

# NEWS

# & information

IAH - THE WORLD-WIDE GROUNDWATER ORGANISATION

Furthering the understanding, wise use and protection of groundwater resources throughout the world

## AUGUST 2021

Also in this issue:

From our President

Media focus

Pregunte a un miembro/  
Ask a member

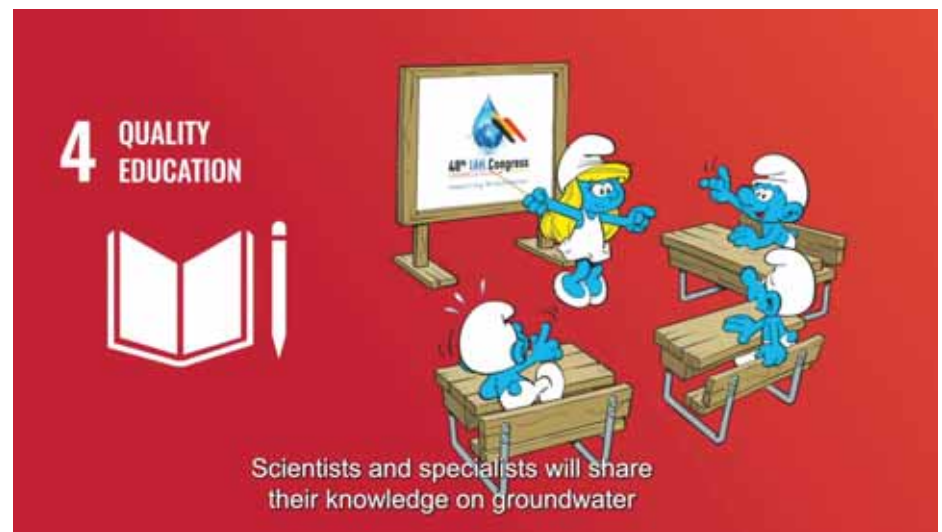
Strategic Overview Series

Member competitions and opportunities

and the regular IAH announcements and news

and the regular IAH announcements and news

## Let's all do some smurfy planning...



Thanks to our Belgian colleagues, we've been receiving some "expert advice" for congress planning.

### COUNCIL VACANCIES - VOTING NOW OPEN

Following the sad passing of Ralf Klingbeil and Devinder Kumar Chadha, we now have elections to fill their vacant posts on IAH Council. Voting is now open and all IAH members who have paid their subscriptions are entitled to vote.

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### IAH IN PROGRESSION: MEMBER/SUPPORTER SURVEY

IAH is looking ahead to the next 10 years. How are we doing? What services and opportunities should we be providing? Our survey on the future of IAH is now available. We need to know how you would like your association to develop during the next decade.

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HYDROGEOLOGISTS

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@iahgroundwater



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Find IAH groups



[www.facebook.com/iah.org](http://www.facebook.com/iah.org)

AUGUST 2021

# 2021: A SPECIAL YEAR FOR IAH CONGRESSES!

The Covid-19 pandemic challenges us all in many ways and not least in how conferences are managed. We have also had to change our plans, with the historic decision to run two congresses in 2021. Brazil and Belgium will present a unique IAH experience to create an opportunity for many more people to participate. IAH members - see prize draw and application process for congress support for those on low incomes on page 20.

## SECRETARIAT



The Brazilian community of hydrogeologists, proudly represented by the Brazilian National Chapter of the IAH, propose the first congress organised jointly by the International Association of Hydrogeologists (IAH), the Brazilian National Chapter of IAH/Brazilian Groundwater Association (ABAS) and the Latin-American Groundwater Association for Development (ALHSUD). The event will help promote the connection of hydrogeologists from Latin America as never before and strengthen IAH's reach worldwide.

WhatsApp groups have been set up for the Congress Themes and online events also are taking place right up to the congress. You can participate at: <https://iah2021brazil.org/en/find-out-more/>

Management Aquifer Recharge

Groundwater and Climate Change

Groundwater Flow, Water Cycle and Ecosystem

Karst and Fractured Aquifer

Groundwater and Gender

Geochemistry

Groundwater Pollution and Remediation

Transboundary Aquifers

Emerging Tools and Tech for Groundwater Investigation

Numerical Modeling

A stellar cast of participants is being assembled - see <https://iah2021brazil.org/en/confirmed-presence/>

Share the joy and participate in the 47th IAH Congress in Brazil: 22-27 August 2021.

 **Brazil Congress website - <https://iah2021brazil.org/en/>**

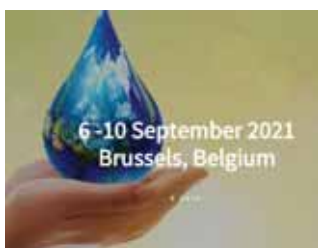
 [www.facebook.com/iah.org](https://www.facebook.com/iah.org)

# 48TH IAH CONGRESS, BELGIUM 2021

## INSPIRING GROUNDWATER

Our Belgian chocolates, beers, waffles, fries and of course our water are already waiting for you in Brussels, Belgium in September and you'll be guided by the Smurfs, our special guests !

Follow our preparations and be informed of all the steps towards a great, safe, public event.



REGISTRATION is open.

Visit our website ([www.iah2021belgium.org](http://www.iah2021belgium.org)), subscribe to our NEWSLETTER.

In a few words : we ARE ready to welcome you on 6th September.

Submit the ABSTRACT for your POSTER on the website! Topics are:

Groundwater/surface water interaction

Groundwater contamination

Groundwater and climate change

Geothermal and hydro-energy

Karst and fractured rock hydrogeology

Managed aquifer recharge

Mineral and thermal waters

Regional groundwater systems and transboundary aquifers

Coastal aquifers

Groundwater and ecosystems

Urban groundwater and resilience – resource management approaches and impacts

Hydrogeochemistry, groundwater age, paleogroundwater and isotopes in hydrogeology

Advances in forward and inverse groundwater modeling and open source tools for computational subsurface hydrology (uncertainty)

Advances in experimental and field methods in hydrogeology and for understanding of the critical zone (experimental design)

Groundwater governance, policy and management (drought)

Sustainable groundwater exploitation and well management

Brussels, September 6th. We'll be there. Will you?



Belgium Congress website - <https://iah2021belgium.org/>

AUGUST 2021





[www.vanwalt.com](http://www.vanwalt.com)

## Introducing the LevelSCOUT 2X Level Logger



### HEART OF YOUR MONITORING

- Accurate, reliable and lasts a lifetime
- Backed up with a market leading 3-year warranty
- Easy to use, best-in-class improved and upgraded software
- Software checks you are using the latest version every time you connect to the internet
- Improved logger design with double 'O' rings for more resilience
- An environmental monitoring logger that is truly environmentally sustainable
- Expanded non-volatile memory storing 100,000 datasets
- Up-rated, fully replaceable battery for extended life in the field
- Heavier than comparable water level instruments for quick & easy down-well deployment.



+44 (0) 1428 661 660  
[sales@vanwalt.com](mailto:sales@vanwalt.com)



+44 (0) 2891 312 350  
[irelandsales@vanwalt.com](mailto:irelandsales@vanwalt.com)



+ 34 93 590 00 07  
[ventas@vanwalt.com](mailto:ventas@vanwalt.com)



+27 82 754 9941  
[jani@vanwalt.com](mailto:jani@vanwalt.com)



+64 (0) 3443 5326  
[salesnz@vanwalt.com](mailto:salesnz@vanwalt.com)

## Saúde - Sante

The Covid pandemic continues to cause distress across our regions and there is ongoing disruption to our programmes. Nonetheless, the organising committees of our Brazilian and Belgian congresses have made great progress in their preparations and as we write this we are set to connect with Sao Paulo in the virtual world and be together with colleagues in Brussels.

