

Curriculum Vitae

Personal information

First name / Surname **Lorena Alvarez Alvarez**
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 Nationality Spanish

Occupational field **Geologist / Hydrogeologist**

Work experience

Dates	March 2010 - Present
Occupation or position held	Researcher in geology and hydrogeology area
Main activities and responsibilities	<p>Main projects:</p> <ul style="list-style-type: none"> - "Hydrogeophysical modelling for geothermal studies" (HUNOSA). - "Hydrogeophysical characterization of the coastal aquifer of Perlorá" (Tudela Veguin, SA). - "Hydrogeological study of Gijón Aquifer" (EMA). - "Hydrogeological study for the extension of a urban waste landfill" (COGERSA). - "Flow and heat transport numerical model in the Barredo shaft" (HUNOSA). - "Diferencial Microgravimetric control in an experiment of CO2 injection in coal" (HUNOSA). - "Hydrogeological study in the El Perecil Quarry" (Tudela Veguin, SA). <p>Groundwater numerical modelling. Field work: hydrogeology cartography, water points measurement and gaugins. Geophysics. Reports and technic dossiers.</p>
Employer	Hydro-geophysics and NDT Modeling Unit Department of Mining Exploration and Prospection – University of Oviedo
Dates	October 2007 – April 2009
Occupation or position held	Studies technician
Main activities and responsibilities	<p>Study of public bidding works. Reports and technic dossiers. Support to departments of quality (ISO 9001), environment (ISO 14001) and security (OSAS 18001).</p>
Employer	EXPROMAR, Obras y Proyectos, S.A.
Dates	December 2006 – October 2007
Occupation or position held	Geologist
Main activities and responsibilities	<p>Geotechnical studies for building and civil projects, planning for prospecting, field work and team coordination</p>
Employer	Compañía de Servicios Integrados de Calidad y Control (CSICC) (Quality control)

Education and training

Date	2017 - Present
Title of qualification awarded	Production engineering, mining – environmental and projects PHD student
Principal subjects / occupational skills covered	Title: "Hydrogeological and geothermal modelling of the Asturian Central Coal Basin"
Name and type of organisation providing education and training	University of Oviedo
Date	2015
Title of qualification awarded	Bachelor thesis
Principal subjects / occupational skills covered	Title: "Preliminary regional scale hydrogeological model in the Asturian Central Carboniferous Basin" Qualif.: 10
Name and type of organisation providing education and training	University of Oviedo
Date	2006
Title of qualification awarded	Long cycle degree in Geology (5 years)
Principal subjects / occupational skills covered	Petrology, Structural Geology, Tectonics, Hydrogeology, Geophysics, Environmental Geology, Engineering Geology, Energetic Resources, Geochemistry, Mineral Resources, Sedimentary Systems, Geomorphology, Paleontology, Crystallography and Mineralogy.
Name and type of organisation providing education and training	University of Oviedo

Additional education

- **Technician in Occupational Risk Prevention** [600 h / 2008]
- Course "*III Hydrogeological modelling course*" [28 h / 2018]
- Course "*R&D Project management*" [100 h / 2018]
- Course "*Engineering resarch fundamentals*" [100 h / 2018]
- Course "*Introduction to geothermal*" [20 h / 2017]
- Course "*GIS data formats, desing and quality*" [20 h / 2016]
- Course "*Fundamentals of GIS*" [20 h / 2016]
- Course "*Non-conventional hydrocarbons*" [25 h / 2015]
- Course "*Ramón Querol, Exploration and production of hydrocarbons*" [75 h / 2012]
- Course "*The art of science and its context*" with Roel Snieder [20 h / 2011]
- Course "*Specialization flow and groundwater quality*" [68 h / 2010]
- Course "*MT3D quality and PEST calibration*" [30 h / 2010]
- Course "*Modeling Subsurface Flow using FEFLOW 6*" [18 h / 2010]
- Course "*Computerized Geographic Information Systems*" [100 h / 2009]
- Course "*Concrete Analyst*" [285 h / 2006]
- Course "*Soil Analyst*" [359 h / 2006]
- Course "*The world of residue: characterization, treatment and management*" [45 h / 2004]

Personal skills and competences

Mother tongue **Spanish**
Other language(s)

Self-assessment
European level (*)

