the Portuguese sector of the Iberian Pyrite Belt". (2020): <http://hdl.handle.net/10400.9/3337>
- VICENTE, Sandro; MAIA, Miguel; ARAÚJO, António; **GONÇALVES, Pedro**; MATOS, João X.; NOGUEIRA, Pedro. "Geologia e geoquímica da mina de Mociços: Modelação 3D.". (2020): <http://hdl.handle.net/10174/27455>
- Marques, Fábio; Xavier Matos, João; Sousa, Pedro; Represas, Patrícia; Araújo, Vítor; Carvalho, João; Morais, Igor; et al. "The role of land gravity data in the Neves-Corvo mine discovery and its use in present-day exploration and new target generation". *First Break* 37 8 (2019): 97-102. <http://dx.doi.org/10.3997/1365-2397.n0051>
- **Gonçalves, Pedro**; Marafuz, Inês; Gomes, Alberto. "Flood hazard, Santa Cruz do Bispo Sector, Leça River, Portugal: a methodological contribution to improve land use planning". *Journal of Maps* 11 5 (2014): 760-771. <http://dx.doi.org/10.1080/17445647.2014.974226>
- Marafuz, Inês; **Gonçalves, Pedro**; Gomes, António Alberto; Bateira, Carlos. "A implementação da Diretiva 2007/60/CE em Portugal : problemas na definição de perímetros de inundação e na identificação de elementos expostos". (2013): <https://hdl.handle.net/10216/83158>

BOOK CHAPTERS

- Isabel Montoya-Montes; Lúcia Quental; Inés Galindo; Eoghan P. Holohan; Marion Jaud; Kieran Parker;

Domingos Rodrigues; et al. "Copernicus Services and Geohazards Management. Lessons Learnt from Citizens' Observatories" (2025). DOI: 10.1007/978-3-031-53371-6_4

- Martins, Márcia; **Gonçalves, Pedro**; Gomes, Alberto; Teixeira, José. "Definition of Flood-Prone Areas: A Comparison between HEC-RAS and Iber Software Results" In Advances in Natural Hazards and Hydrological Risks: Meeting the Challenge, 127-131. Springer International Publishing, 2020. DOI: 10.1007/978-3-030-34397-2_25

WORKING DOCUMENTS

- Albardeiro, Luis; Morais, Igor; Matos, João Xavier; Oliveira, Daniel de; **Gonçalves, Pedro**; Santos, Sara; Marques, Fábio; Mendes, Márcia. "Geology, Mining History and Field Stops – Aljustrel mine region" (2019)

BOOKS

- Díez-Montes, A.; Matos, J.X.; Dias, R., ; Pereira, Z.; Machado, S.; Solá, R.; López López, M.; et al. Memoria Técnica del Mapa Geológico de la Zona Surportuguesa, esc. 1:400.000. Programa Interreg V-A España-Portugal (POCTEP). GEO_FPI: Observatorio transfronterizo para la valoración geo-económica de la Faja Pirítica Ibérica (0052_GEO_FPI_5_E). Espanha: Instituto Geológico y Minero de España (IGME) - Laboratório Nacional de Energia e Geologia (LNEG). 2021.
- Locutura, J.R.; López, M.T.L.; Matos, João Xavier; Santos, Sara; Morais, Igor; Albardeiro, Luis; **Gonçalves, Pedro**; et al. Memoria Técnica - Mapa Metalogenético De La Zona Surportuguesa, Escala 1/400.000. Portugal. 2020.
- **Gonçalves, Pedro**; Marafuz, Inês; Gomes, António Alberto. Avaliação da perigosidade a cheias progressivas no vale do rio Leça, setor de Leça do Balio, Matosinhos. 2014.