Many of you have provided your views on the big challenges for groundwater in our recent survey. Your inputs are now being analysed and will be brought together in our Groundwater Declaration, to focus on many of the issues that our two congresses will be highlighting. A further innovation, to draw attention to groundwater, is our version of passing of the Olympic torch. In our case we will be passing on a vial of groundwater from Brazil to Belgium, which we hope will become a tradition for future congresses.

If you're not able to participate in the congresses, you may still want to take part in our annual general meeting. After last year's successful online AGM, this year we intend that it should be possible to attend in person or in the virtual environment.

As a final point in connection with our congresses, we are pleased to announce the publication of further translations of a number of papers in our Strategic Overview Series, in Portuguese, Spanish and French.

Elections for our Vice Presidents for Asia and for Science and Programme are now underway. Voting is open to all paid-up members of IAH. We encourage you to take the opportunity to vote, if you haven't already done so. Voting is open till the last week of August.

Please look out, too, for our survey on 'the future of IAH'. We really want your views on the aims and objectives that should be set out for your Association for the next 10 years.

And finally, we are now making ready to say goodbye to our Books Editor, Nick Robins, who has decided to move on after 15 years in post. You can see the suggestions that Nick, and former Secretary General Bruce Misstear, have proposed that might be considered for the future of our books publishing.

*Ian, Kellie, Sue, Sharon*

**IAH SECRETARIAT**

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## ADVERTISING & COPY INFORMATION

IAH News and Information is published 3 times a year. It is distributed as an insert in Hydrogeology Journal and is also published via IAH's website and email alerts. It reaches all members and supporters of the International Association of Hydrogeologists – around 8000 people – and can also be freely downloaded by individuals worldwide for personal/not for profit use.

We accept commercial advertisements. Advertising rates are €300 per full-page advert and €200 per half page.

These rates apply for one issue. If you take an advert in two successive issues then the third is offered free of charge.

Corporate members, supporters and sponsors are offered special rates. Contact us for more details.

We are also happy to consider groundwater related articles from our members and supporters.

Copy dates are 1 March, 1 June and 1 October.

Email [knicholson@iah.org](mailto:knicholson@iah.org) for further details.

**AUGUST 2021**

## Dear members, dear colleagues...



I hope this note finds everyone in good health, being productive and in good spirits. It is a special time for the International Association of Hydrogeologists. We have interim elections for two council positions and two rapidly approaching Congresses. With two IAH Congresses this year, the Brazilians and the Belgians are teaming up on a joint Sao Paulo – Brussels Groundwater Declaration that will have signatories from all over the world. Signatories will include dignitaries, environmental organizations, and will be open to endorsement from any individual groundwater professional. Congress organizers in China for 2022, South Africa for 2023, and Switzerland for 2024 are putting together plans for other great, upcoming Congresses.

It is remarkable that so many people in IAH are contributing to groundwater education and awareness around the globe in so many varied ways. The examples are numerous. It would be impossible to list all the activities of our National Chapters, Commissions, Networks and Working Groups, but the following selected activities will give you a small glimpse into some IAH undertakings and accomplishments. The IAH European Regional Vice President (and interim Vice President for Science and Program), Marco Petitta, has organized an ongoing series of webinars with countries in Europe, and the Vice President for Africa, Seifu Kebede Gurmessa, recently organized a webinar training on water security for countries in Africa in collaboration with UNESCO. Seifu is also currently contributing to the 2nd IGAD Water Forum to be held in Entebbe, Uganda 5-7 October 2021. Peter Dillon and Enrique Fernandez Escalante from the IAH MAR Commission and co-editors recently published a special issue in Water MDPI on “Managed Aquifer Recharge for Water Resilience”, and a book was just published on “Advances in Geoethics and Groundwater Management” that is the result of an IAH sponsored conference held in May 2020 in Porto, Portugal. Joanna Doummar, our Vice President for the Middle East and North Africa recent gave a talk for the “Water Underground Series” and is coordinating webinars and meetings in the MENA region. Others from the IAH family are also supporting the Water Underground Series - view at <https://www.youtube.com/channel/UC9d8ENWaEklzZCieKfvVSJA>. Dan Lapworth and the Groundwater Quality Commission is putting together a theme issue for the journal Science of the Total Environment, and Alan MacDonald and the Burdon Network for International Development continue to plan hydrophilanthropic events and initiatives. Viviana Re and the Socio-hydrogeology Network are planning sessions on “Gender and Groundwater” at upcoming Congresses. The Early Career Hydrogeologist Network (ECHN) from Spain undertook an online “Hydrocafe” webinar series highlighting ECH researchers around the world - watch at <https://www.youtube.com/channel/UCt8IUublUze37tjpakYTDfw>.

Clifford Voss edits our own ‘Hydrogeology Journal’ with great supporting Associate Editors, and Jim LaMoreaux is editor of what we like to consider a ‘sister journal’ to HJ, Sustainable Water Resources Management’ (for which IAH members are entitled to a discount from publisher Springer). Craig Simmons and Okke Batelaan from Australia are planning innovative additions for the IAH Time Capsule project, which creates videos and interviews of famous and upcoming hydrogeologists worldwide - see <https://timecapsule.iah.org/>.



World Water Day in March 2022 will have groundwater as its theme for the very first time. IAH is working closely with the United Nations to make the importance of groundwater more visible and has planned several activities associated with its recognition throughout 2022.

All told, IAH continues to be one of the most active associations in the world. For over 65 years, dedicated staff members and thousands of volunteers have improved global conditions through education, research, and philanthropic efforts. I would like to express my deepest gratitude for everyone in IAH who help make the world a better place. Thanks.

DAVE KREAMER

## 2021 IAH ANNUAL GENERAL MEETING

Notice is given that the 2021 Annual General Meeting of the International Association of Hydrogeologists will be held at The Square, Mont des Arts, 1000 Bruxelles, Belgium and online at 1700 BST on 7th September 2021 (during the 48th IAH congress).

All members of the Association who have fully paid their subscriptions for the current year are entitled to attend the proceedings.

- The AGM agenda will include receiving the report and accounts for the period ended 31st December 2020. The full financial statement will be made available on the annual reports pages of the IAH web site <https://iah.org/about/reports/management> just ahead of the meeting.
- Minutes of the 20th Annual General Meeting held on 23rd September 2020 are available at: <https://iah.org/members/iah-meetings>.

If you are not able to be present in person at the AGM but would like to attend online please register your interest here: [https://www.surveymonkey.co.uk/r/IAH2021AGM\\_v](https://www.surveymonkey.co.uk/r/IAH2021AGM_v)

We will then send you the joining details, including a password, nearer the date. We would be grateful if you could register interest by the end of August 2021, so that we can be certain to arrange for enough online capacity for everyone who like to join the meeting.

**IAH SECRETARIAT**





# MEDIA FOCUS

A selection of groundwater related features from around the world

## IRAN IS DRAINING ITS AQUIFERS DRY

Iran is using more groundwater than can be naturally recharged, according to an analysis of national data. And even as more wells are tapped into the ground each year, their overall output keeps dropping. Groundwater amounts to 60% of the country's total supply and is consumed almost entirely by agriculture.