English

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
B1 Independent user	B1 Independent user	B1 Independent user	B1 Independent user	B1 Independent user

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences	Committed and responsible to working. Well organized. Ability to work in multidisciplinary and multicultural teams.
Organisational skills and competences	Good team player Experience in team management (responsible for a team of 4 people in Geotechnical department).
Technical skills and competences	<ul style="list-style-type: none"> - Realize, conceptualize and modelling hydrogeological systems (flow and transport groundwater modeling) with appropriate softwares (Hydrogeological Unit). - Program, organize and realize field work (Hydrogeological Unit and Geotechnical department). - Collect, analyze, interpret and depict geological and hydrogeological data using appropriate field technics (geological, geophysics and hydrogeological methods) and laboratory technics (Hydrogeological Unit and Geotechnical department). - Realize and evaluate geotechnical studies (Geotechnical department).
Computer skills and competences	<ul style="list-style-type: none"> -Work experience with Visual MODFLOW, Processing MODFLOW, SEAWAT, MT3D, Hydrogeobuilder, FEFLOW, COMSOL Multiphysics. -Work experience with Microsoft Office tools (Word, Excell, Access, PowerPoint and Project) -Work experience with AUTOCAD, Golden Software SURFER and ArcGIS. -Skills of MATLAB, Microstation V8, Corel Draw, Adobe Indesing, Adobe Photoshop, Adobe Ilustration and Presto -Skills of SQL
Driving licence	B1
Additional information	<p>Publication and lecture: L. Álvarez Álvarez, A. González Quirós, L. Calvo Buelga & J.P. Fernández Álvarez (2018) Modelo hidrogeológico preliminar aplicado al estudio de los flujos regionales de la Cuenca Carbonífera Central Asturiana. Congreso Ibérico sobre Agua Subterránea, Medio Ambiente, Salud y Patrimonio (Salamanca). ISBN: 978-84-938046-6-4</p> <p>Publication: L. Calvo Buelga, A. González Quirós, L. Álvarez Álvarez & J.P. Fernández Álvarez (2018) Evaluación conceptual y numérica de la influencia de la explotación minera en la definición de sus condiciones de contorno y su modelo numérico. Congreso Ibérico sobre Agua Subterránea, Medio Ambiente, Salud y Patrimonio (Salamanca). ISBN: 978-84-938046-6-4</p> <p>Publication: Álvarez-Álvarez L & Fernández-Álvarez JP (2018) Evaluación numérica de las condiciones de contorno de flujo de la Cuenca Carbonífera Central Asturiana. II Jornadas de Investigación, Desarrollo e Innovación en Ingeniería Civil. ISBN: 978-84-17445-32-4</p> <p>Publication and lecture: Álvarez-Álvarez L (2018) La reconversión de la Cuenca Carbonífera Central Asturiana. VII Jornadas Internacionales de Doctorado y I Congreso de Investigación de la Universidad de Oviedo. Premiado por jurado. ISBN: 978-84-17445-07-2</p> <p>Publication: Álvarez-Álvarez L & Fernández-Álvarez JP (2017) Contribución de una modelización preliminar 2D en el desarrollo de un modelo hidrogeológico a escala regional. I Jornadas de Investigación, Desarrollo e Innovación en Ingeniería Civil. ISBN: 978-84-17445-08-9</p> <p>Publication: Fernández-Álvarez JP, Álvarez-Álvarez L & Díaz-Noriega R (2015) Groundwater Numerical Simulation in an Open Pit Mine in Limestone Formation Using MODFLOW. Mine Water and Environment. DOI 10.1007/s10230-015-0334-8.</p> <p>Publication and lecture: Álvarez-Álvarez L, Díaz-Noriega R, Fernández-Álvarez JP (2012) Simulación numérica del flujo subterráneo en una explotación minera a cielo abierto sobre una formación carbonatada utilizando MODFLOW y FEFLOW. 7ª Asamblea hispano portuguesa de geodesia y geofísica</p> <p>Publication: Díaz-Noriega R, Fernández-Álvarez JP, Álvarez-Álvarez L (2012) Estudio comparativo de los simuladores de flujo subterráneo Visual MODFLOW y FEFLOW 6.0. 7ª Asamblea hispano portuguesa de geodesia y geofísica</p>