

Nominations for IAH-MAR Co-chairs

Dear Dr. Dillon;

Please, allow me introducing myself: My name is Enrique Fernández Escalante, Industrial Doctor specialized in hydrogeology with 29 years of experience in this branch, with special dedication on Integrated Water Resources Management, Environmental hydrogeology, Managed Aquifer Recharge and close related techniques.

I develop my professional activity for the R&D Dpt. In Tragsa Group (Spain), and in parallel for cooperation projects in the WB, IAEA and ADB (total 11 missions assigned up to date).

I have participated in some R&D projects on Managed Aquifer Recharge (RECACUIF, DINA-MAR, MARSOL, MARSoluT).

I have had a total of six contracts as reviewer of projects for the European Commission, apart from reviewing Spanish National SEPI call (as a current yearly activity in my work).

I've also performed a position as Associated Lecturer for the Complutense University of Madrid until 2012, holding a good balance between theory and practice, Academia and industry. Since then, I impart classes in the UPM Master on IWRM (eventual relation with the University).

Hence, I apply to renew my IAM MAR Commission co-chair condition, with the following motivations and commitments:

- 1- To keep disseminating the advantages of MAR technique.
- 2- To keep cooperating in capacitation activities and lending a hand to combat climate change adverse impacts from the aquifers.
- 3- Helping interested people to develop and refine activities to advance MAR by supporting
- 4- Helping in the development of ISMAR Symposia.
- 5- Ensuring that there will be refereed publications about MAR from different platforms.
- 6- Seeking to maximise international benefits of the IAH MAR Commission, taking particular account of developing countries.
- 7- Maintaining the DINA-MAR web site, sister site of IAH MAR Commission one.
- 8- Sending around occasional emails to the list with relevant news.
- 9- Convening plenary sessions of IAH-MAR at ISMARs, IAH Congresses at as many other relevant conferences as possible to widen connections and advance activities.
- 10- Writing letters of support to those who request it for MAR-related research proposals (offering IAH-MAR communication channels to disseminate outcomes to a very relevant international audience).
- 11- Contacting networks of the commission and keeping them engaged.

- 12- Liaising with organisations to maximise the achievement of objectives of the IAH MAR Commission.
- 13- Preparing or helping to prepare annual reports on IAH-MAR activities and newsletters.
- 14- Think about new ways to enhance MAR technique so as to improve its implantation degree in the IWRM current schemes at International level, and especially within Europe and South America.

Most of these tasks are developed in my current activity since 2006, when I accessed a first R&D project on MAR with external support from a public call (RECACUIF), even before when I was conducting my PhD on MAR.

I enclose my summarized CV in order to expose the necessary info to evaluate my fitness for this assignation.

Please, notice as an Industrial Doctor working for a Company, I meet more constraints to attend Conferences and Seminars than members working for the Academia. I already advance I will not be able to be an “always present” member of the Commission’s activities.

Looking forward to receiving news from you, thank you very much



Enrique Fernández Escalante

CURRICULUM VITAE



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EDUCATION

- Geological Sc. Degree, Universidad Complutense de Madrid, 1990.
- Hydrogeology specialist (master), UCM, 1990.
- Master in Environmental Sciences. Universidad Politécnica de Madrid (UPM), 1993.
- Pedagogic Adaptation Course (CAP). Educational Sciences Faculty. UCM, 2003.
- PhD by Complutense University, *cum laude* & highest qualification. January 2005.

ACCREDITATIONS

- Accredited to sign environmental impacts Studies, JCL nº 1999101966AFE.
- External & Assistant lecturer at Moncloa Campus (UCM+UPM).
- Over 50 courses related to my field of activity.
- Over 65 workshops and seminars.
- Around 700 hours imparted at the University as Associated Lecturer.
- Researcher participant at 23 R&D and innovation Projects. Three as coordinator.
- Director of six research Works plus a PhD and Master.
- Certificate of appreciation. IAH MAR Commission, 2013 October.
- Co-coordinator of IAH MAR Commission since 2014 February 27th.

PROFFESIONAL EXPERIENCE

- **DAMES & MOORE**, from 1990 to 1992. Collaboration in 10 projects.
- **INGIOPSA**, 1993- 1994. Collaboration in 2 projects.
- **Investigaciones Geológicas y Mineras (INGEMISA)**. 1994-95 Hydrogeology AFA project.
- **TRAGSATEC. 1995-2007**. Rural Engineering and Water Planning & Management. Technician. Coordination or participation in **90** accredited projects and Studies in 6 countries.
- **Empresa de Transformación Agraria (TRAGSA)**. **2007 to now**, R&D Subdirector as Specialist. Participation in 23 R&D projects (two as coordinator, DINA-MAR and EARSAC). Eight technical projects/studies in more than 10 countries. Some on cooperation.
- Work as **FREELANCE** hydrogeologist. About 18 projects.

- Associated Lecturer at Complutense University of Madrid from 2009. Stratigraphy Dpt.
- Master lecturer at Madrid Polytechnic University, Agronomic Faculty since 2008.
- Technical Secretary of the Spanish Water Technological Platform since 2013 October.
- European Commission reviewer for R&D projects. From 2015 January. Six contracts
- Consultant for the World Bank. From 2015 July. Nine missions since then
- Instructor on MAR courses for the European Commission (2016 May) & IAEA, 2016 July.
- Consultant for the ADB since 2017 September.