<https://www.nature.com/articles/d41586-021-01604-9>

## TEXAS MUST ADDRESS GROUNDWATER FUTURE, SAYS EXPERT

Texas groundwater common law is fundamentally based on principles developed in ancient Rome. Long-term water security is essential for the future of Texas, and the state acutely needs a common law system that can balance world-scale agricultural activity, industrial development and urban growth while also protecting private property rights.

<https://phys.org/news/2021-06-texas-groundwater-future-expert.html>

## STUDY ANALYZES THE RISK OF KARST GROUNDWATER CONTAMINATION TO HUMAN CONSUMPTION

Researchers analyzed the presence of several pollutants in water from many karst aquifers of Europe, North Africa, and the Middle East, relating fast infiltration processes to an increased concentration of these substances. During rainfall events when aquifers recharge the concentration of pollutants and pathogenic microorganisms can significantly exceed the safe levels.

[https://www.eurekalert.org/pub\\_releases/2021-06/uom-asa060921.php](https://www.eurekalert.org/pub_releases/2021-06/uom-asa060921.php)

## GROUNDWATER MONITORING WITH SEISMIC INSTRUMENTS

Researchers at the German Research Centre for Geosciences (GFZ), together with colleagues from Nepal, have demonstrated an elegant method to track groundwater dynamics in high mountains using seismic waves.

<https://www.waterworld.com/environmental/press-release/14204061/groundwater-monitoring-with-seismic-instruments>

## WHY PERU IS REVIVING A PRE-INCAN TECHNOLOGY FOR WATER

Peru is turning to ancient indigenous techniques, natural ecosystems – and groundwater, to keep its taps running, as climate change threatens to dry out its water supply. Rainfall is diverted to natural infiltration basins. “If we plant the water, we can harvest the water. But if we don't plant the water, then we will have problems”.

<https://www.bbc.com/future/article/20210510-perus-urgent-search-for-slow-water>

## THE BUILDING OF GROUNDWATER WELLS IN VENEZUELA

Amidst the current problematic economic situation and levels of poverty in Venezuela, urban and rural sectors are going deep to find water due to poor access to safe water. Geographical studies or dowsing are the most common methods of creating local groundwater wells in Venezuela.

<https://borgenproject.org/groundwater-wells-in-venezuela/>





### HOW YEMEN'S SOLAR POWER REVOLUTION COULD DRAIN THE WHOLE COUNTRY OF WATER

During the war, Yemenis have turned to solar power for homes and hospitals as well as water pumps. But new research says that too much water is being pumped and the whole country is at risk. Satellite remote sensing shows that groundwater in western Yemen has been at its lowest level since satellite records started in 2002. The increased availability of solar power may be playing a big part in these worryingly low levels.

<https://www.dw.com/en/how-yemens-solar-power-revolution-could-drain-the-whole-country-of-water/a-57364390>

### ASSESSMENT OF GLOBAL GROUNDWATER WELLS FINDS MANY ARE AT RISK OF DRYING UP

An assessment of construction records and water levels for tens of millions of groundwater wells across 40 countries has shown that up to one in five of the wells used is at risk of running dry. The researchers also examined records from more than 1 million monitoring wells and data from NASA's GRACE mission, to allow them to explore changes in water storage around the globe.

[https://www.eurekalert.org/pub\\_releases/2021-04/aaft-gww041921.php](https://www.eurekalert.org/pub_releases/2021-04/aaft-gww041921.php)

### FRESHENED GROUNDWATER IN THE SUB-SEAFLOOR

Offshore freshened groundwater (OFG) is water hosted in sediments and rocks below the seafloor. It can be found offshore of most continents around the world and could possibly become a source of potable water for human populations living near the coast. Scientists are using a variety of geochemical, geophysical, and numerical methods to study offshore freshened groundwater and better understand its role in the global water cycle.

<https://eos.org/editors-vox/freshened-groundwater-in-the-sub-seafloor>

### YELLOWSTONE'S MOST FAMOUS GEYSER COULD SHUT DOWN, WITH HUGE RAMIFICATIONS

Old Faithful, Yellowstone National Park's most famous geyser, is a sight to behold, shooting tens of thousands of litres of boiling water hundreds of feet into the air almost every hour. But a new climate assessment and a recent study have shown that rising temperatures, reduced snowfall and increased rain threaten to shut Old Faithful off completely by the end of the century.

<https://www.theguardian.com/environment/2021/jul/02/yellowstone-geyser-old-faithful-stop-erupting-ramifications>



## IAH EXECUTIVE MEETS ONLINE

At recent online meetings of both the Executive Committee and Council, Marco Petitta, Vice President for Western Europe kindly agreed to take on the role of acting VP for Science and Programme. Similarly, past President Antonio Chambel attended as acting VP for Asia.

Executive and Council members have been actively involved in a number of international initiatives. These include:

- Arrangements for World Water Day 2022 on 'Making the invisible visible' are evolving, with preparation of the associated World Water Development Report on Groundwater also taking place. (Drafting of one chapter being led by Abhijit Mukherjee and Dan Lapworth).
- There has been input to the scoping of UN-Water's Capacity Development Initiative. This aims to help countries identify their water and sanitation capacity gaps and work with national governments to enhance their capacity for achieving Sustainable Development Goal 6.
- IAH was invited to be a signatory to the UN's joint statement on water, following the UN High-Level Meeting on the "Implementation of the Water-related Goals and Targets of the 2030 Agenda. This supports the midterm review of the implementation of the 'International Decade for Action, Water for Sustainable Development, 2018–2028'. A brief video was also prepared for UN Water with support from ECHN.
- President Dave Kreamer was invited to attend the 24th session of the Intergovernmental Council (IGC) of the Intergovernmental Hydrological Programme. This was convened to endorse the Strategic Plan of the Ninth Phase of the IHP (2022-2029) and the revised Statutes and Rules of Procedure.
- Regional initiatives supported by Council include the Intergovernmental Authority on Development water forum 'Dealing with water scarcity - the role of groundwater'. IGAD includes governments from the Horn of Africa, Nile Valley and the African Great Lakes. Input has just started on the IMPEL (European Union Network for the Implementation and Enforcement of Environmental Law) project on 'Tackling Illegal Groundwater Drilling and Abstraction'.

There was discussion about how the Asia Fund could be used to support existing chapters and promote the establishment of new chapters in Asia Region and to support local initiatives. The Burdon Fund has been used widely for supporting similar activities in Africa.

Education is an important theme that has received attention over the years. With a large amount of educational material available from various sources the challenge for IAH is to provide leadership and identify gaps. During the past year there has been considerable IAH online activity on educational matters, for example, the series of webinars promoted by Western Europe Region. IAH should also seek suitable partnerships and that where this happens the IAH brand should be highlighted. Diversity in topics, presenters, geography, language are critical considerations and there should be links with SDG targets. To make further progress it was felt that a 'champion' should be identified to focus on this, for example as an adviser to Council.



Progress was reported on the Brazilian and Belgian congresses, despite the ongoing difficulties. Updates for the China congress in 2022 and South Africa in 2023 were also discussed - and a reminder that Switzerland has been confirmed as location for 2024. Expressions of interest were also being received for 2025.