CONFERENCE POSTERS

- **Gonçalves, Pedro**; Matos, João Xavier; Quental, Lídia; Batista, Maria João; Marques, Fábio; Sousa, Pedro; Santos, Sara; Morais, Igor; Albardeiro, Luís. "A utilização da deteção remota e da cartografia temática na prospeção regional de minerais metálicos em Moura-Ficalho, na região de Ossa-Morena.". Trabalho apresentado em 1ª Edição EsSIG - 2019, 2019.
- Marques, Fábio; Matos, João Xavier; Carvalho, João; Sousa, Pedro; Batista, Maria João; Represas, Patricia; **Gonçalves, Pedro**; et al. "Processing and interpretation of gravity, magnetic and radiometric data of the Neves-Corvo region, Iberian Pyrite Belt, Portugal". Trabalho apresentado em EGU 2019, 2019.
- **Gonçalves, Pedro**; Albardeiro, Luis; Morais, Igor; Marques, Fábio; Matos, João Xavier; Quental, Lídia; Batista, Maria João; Sousa, Pedro. "Remote sensing and thematic mapping applied to mineral exploration in the Moura-Ficalho base metals mining region, Ossa-Morena Zone, Portugal". Trabalho apresentado em EGU 2019, 2019.
- Salgueiro, Rute; Matos, João Xavier; **Gonçalves, Pedro**; Batista, Maria João; Morais, Igor; Albardeiro, Luís; Ramalho, Elsa; Quental, Lídia. "Geological and geochemistry correlation mapping of the Barrancos copper (gold) vein mineralizations, Ossa-Morena Zone, Portugal". Trabalho apresentado em EGU 2019, 2019.
- **Gonçalves, Pedro**. "Definition of Flood Prone Areas Based on Hydraulic Modeling in the Leça Watershed (Matosinhos Municipality)". Trabalho apresentado em IJUP, 2013.
- **Gonçalves, Pedro**; Carvalho, João. "Land Use Changes in Leça Watershed (Portugal): a Prospective Approach.". Trabalho apresentado em IJUP, 2013.
- **Gonçalves, Pedro**. "A aplicabilidade dos SIG na Delimitação de Perímetros de Inundação". Trabalho apresentado em ESRI User Meeting, 2012.

PREFACES/POSTFACES

- Gonçalves, Pedro; Matos, João Xavier; Oliveira, Daniel; Batista, Maria João; Pereira, Zélia; Albardeiro, Luis; Morais, Igor; et al. "Iberian Pirite belt Exploration". Prefácio para Comunicações Geológicas, 7-8. Portugal. 2020.

