UNIVERSIDAD DE OVIEDO

Hydro-Geophysics
and NDT Modelling Unit

Curriculum Vitae

Personal information

First name / Surname	**Lorena Alvarez Alvarez**
Telephone	+34 606 683 542
E-mails	alvarez.alvarez.lorena@gmail.com lorena@hydrogeophysicsndt.com
Nationality	Spanish

Occupational field

Geologist / Hydrogeologist

Work experience

Dates	March 2010 - Present
Occupation or position held	**Researcher technician in geology and hydrogeology area**
Main activities and responsibilities	Main projects: - "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). Groundwater numerical modelling. Field work: hydrogeology cartography, water points measurement and gaugins. Geophysics. Reports and technic dossiers.
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	Study of public bidding works. Reports and technic dossiers. Support to departments of quality (ISO 9001), environment (ISO 14001) and security (OSAS 18001).
Employer	EXPROMAR, Obras y Proyectos, S.A.

Dates	December 2006 – October 2007
Occupation or position held	**Geologist**
Main activities and responsibilities	Geotechnical studies for building and civil projects, planning for prospecting, field work and team coordination
Employer	Compañía de Servicios Integrados de Calidad y Control (CSICC) (Quality control)

Education and training

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 "*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	Understanding		Speaking		Writing
European level (*)	Listening	Reading	Spoken interaction	Spoken production	
English	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	- 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	-Work experience with Visual MODFLOW, SEAWAT, MT3D, Hydrogeobuilder, FEFLOW and COMSOL Multiphysics. -Work experience with Microsoft Office tools (Word, Excell, Access, PowerPoint and Project) -Work experience with AUTOCAD, Golden Sofware 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

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.

Publication and lecture: Álvarez-Álvarez L, Díaz-Noriega R, Fernández-Álvarez JP (2012) Groundwater numerical simulation in an open pit mine in a limestone formation using MODFLOW and FEFLOW. 7ª Portuguese-Spanish Assembly of Geodesy and Geophysics.

Publication: Díaz-Noriega R, Fernández-Álvarez JP, Álvarez-Álvarez L (2012) Comparative study of the numerical simulation codes Visual MODFLOW vs FEFLOW 6.0. 7ª Portuguese-Spanish Assembly of Geodesy and Geophysics.