Proposals for a symbolic exchange of water between successive congresses, similar to the handing on of the Olympic torch, are also taking shape. This will also be linked to World Water Day in 2022 and to an associated groundwater conference in Paris at this time.

IAN DAVEY, SECRETARIAT

## A GROUNDWATER FUTURE IN PROSPECT?

IAH is looking ahead to the next 10 years. How are we doing? What services and opportunities should we be providing? Our survey on the future of IAH is now available for members online at the link below. We want IAH to be even more successful and for this we need know how you would like your association to develop during the next decade.

How can we make membership more appealing to you and to others who might potentially become members? Perhaps there are specific member benefits that you think that IAH should be providing. If so do you have suggestions on how we can increase our funding, while keeping membership fees proportionate, so that we can provide the benefits that members deserve.

Like many scientific and technical organisations, IAH has difficulties in attracting and retaining women as members. How can IAH achieve greater gender balance and diversity within its governance structure and committees, on a national and international level, including the IAH Executive and Council?

Perhaps you consider that one of the issues is to raise the awareness of groundwater's importance to 'decision-makers' and wider audiences. If so you may also have ideas on which people and organisations we should be targeting, how different IAH members and officers can be involved in this, and how much resource can be used in engagement and influencing.

Improving educational opportunities is a perennial issue. There are many educational materials available, both from IAH groups and other organisations. Should IAH set aside resources so that it can take a leading role for its members and if so how can key champions be identified amongst our members. Should we be providing more online opportunities, including for participation in our conferences and congresses.

Please take the time to complete the survey and give us your views. We also intend to convene focus groups on particular issues and we look forward to your participation in these. With your help the ambitions we set out in the next IAH strategic plan will ensure that IAH continues to develop, for the benefit of members now and in the future, and to help ensure that sustainable groundwater management benefits the wider world.

SECRETARIAT



Survey: [https://www.surveymonkey.co.uk/r/IAH\\_progress21](https://www.surveymonkey.co.uk/r/IAH_progress21)

Questions or comments? Email [info@iah.org](mailto:info@iah.org)



# NICK ROBINS, EDITOR-IN-CHIEF, BOOKS, STEPS DOWN

After nearly 15 years as Editor-in-Chief for our books series, Nick Robins has decided to sign-off from his editing duties. Under Nick's careful stewardship we have seen our catalogue of books increase and, as well as helping to promote scientific excellence, the royalties from the series also provide a regular addition to IAH's funds. Our 'blue books', or 'International Contributions to Hydrogeology', include monographs on sub-disciplines of hydrogeology as well as outlets for major international investigatory programmes and collections of papers within a broad theme of international interest. Our 'green books', or 'Selected Papers', are collections of papers from Congress and other meetings usually sponsored by IAH. Nick currently has one last book in his care that he expects to be published in the not too distant future.



Many of you of course will know Nick from his long service with the British Geological Survey and with his work in Africa prior to this. The majority of his career was spent with the Survey, both in the UK, working largely on hard rock hydrogeology, including the UK high level radioactive waste disposal programme, and in Africa, the Middle East, Central America and the Caribbean. In more recent years he divided his time between the hydrology of European coastal dune wetlands and the crystalline basement rock aquifers of sub-Saharan Africa, working in association with SADC and the Government of Malawi.

You may know less of Nick's work as an authority on ships and maritime history. Having spent his groundwater career in considering both technical and socio-political issues, he has also applied these skills to considering the social and political picture of shipping. His 25 books describe the evolution of a variety of nautical themes, ranging from tugs and tenders to excursion steamers and cruise ships.

I'm sure you will want to join all in the IAH Council, Executive and the Secretariat in wishing him 'all the best' in his future endeavours. This may include further additions to his own catalogue of publications, both those on groundwater and on maritime matters. It will undoubtedly include being the patron of a growing dynasty, though whether Nick's grandchildren take up one of his interests remains to be seen (music seems to be a favourite activity, which was another of Nick's pursuits, though from long ago...).

From a personal point of view, Nick was a major influence in my teenage years on my decision to study and pursue applied geology as a career, a decision I've never regretted. Thanks Nick!

### [A crossroad for IAH books](#)

Nick feels that it is now time for important decisions to be taken about the future of IAH's books and, with former Secretary General Bruce Misstear, he has considered possible options. In fact, IAH already took the difficult decision to cease publication of its green book series in 2017 and further changes are needed if publishing books is to remain viable. Although Nick is stepping aside, he is looking forward to helping in setting out a new approach and hopefully in finding a new champion to take forward this important project.



Members are being asked in a survey on our long-term planning about how IAH should continue to develop in the coming years. A critical question concerns what kind of books and publications members think we should be producing. Should we continue with publishing an occasional title; or possibly we should cease producing printed books and develop online ebooks instead. Should we place more emphasis on researching IAH readers' interests and develop a new book series based on this; or possibly create a new series of mini-books on popular and topical issues, to reach wider audiences. Working in partnership with other organisations could also be an option. Or, with publications widely available from other sources, perhaps it's time for IAH to move away from publishing books and to concentrate on its other core concerns. Please let us know how what you think your IAH should be doing in the future - [https://www.surveymonkey.co.uk/r/IAH\\_progress21](https://www.surveymonkey.co.uk/r/IAH_progress21)

IAN DAVEY



<https://iah.org/iah-book-series>

## HYDROGEOLOGY JOURNAL

The Impact Factor 2020 for the journal has just been released and it is 3.178 (2019 = 2.641), again the highest for the journal ever. Congratulations to all the HJ team, including our associate editors and reviewers in helping to make this happen!

The annual impact factor is a ratio between citations and recent citable items published (calculated by dividing the number of current year citations to the source items published in that journal during the previous two years). The diagram below also shows information on the ranking in relation to particular SCIE categories. The Science Citation Index Expanded (SCIE) is a bibliographic database. Publishing a paper in an SCIE-indexed journal is often considered one of the primary criteria for academic success.



# ELECTIONS FOR COUNCIL VACANCIES



Following the sad passing of Ralf Klingbeil and Devinder Kumar Chadha, we now have elections to fill their vacant posts on IAH Council. Voting is now open and all IAH members who have paid their subscriptions are entitled to vote.

IAH is run by a Council of 13 members who are directors of IAH, a charitable company registered in the UK. Council is elected every four years and the successful candidates will join the members who were elected in September 2021. You can find the details of other members of Council at <https://iah.org/about/council>.

IAH's Council members make important contributions to IAH and the international groundwater community. Council members have a vital role in developing IAH's policies and plans, and in overseeing their implementation on behalf of all our members.

As Trustees of the Association, Council members have considerable responsibilities and must act with a duty of care. Those standing for election have signed a statement confirming they accept the duty and conduct required. As we come to the balloting stage we ask that you consider the responsibilities that the Council members must accept when reviewing the candidates and casting your votes.

The Vice President, Programme and Science Coordination has responsibilities for commissions, networks and the promotion of science, internally and externally. The candidates are:

- Shafick Adams
- BS Chaudhary
- Marco Petitta

The Regional Vice Presidents provide stewardship of IAH interests and coordination of national chapters in a particular region. The candidates for VP Asia are:

- Dr Yongje Kim
- Dr Dinesh Chandra Singhal
- Dr Amarendra Kumar Sinha
- Dr Han Zaisheng

You can find biographies and personal statements of all of the candidates at <https://iah.org/wp-content/uploads/2021/07/IAHelectioninfo21.pdf>. We strongly encourage you to read the information about the candidates before you make your vote.