CONFERENCE ABSTRACTS

- Matos, João Xavier; Díez-Montes, Alejandro; Pereira, Zélia; Solá, Rita; Dias, Ruben; Ressurreição, Ricardo; Machado, Susana; et al. "The South Portuguese Zone 1/400 000 LNEG-IGME-Junta de Andalusia common mapping program. A contribution for the Iberian Pyrite Belt VHMS exploration in Portugal and Spain". em EGU General Assembly 2020, 2020. <https://doi.org/10.5194/egusphere-egu2020-19381>
- **Gonçalves, Pedro**; Matos, João Xavier; Quental, Lúdia; Batista, Maria João; Marques, Fábio; Sousa, Pedro; Santos, Sara; Morais, Igor; Albardeiro, Luís. "A utilização da deteção remota e da cartografia temática na prospeção regional de minerais metálicos em Moura-Ficalho, na região de Ossa-Morena.". 1ª Edição EsSIG - 2019, Porto, 2019.
- Marques, Fábio; Carvalho, João; Sousa, Pedro; Matos, João Xavier; Represas, Patricia; Inverno, Carlos; Pacheco, Nelson; et al. "Interpretação de dados Gravimétricos para a região mineira de Neves-Corvo (Faixa Piritosa Ibérica)". Trabalho apresentado em IX Cong. Jovens Investigadores em Geociências, LEG 2019, Estremoz, 2019.
- Marques, Fábio; Matos, João Xavier; Carvalho, João; Sousa, Pedro; Batista, Maria João; Represas, Patricia; **Gonçalves, Pedro**; et al. "Processing and interpretation of gravity, magnetic and radiometric data of the Neves-Corvo region, Iberian Pyrite Belt, Portugal". Trabalho apresentado em EGU 2019, Viena, 2019.
- **Gonçalves, Pedro**; Matos, João Xavier; Quental, Lúdia; Batista, Maria João; Marques, Fábio; Sousa, Pedro; Morais, Igor; Albardeiro, Luís. "Remote sensing and thematic mapping applied to mineral exploration in the Moura-Ficalho base metals mining region, Ossa-Morena Zone, Portugal". Trabalho apresentado em EGU, Viena, 2019.
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- Salgueiro, Rute; Matos, João; **Gonçalves, Pedro**; Batista, M J; Morais, Igor; Albardeiro, Luis; Ramalho, Elsa; Quental, Lúdia. "Geological and geochemistry correlation mapping of the Barrancos copper (gold) vein mineralizations, Ossa- Morena Zone". Trabalho apresentado em EGU General Assembly, Viena, 2019.
- Pena, Teresa; Matos, João; Oliveira, Daniel de; **Gonçalves, Pedro**; Albardeiro, Luis; Veiga, J. "Mineralogical Characterization of the Algaes 30-level addit for cultural tourism, Aljustrel Mine, Iberian Pyrite Belt". Trabalho apresentado em Material 2019, Lisboa, 2019.
- Marques, Fábio; Carvalho, João; Matos, João; Sousa, Pedro; Represas, Patrícia; Inverno, Carlos; Pacheco, Nelson; et al. "Interpretação dos dados Gravimétricos para a região mineira de Neves-Corvo (Faixa Piritosa Ibérica)". Trabalho apresentado em Congresso Jovens Investigadores em Geociências, Estremoz, 2019.
- **Gonçalves, Pedro**; Matos, João; Quental, Lúdia; Batista, M J; Marques, Fábio; Sousa, Pedro; Santos, Sara; Morais, Igor; Albardeiro, Luis. "Utilização da deteção remota e da cartografia temática na prospeção regional de minerais metálicos em Moura-Ficalho, na região de Ossa-Morena". Trabalho apresentado em 1ª Edição EsSIG - 2019, Porto, 2019.
- Afonso, Paula; Oliveira, R.J.; Mendes, P.; Borges, J.F.; Caldeira, B.; **Gonçalves, Pedro**; Matos, João Xavier; Nogueira, Pedro. "Magnetometria e geoquímica de metais pesados na região de Cabeço de Vide – Sector de Alter do Chão". Trabalho apresentado em VIII Congresso de jovens Investigadores em Geociências, LEG 2018, Elvas, 2018.
- Matos, João Xavier; **Gonçalves, Pedro**; Salgueiro, Rute; Batista, Maria João. "Enquadramento Geológico e Geoquímico das Mineralizações de Cobre (Ouro) de Barrancos, na Zona de Ossa Morena, Portugal". Trabalho apresentado em X Congresso Nacional de Geologia, Ponta Delgada, 2018.
- Quental, Lúdia; Batista, Maria João; Oliveira, Daniel; Matos, João Xavier; Dias, Ruben; **Gonçalves, Pedro**. "Sentinel 2 e dados radiométricos para a caracterização Geológica e de Prospeção no Sul de Portugal". Trabalho apresentado em X Congresso Nacional de Geologia,, Ponta Delgada, 2018.
- **Gonçalves, Pedro**; Marafuz, Inês; Gomes, Alberto. "Avaliação da perigosidade a cheias progressivas no vale do rio Leça, sector de Leça do Balio, Matosinhos". Trabalho apresentado em XIV Colóquio Ibérico de Geografia, Guimarães, 2014.

- Marafuz, Inês; **Gonçalves, Pedro**; Pereira, António; Gomes, Alberto. "The implementation of the Floods Directive on Portugal: problems on the definition of floods-prone areas and vulnerability". Trabalho apresentado em 8th INTERNATIONAL CONFERENCE OF EWRA, Porto, 2014.
- **Gonçalves, Pedro**; Gomes, Alberto. "Definition of Flood Prone Areas on Leça Watershed, Matosinhos - Influence of Digital Terrain Model in Hydraulic Modeling". Trabalho apresentado em VI Congresso Nacional de Geomorfologia, Coimbra, 2013.
- **Gonçalves, Pedro**; Marafuz, Inês; Gomes, Alberto. "Definition of Flood Prone Areas on Leça Watershed (Portugal): Methodologies and implications on Land Management.". Trabalho apresentado em IX SINAGEO, Rio de Janeiro, 2012.

OTHER PRODUCTIONS

- Critical Raw Materials Deposits Map in Mainland Portugal, Scale 1/1 000 000 (2021). Oliveira, Daniel; Filipe, Augusto; Santos, Sara; **Gonçalves, Pedro**; Albardeiro, Luis.
- Geology and Energy [Oral Communication] (2021). Quental, Lídia; **Gonçalves, Pedro**; Simões, Teresa; Costa, Paula; Couto, António; de Oliveira, Daniel Pipa Soares; Dias, Ruben Pereira.
- Geological and Mining Map, Neves-Corvo Region, Scale 1/50 000 (2020). Matos, João Xavier; Albardeiro, Luis; Morais, Igor; Mendes, Márcia; Pereira, Zélia; Batista, Maria João; Salgueiro, Rute; et al.
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