OTHER MERITS

- Author, coauthor or editor of 22 books and eight chapters, most of them related to Water Management, Water quality and Managed Aquifer Recharge (MAR) technique.
- Published 37 articles in research magazines.
- Published 75 articles in/from congresses, Workshops, etc.
- Published 68 minor communications (abstracts y posters).
- Redacted and distributed materials for 15 courses.
- Author/master of five websites / one Blog
- Participant in a Project which obtained an invention patent, another expects resolution.
- Climber and diver.

Linked-In profile: https://www.linkedin.com/in/enrique-fernández-escalante-23235623?trk=nav_responsive_tab_profile

Research Gate profile: https://www.researchgate.net/profile/Enrique_Escalante

SOME RECENT REMARKABLE PUBLICATIONS

- 1- San Sebastián Sauto, J., Fernández Escalante, E., Calero Gil, R., Carvalho, T. & Rodríguez-Escales, P. (2018): Characterization and benchmarking of seven managed aquifer recharge systems in south-western Europe. - Sustain. Water Resour. Manag., 4 (2), 193–215; DOI: 10.1007/s40899-018-0232-x.
- 2- Dillon, P., Stuyfzand, P., Grischek, T., Lluria, M., Pyne, R.D.G., Jain, R.C., Bear, J., Schwarz, J., Wang, W., Fernandez, E., Stefan, C., Pettenati, M., van der Gun, J., Sprenger, C., Massmann, G., Scanlon, B.R., Xanke, J., Jokela, P., Zheng, Y., Rossetto, R., Shamruk, M., Pavelic, P., Murray, E., Ross, A., Bonilla Valverde, J.P., Palma Nava, A., Ansems, N., Posavec, K., Ha, K., Martin, R. & Sapiano, M. (2018): Sixty years of global progress in managed aquifer recharge. - Hydrogeology Journal; <https://doi.org/10.1007/s10040-018-1841-z>

- 3- Fernandez Escalante, A.E. (2015): Practical Management to Minimize the Effects of Clogging in Managed Aquifer Recharge Wells at Two Sites in the Guadiana Basin, Spain. - J. Hydrol. Eng., 20, Special Issue: 8th International Symposium on Managed Aquifer Recharge, B5014002-1-12; American Society of Civil Engineers (ASCE).
- 4- Patent of invention: clogging sampler. Described at: Fernández Escalante, E. (2014). "Practical Management to Minimize the Effects of Clogging in Managed Aquifer Recharge Wells at Two Sites in the Guadiana Basin, Spain." J. Hydrol. Eng. 10.1061/(ASCE)HE.1943-5584.0001047, B5014002. Patent ES 2 156 821 B1: http://www.oepm.es/pdf/ES/0000/000/02/15/68/ES-2156821_B1.pdf
- 5- Fernandez Escalante, A.E., Calero Gil, R., San Miguel Fraile, M.A. & Sánchez Serrano, F. (2014): Economic Assessment of Opportunities for Managed Aquifer Recharge Techniques in Spain Using an Advanced Geographic Information System (GIS). - Water, 6, 2021-2040; doi:10.3390/w6072021.
- 6- Fernandez Escalante, A.E., San Miguel Fraile, M.Á. & Sánchez Serrano, F. (2014): El hidrogeoportal DINA-MAR. Aplicación en soporte GIS para determinar zonas susceptibles de aplicar técnicas de recarga gestionada en España. - Boletín Geológico y Minero, 125 (3), 341-368.
- 7- EDISOS project Final book on MAR in urban areas and SUDS. The Comprehensive Management of Rainwater in Built-up Areas.
http://www.tragsa.es/layouts/GrupoTragsa/Ficha-Publicacion.aspx?ID=16&Language_cd=en
- 8- MARSOL Project Book: 2002-2012, una década de recarga gestionada. Acuífero de la Cubeta de Santiuste (Castilla y León). <http://www.dina-mar.es/pdf/IF-hh7-v34c.pdf>
- 9- Fernández Escalante, E. and San Sebastián Sauto, J. (2017). "La recarga gestionada en el acuífero Los Arenales, Castilla y León, España. Soluciones tecnológicas aplicadas al desarrollo rural". In Manejo de la recarga de acuíferos: un enfoque hacia Latinoamérica. Chapter 22. IMTA, México. https://www.imta.gob.mx/biblioteca/libros_html/manejo-recarga-acuiferos-ehl.pdf
- 10- Fernandez Escalante, A.E. & San Sebastián Sauto, J. (2012): Rechargeable Sustainability. The Key is the Storage. - Book written in Spanish and English, Ed. Tragsa, May 2012, ISBN: 13:978-84-615-8704-9, 126 p.
- 11- DINAMAR Project Final book. La gestión de la recarga de acuíferos en el marco del desarrollo sostenible. <http://www.dina-mar.es/pdf/dina-mar-2007-2011-libro.pdf> ISBN 13:978-84-614-5123-4
- 12- Rodríguez-Escales, P., Canelles, A., Sanchez-Vila, X., Folch, A., Kurtzman, D., Rossetto, R., Fernández-Escalante, E., Lobo-Ferreira, J.-P., Sapiano, M., San-Sebastián, J. & Schüth, C. (2018): A risk assessment methodology to evaluate the risk failure of managed aquifer recharge in the Mediterranean Basin. - Hydrol. Earth Syst. Sci., 22, 3213–3227.
- 13- Fernandez Escalante, E. & San Sebastián Sauto, J. (2017): Soluciones tecnológicas para una mayor eficiencia en dispositivos MAR. - In: Escolero, O., Gutiérrez, C., & Mendoza, E. (eds.), Manejo de la recarga de acuíferos: un enfoque hacia Latinoamérica, 843-919. IMTA, México. https://www.imta.gob.mx/biblioteca/libros_html/manejo-recarga-acuiferos-ehl.pdf