## The voting process

The Association has contracted Mi-Voice, a reputable and well-established UK-based company, to help the IAH Secretariat to conduct the voting process. The Secretariat has provided Mi-Voice with details of the current membership, in secure formats, and will provide regular updates so that those who renew or join during the voting period will be able to vote. All members with current email addresses will receive instructions for on-line electronic voting, including access to the candidates' biographies and personal statements. Members without email addresses will receive printed manual ballot papers, a brochure with the information about each candidate and instructions for returning their voting papers.

Voting commenced in early July and will close on Wednesday 25th August 2021 at 12.00 noon BST. The results will be declared at the Brazil congress at the end of August. All IAH members may vote for all the posts; this means that you are not restricted to voting only for the vice president of the region in which you live.

Voting online is a simple process. To cast your votes, you just click the button indicated on the website, which will automatically authenticate you with the voting site. There is additional information and also a Mi-Voice contact address on the website in case you need help with the voting process.

Members are strongly encouraged to use this opportunity to exercise their democratic right to vote for these Council members, who will serve the Association until 2024.

If you have any queries about the Council Election then please contact me, Ian Davey, Returning Officer for the Election: [idavey@iah.org](mailto:idavey@iah.org) or write to the IAH Secretariat, PO Box 4130, Goring, Reading, RG8 6BJ, UK.

Please vote now to help make a difference.

**IAN DAVEY, RETURNING OFFICER**

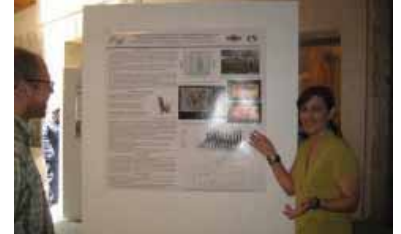


IAH Council meeting, Autumn 2020. In memory of Ralf Klingbeil and Devinder Kumar Chadha.

# Pregunte a un miembro.....

Una función para que los miembros de la AIH compartan pensamientos, experiencias y sugerencias...

Agradecemos a Carmen Julia Navarro, por sus reflexiones. Carmen es Jefa del Departamento de Sectorización Hidráulica de la Junta Municipal de Agua y Saneamiento de Chihuahua y actual Presidenta del Capítulo Nacional de la AIH en México.



## Cuéntanos acerca de ti...

Soy Ingeniero Civil, tengo una Maestría en Ingeniería de Recursos Hidráulicos de la Universidad Autónoma de Chihuahua y un Doctorado en Ciencias de los Materiales del Centro de Investigación de Materiales Avanzados.

Cuando comencé mi carrera de ingeniería, solo había una o dos mujeres por generación en la facultad. En aquellos días, era un desafío para una mujer estudiar ingeniería, sobre todo porque las instalaciones, como los baños, no eran adecuadas. En mi escuela había dos baños para mujeres, uno donde iban las administrativas, el cual tenía puerta y que estaba muy lejos de los salones de clases, que para usarlo había que atravesar todo los pasillos de la escuela y que suscitaban comentarios no solicitados y "cumplidos" no deseados, que hoy se consideraría alarmantemente sexista; el baño para mujeres estudiantes estaba cerca de las canchas de básquet ball y que no tenía puerta, vandalizado por lo cual implicaba tener la colaboración con compañeros de confianza, organizar gestiones para que las mujeres estuvieran bien acompañadas y que alguien 'cuidara la entrada de la puerta para que los hombres no entraran mientras tú estabas allí'. Algunas compañeras claudicaban de sus estudios por ese entorno tan adverso; a otras nos enseñó a no rendirse y prepararnos para el ambiente laboral.

Para mi sorpresa y para los demás al concluir la carrera; (porque mi intención nunca fue sacarme la mejores notas, pues ya tenía compromisos de trabajo a la par del estudio y tenía dos bebes); me avisaron que yo obtuve el primer lugar en mi cohorte de ingeniería civil. Como era habitual para esa distinción, me

pidieron que diera un discurso de agradecimiento y reflexión. Recuerdo que me pidieron que cediera ese derecho, porque no era "normal" ver a una mujer en el podio. Le respondí que ya había recibido un sabio consejo (Mi papa) de no debe permitir que nadie me falte el respeto o me quite mi valor.

Reflexiono sobre esos tiempos, lidiando con el comportamiento desafiante de algunos y la dificultad de conseguir que mi trabajo sea valorado por otros, y sobre lo que tuve que hacer para encontrar mi propio lugar. Estas experiencias significaron mi entrenamiento y mi convencimiento que la carrera no tiene género: desarrollándome por convicción, perseverancia, y luchando contra el miedo al fracaso o al señalamiento de no ser "normal".

Aprendí que el valor de ser ingeniero en realidad no es el título, sino lo que se deriva de la convicción de ser, ese alguien que quiere ser, no simplemente quién "debería" o se le permite ser - estar. Ni que la ingeniera tenga que encajar volviéndose más masculina o ceder a los estereotipos de género para conseguir





*“... ser un factor de cambio en las comunidades, recordando que, si bien es muy común criticar y limitar lo que se podría proponer, como diferentes formas de hacer las cosas, al final son los resultados los que justifican la razón de cualquier cambio.””*

un lugar en el ambiente profesional.

Más bien debe utilizar las herramientas de la ingeniería, aprender y entender el conocimiento, razonarlo para su aplicación y no quedarse callada, pues si sabes, hay creérselo, decirlo y aplicarlo pero sobre todo comunicarlo para permitir un análisis reflexivo y buscar la solución a cualquier problema que se aborde.

A lo largo de los años he trabajado profesionalmente en: aplicado ingeniería en los tres diferentes niveles de gobierno en México, (Nacional Comisión de Agua, Junta Central de Agua y Saneamiento del Gobierno del Estado y Junta Municipal de Agua y Saneamiento)

Así como en la academia desde el bachillerato hasta nivel de doctorado; en la iniciativa privada en materia de asuntos civiles y obras hidráulicas y consultoría para empresas de servicios públicos.

He participado en proyectos con diferentes instituciones reconocidas a nivel nacional, en algunos casos siendo la supervisora proyecto o líder o gerente técnico, entre las que puedo mencionar (IMTA, UNAM, ITESM, CIMAV, OCDE), he dirigido tesis a nivel de pregrado y doctorado; todas estas investigaciones en proyectos relacionados con el desarrollo sostenible del suministro de agua a la comunidad. He contribuido a publicaciones, libros, artículos de divulgación y revistas técnico-científicas. He participado como ponente en congresos nacionales e internacionales sobre temas relacionados con la gestión e ingeniería del agua. Como instructor de la Escuela del Agua (ANEAS/CONAGUA), he impartido numerosos cursos de formación para empresas y organizaciones en relación al ciclo hidráulico urbano, desde la extracción hasta la reutilización del agua. Soy miembro activo de varias asociaciones.

[¿Por qué se unió a AIH?](#)

Cuando cursaba mi maestría en 1996 mi maestro y

mentor, el Dr. Adolfo Chávez, nos inculcó la búsqueda de la evolución del conocimiento. Él fue miembro de AIH y nos prestó sus publicaciones. Luego, en el lugar de trabajo, cuando quería intentar implementar cualquier cambio en los métodos, no tenía ninguna base de datos o formas sistemáticas de análisis, excepto subjetiva y conceptualmente. Intenté convertirme en miembro, pero todavía era muy complicado porque no existía la facilidad de Internet. Así continuaron las cosas, con el sistema de préstamo de las revistas a través de mi tutor académico. Fue una época en la que la tecnología de análisis fue impulsada por modelos matemáticos comerciales.

Nos dimos cuenta de que, aunque creíamos que teníamos mucha información, la cantidad y calidad de los datos era insuficiente para la toma de decisiones. Fue hasta que las vinculaciones se pudieron gestionar fácilmente a través de Internet, es que me convertí en miembro de la AIH.

[¿Cuáles diría que han sido los éxitos y los aspectos más destacados de su carrera?](#)

La formación de recursos humanos con una visión diferente, para las mujeres y para los jóvenes en general. Estímulo para que no se limiten a apearse a lo que les dice o les enseña en clase o en lo profesional, su tutor académico o jefe, sino que también sean proactivos en su propio desarrollo y en el desarrollo de capacidades. También que sean un factor de cambio en las comunidades, recordando que, si bien es muy común criticar y limitar lo que se podría proponer como diferentes formas de hacer las cosas, al final son los resultados los que justifican la razón de cualquier cambio.

Lo he aplicado en la academia y en todas las instituciones en las que he trabajado. Nos ha dado mucha satisfacción, generar metodologías que modelan y se aplican en atender problemas y que dan soluciones en situaciones de la vida real.

## [Pregunte a un miembro...]

### ¿Alguna experiencia profesional de la que haya aprendido y que esté dispuesto a compartir con los demás?

Sí, a veces nosotros u otros realizamos una actividad con la que estamos familiarizados y que aprendimos que “era la mejor”. Pero todos entendemos que el conocimiento no es estático. Aun utilizamos las fórmulas de hace n años, y que todavía aplican y explican el comportamiento teórico de muchos aspectos. Pero en la mayoría de las veces en la toma de decisiones, debemos aplicar el modelo inverso, porque partimos de lo que existe y de ahí darle la explicación, no se puede ajustar la realidad para converger a un modelo teórico. Pues el modelo teórico tiene finitas variables o factores y en la realidad pueden existir más factores que hacen más complejo vislumbrar su similitud y encajarlo en un comportamiento teórico para abordar el problema.

En su mayoría, los artículos científico-técnicos son solo pequeñas muestras de un comportamiento. Cuando los tomadores de decisiones, o incluso la élite que tiene conocimientos e intereses de investigación, intentan aplicar la ciencia, se descubren los eslabones perdidos. Este puede ser especialmente el caso en los países en desarrollo.

### ¿Cuáles han sido los mayores cambios que ha visto a lo largo de su carrera?

Que cada vez más los usuarios aceptan a quienes brindan conocimiento sin cuestionarlos, particularmente si está claro que tienen experiencia práctica de aplicación, no solo teoría o conocimiento académico.

### ¿Cuáles son sus preocupaciones ahora o para el futuro, en relación con las aguas subterráneas / agua / hidrogeología?

Que queda mucho por hacer. Podemos distinguir tres grupos, el primero aquellos (usuarios) que son capaces o que están obligados a generar y gestionar datos, deben de tener el apoyo para hacer bases de datos fiables, que ayuden a mejorar el uso sostenible de las aguas subterráneas, pero están más preocupados y ocupados por los problemas cotidianos [y, por tanto, por resolverlos]. Los segundos aquellos (investigadores y académicos) que analizan y proponen para el futuro a corto o

medio plazo, pero que no están transfiriendo conocimiento a los usuarios. Y el tercer grupo la sociedad y gobierno, que no tienen elementos de juicio, de los dos grupos anteriores y que solo “proponen” y exponen fundamentos de los “deberías”. Por lo tanto no hay enlaces ni articulaciones, porque todo esto cuesta tiempo y dinero. Hasta que no haya la financiación adecuada y un procedimiento donde se articulen los tres grupos, lo que seguirá importando más a los investigadores es que escribir artículos que pueden dar una buena propuesta hacia donde enfocar esfuerzos para la financiación futura, pero que los usuarios que enfrentan el problema y “lo resuelven” ni siquiera ven. Eso me preocupa, que en este mundo polarizado, hay quienes saben y quienes hacen. Cada vez más, los problemas que vemos ahora crecerán y serán cada vez más complejos de comprender, lo que dificultará las soluciones.

### Qué tres consejos le podría dar a alguien que recién comienza su carrera?

1. Busque siempre desarrollar un mayor conocimiento.
2. Siéntase seguro de lo que sabe y aplíquelo.
3. Comparta lo que sabe, ya que esto mejora su propia comprensión a medida que aprende de los demás, incluidos aquellos que no tienen un título o una formación académica formal.

### Como empleador, ¿qué habilidades o “algo especial” podría estar buscando?

Alguien que esté abierto a aprender y desarrollar habilidades,



pero sobre todo que busque compartirlo. Buenas habilidades tecnológicas. Buscando soluciones desde cualquier parte del mundo que puedan ofrecerlas.

### ¿Tus planes futuros? Aspiraciones?

Mi esperanza es que algún día, al mirar un perfil técnico, sea independiente del género. Tomo la vida como viene; tiene un sentido pero no una dirección u objetivo en particular.

### ¿Qué le ha aportado ser miembro de AIH?

Mayor conocimiento, capacidad analítica y amigos de otros países.

### ¿Hay algo que IAH debería estar haciendo? ¿Podría hacerlo mejor?

Si pudiera, proporcionar un espacio no tan “elitista” para aquellos que no necesitan entender todo el proceso matemático, sino más bien entender por qué aplicar la metodología y de qué manera puede beneficiarse. Considero que a menos que el conocimiento dentro de IAH se transfiera mejor a otros (sobre todo usuarios), no puede haber factores de cambio para la gestión de las aguas subterráneas más localmente, que luego pueden hacer una revolución global.

### Comentarios adicionales: ¿cuestiones que le gustaría plantear?

Debe prestarse especial atención a la gran cantidad de personas que no hablan ni dominan el inglés; hacer publicaciones en español. Considerar a los países con mayor problemática de las aguas subterráneas y sus lenguas maternas para transferir el conocimiento y desarrollar capacidades locales en los usuarios y tomadores de decisión.

### CARMEN JULIA NAVARRO

*[ed: Carmen presenta algunos puntos de vista muy sólidos sobre cuestiones que también se tienen en cuenta en nuestra declaración sobre Equidad (o Igualdad), Diversidad e Inclusión (véase <https://iah.org/about/statement-on-equity-diversity-and-inclusion>). En un reciente seminario web de la EGU (Unión Europea de Geociencias), los ponentes también trataron una serie de asuntos relacionados con la IDE - véase <https://youtu.be/xeBBxogRxjM>. Quizás quiera tenerlos en cuenta cuando envíe su respuesta a la encuesta para nuestro plan estratégico].*



## GROUNDWATER: WHY GENDER MATTERS!

Session at 47th IAH congress in São Paulo, Brazil, August 2021

Chair: Viviana Re (University of Pisa, Italy), Ana Maciel de Carvalho (Federal University of Jequitinhonha and Mucuri Valleys, Brazil), Isabella de Castilho Barbosa (Campinas State University, Brazil), Theresa Frommen (Humboldt-Universität zu Berlin, Germany), Michela Miletto and Paola Piccione (UNESCO World Water Assessment Program -WWAP)

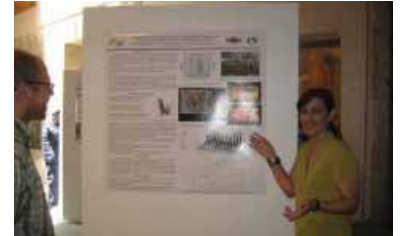
More information: <https://iah2021belgium.org/>

## MEMBER MATTERS

# Ask a Member...

A feature for IAH members to share thoughts, experiences and suggestions...

We are grateful to Carmen Julia Navarro, for her thoughts. Carmen is Head of the Hydraulic Sectorization Department, Municipal Board of Water and Sanitation of Chihuahua and current President of IAH's Mexico National Chapter.



### Tell us about yourself....

I am a Civil Engineer, I have a Master's degree in Water Resources Engineering from the Autonomous University of Chihuahua and a PhD in Materials Science from the Advanced Materials Research Centre.

When I started my engineering career, there were only one or two women per generation on the faculty. In those days, it was a challenge for a woman to study engineering, especially because the facilities, such as the bathrooms, were not adequate. In my school there were two toilets for women, one for administrative staff, which had a door and was far away from the classrooms, and to use it you had to walk all the way through the corridors of the school, which led to unsolicited comments and unwanted "compliments", which today would be considered to be alarmingly sexist; the toilet for female students was near the basketball courts and was without a door owing to vandalism, so its use meant collaborating with trusted colleagues, arranging for women to be well accompanied and for someone to 'guard the door entrance so that men wouldn't enter while you were there'. Some female colleagues gave up their studies because of this adverse environment; others were taught not to give up and to prepare for the work environment.

To my surprise and to the others at the end of my degree (because my intention was never to get the best marks, as I already had work commitments alongside my studies and I had two babies), I was told that I had won first place in my civil engineering cohort. As was customary for that distinction, I was asked to give a speech of thanks and reflection. I remember

being asked to give up that right, because it was not "normal" to see a woman on the podium. I replied that I had already received sage advice (from my father) that I should not allow anyone to disrespect me or take away my courage.

I reflect on those times, dealing with the behaviour of some and the difficulty of getting my work valued by others, and on what I had to do to find my own place. These experiences characterised my training and my conviction that career has no gender: developing myself through conviction, perseverance, and fighting against the fear of failure or being singled out for not being "normal".

I learned that the value of being an engineer is not really the title, but what comes from the conviction to be, that someone wants to be, not simply who they "should" or are allowed to be. Nor that the female engineer has to fit in by becoming more masculine or give in to gender stereotypes to get a place in the professional environment. Rather, you must use the tools of engineering, learn and understand the knowledge, reason





*“...be a factor of change in communities, remembering that, while it is very common to criticise and limit what might be proposed as different ways of doing things, in the end it is the results that justify the reason for any changes.”*

it for its application and not remain silent, because if you know, you have to believe it, say it and apply it, but above all communicate it to allow a thoughtful analysis and seek the solution to any problem that is addressed.

Over the years I have worked professionally in: applied engineering at the three different levels of government in Mexico, (National Water Commission, Central Water and Sanitation Board of the State Government and Municipal Water and Sanitation Board). Also in academia from high school to doctorate level; in private initiative in civil affairs and hydraulic works and consultancy for public utilities companies.

I have participated in projects with different nationally recognized institutions, in some cases being the project supervisor or project leader or technical manager, among which I can mention (IMTA, UNAM, ITESM, CIMAV, OECD), I have supervised theses at undergraduate and doctoral level; all these research projects related to sustainable development of water supply to the community. I have contributed to publications, books, articles and technical-scientific journals. I have participated as a speaker in national and international congresses on topics related to water management and engineering. As an instructor at the Water School (ANEAS/CONAGUA), I have given numerous training courses for companies and organisations on the urban water cycle, from abstraction to water reuse. I am an active member of several associations.

#### Why did you join IAH?

When I was studying my master's degree in 1996 my teacher and mentor, Dr. Adolfo Chavez, instilled in us to seek the evolution of knowledge. He was a member of IAH and lent us its publications. Then in the workplace when I wanted to try to implement any of change in methods, I was without any database or systematic ways to analyse, except subjectively and conceptually. I sought to become

a member but it was very complicated still because there was not the ease of the internet. So things continued, a loan system of the journals via my academic tutor. It was a time when analysis technology was triggered by commercial mathematical models. We realised that, although we believed we had a lot of information, the quantity and quality of data was insufficient for decision-making. When arrangements could be managed easily through the internet I became a member of the IAH.

#### Any career experiences you have learned from, that you are willing to share with others?

Yes, sometimes we or others undertake an activity we are familiar with and learned that “it was the best”. But we all understand that knowledge is not static. Although we use the formulas from n years ago, and they still explain the theoretical behavior of many aspects, most of the time in decision-making, we should apply the inverse model for the reality and how it relates to such theoretical behaviour to address the situations.

Mostly, scientific technical articles are only small samples of a behaviour. When decision makers, or even the elite who have knowledge and research interests, try to apply the science, missing links are discovered. This can be especially the case in developing countries.

#### What have been the biggest changes you've seen over your career?

That increasingly the users accept those who provide knowledge without questioning them, particularly if it is clear they have practical experience of application, not just theory or academic knowledge.

#### What are your concerns now or for the future, relating to groundwater/water/hydrogeology?

That much remains to be done. We can distinguish three groups, the first one those (users) who are able or obliged to generate and manage data, must have the support to

## [Ask a Member...]

make reliable databases, which help to improve the sustainable use of groundwater, but are more concerned and occupied by the daily problems [and, therefore, the need to solve them].

The second group are those (researchers and academics) who analyse and propose for the short to medium term future, but are not transferring knowledge to users. And the third group is society and government, who have no elements of judgement from the two previous groups and who only “propose” and expose the fundamentals of the “shoulds”. So there are no links and no articulations, because all this costs time and money. Until there is adequate funding and a procedure where the three groups are articulated, what will continue to matter more to researchers is that writing papers that may give a good proposal where to focus efforts for future funding, but that the users who face the problem and “solve it” do not even see. That worries me, that in this polarised world, there are those who know and those who do. Increasingly, the problems we see now will grow and become more and more complex to understand, making solutions more difficult.

### What three tips might you give to someone just starting out on their career?

1. Always seek to develop greater knowledge.
2. Feel confident in what you know and apply it.
3. Share what you know, as this enhances your own understanding as you learn from others, including those without a degree or formal academic training.

### As an employer, what skills or “special something” might you be looking for?

Someone who is open to learning and developing skills, but above all seeking to share it. Good technology skills. Looking for solutions from anywhere in the world that might offer them.

### Your future plans? Aspirations?

My hope is that someday, when looking at a technical profile, I will be independent of gender. I take life as it comes; it has meaning but no particular direction or goal.

### What has being a member of IAH brought to you?

Greater knowledge, analytical capabilities and friends from other countries.

### Is there anything IAH should be doing? Could do better?

If it could, provide a not so “elitist” space for those who do not need to understand the whole mathematical process, but rather understand the reasons why in order to apply the methodology and in what ways they can benefit. I consider that unless the knowledge within IAH is better transferred to others (especially users), there cannot be drivers of change for groundwater management more locally, which can then make a global revolution.

### Additional comments – matters you would like to raise?

Special attention should be paid to the large number of people who do not speak or master English; make publications in Spanish. Consider countries with major groundwater problems and their mother tongues to transfer knowledge and develop local capacities of users and decision-makers.

CARMEN JULIA NAVARRO



*[ed: Carmen presents some strongly held views on issues that are also considered in our statement on Equity (or Equality), Diversity and Inclusion (see <https://iah.org/about/statement-on-equity-diversity-and-inclusion>). In a recent EGU (European Geosciences Union) webinar, presenters also covered a range of EDI matters - see <https://youtu.be/xEBBxogRxjM>. You may want to consider these when sending your response to the survey for our strategic plan.]*



# SOS Traducciones / SOS Traduções / SOS Traductions / SOS Translations

La serie de resúmenes estratégicos de la AIH (IAH-SOS) tiene por objeto informar a los profesionales y a los estudiantes de diversos sectores sobre las interacciones clave con los recursos hídricos subterráneos y la ciencia hidrogeológica. También están pensados para ayudar a los miembros y simpatizantes de la AIH en sus esfuerzos de divulgación. A continuación se muestran los últimos títulos que se van a traducir:

- Seguridad alimentaria y aguas subterráneas
- Cambio global y aguas subterráneas
- Los ODM de la ONU para 2030 - Indicadores esenciales para las aguas subterráneas

A série IAH Strategic Overview Series (IAH-SOS) destina-se a informar profissionais e aprendentes de vários sectores sobre as principais interações com os recursos hídricos subterráneos e a ciência hidrogeológica. Destinam-se também a ajudar os membros e apoiantes da IAH nos seus esforços de divulgação. Os títulos mais recentes a serem traduzidos são mostrados abaixo:

- Segurança Alimentar e Águas Subterráneas
- Mudança global e águas subterráneas
- Os UN-SDGs para 2030 - Indicadores Essenciais para as águas subterráneas

La série d'aperçus stratégiques de l'AIH (AIH-SOS) a pour but d'informer les professionnels et les apprenants de divers secteurs sur les interactions clés avec les ressources en eau souterraine et la science hydrogéologique. Elles sont également destinées à aider les membres et les sympathisants de l'AIH dans leurs efforts de sensibilisation. Les derniers titres à traduire sont indiqués ci-dessous :

- Sécurité alimentaire et eaux souterraines
- Changement global et eaux souterraines
- Les OMD de l'ONU pour 2030 - Indicateurs essentiels pour les eaux souterraines

IAH's Strategic Overview Series (IAH-SOS) aims to inform professionals and learners in a variety of sectors of key interactions with groundwater resources and hydrogeological science. They are also intended to aid IAH members and supporters in their outreach efforts. To coincide with our Brazilian and Belgian Congresses, the following titles have now been published in Spanish, Portuguese and French:

- Food Security and Groundwater
- Global Change and Groundwater
- The UN-SDGs for 2030 – Essential Indicators for Groundwater



 <https://iah.org/education/professionals/strategic-overview-series>

# Free Congress Registrations

We now have free registrations for members for our congress in Belgium. One registration via a prize draw for all members and also a call for applications for registration, to be paid from IAH's 'Solidarity Fund'.

## [Belgium congress prize draw](#)

We have 1 registration for an open draw to all members for the Brussels Congress in September. To enter to win, complete your details including membership number here:

[https://www.surveymonkey.co.uk/r/Belgium\\_Draw](https://www.surveymonkey.co.uk/r/Belgium_Draw)

Terms and conditions: Prize draw closes 11.00pm BST on Saturday 14th August 2021. Entry is open to current IAH members only (2021 dues paid). One entry per individual (additional entries will be discarded). Winner will be picked by random draw and will be contacted by email soon after the closing date. Winner will also be announced in the December 2021 edition of "News and Information".

## [Application for IAH funding: Belgium congress registration](#)

IAH is able to provide 3 registrations to existing IAH members who may otherwise have difficulty in securing funding to participate in the Belgium Congress. Traditionally such support has been for those from lower income countries and for 2021 we would also like to extend this opportunity to younger members on lower incomes who would otherwise be unable to attend. To apply, use the following link where you will be asked to respond to a few questions and provide a short personal statement:

[https://www.surveymonkey.co.uk/r/Belgium\\_solidarity](https://www.surveymonkey.co.uk/r/Belgium_solidarity)

A panel including members of the Organising Committee will assess the applications. They may set other criteria and will contact you in this case.

Terms and conditions: Applications close 11.00pm BST on Saturday 14th August 2021. Eligibility is limited to current IAH members only (2021 dues paid, or on sponsorship programme). Winners will also be announced in the December 2021 edition of "News and Information".

## SECRETARIAT





# Members' Book Draw

## Win a copy of "International Law and Transboundary Aquifers" by Francesco Sindico

Thanks to Francesco Sindico (Reader, International Environmental Law and Director, Strathclyde Centre for Environmental Law and Governance) and Edward Elgar Publishing, we've a copy of "International Law and Transboundary Aquifers" to give away to a lucky IAHL member in our latest book prize draw.

Groundwater amounts to 97% of available global freshwater resources. Emphasising the crucial importance of this in the context of increasing population, climate change and the overall global water crisis, Francesco Sindico offers a comprehensive study of the emerging body of international law applicable to transboundary aquifers.

Adopting a scenario-based approach, this much-needed book analyses a diverse set of transboundary aquifer agreements and arrangements. With just a handful of such agreements and arrangements around the world, it demonstrates how identifying a normative roadmap for countries that want to begin jointly managing a transboundary aquifer is of paramount importance. Offering an in-depth exploration into the ILC

Draft Articles on the Law of Transboundary Aquifers, it provides insight into how this body of law is evolving, and discusses its relation to customary international law.

Academics and researchers interested in international water law, environmental law and public international law more widely will find this a unique and compelling work, whilst the book's practical approach will also make it a useful tool for transboundary aquifer professionals and wider stakeholders working in governments and public bodies dealing with water management around the world.

To enter to win, complete your details including membership number here:

[https://www.surveymonkey.co.uk/r/LawTBA\\_Sindico](https://www.surveymonkey.co.uk/r/LawTBA_Sindico)

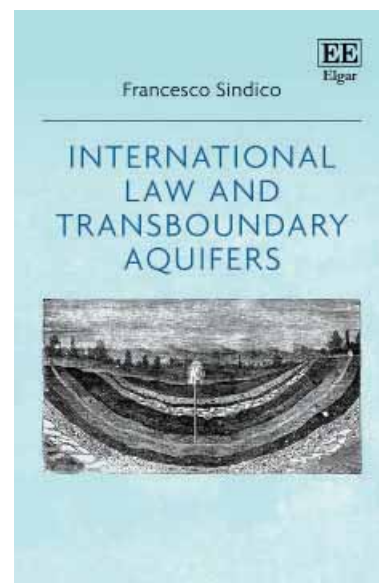
To find out more about the book, visit:

<https://www.e-elgar.com/shop/gbp/international-law-and-transboundary-aquifers-9781788117623.html>

### Terms and conditions:

Prize draw closes 11.45pm BST on Thursday 30 September 2021. Entry is open to current IAHL members only (2021 dues paid, or on sponsorship programme). One entry per individual (additional entries will be discarded). One registration is on offer for this draw. The winner will be picked by random draw and will be contacted by email soon after the closing date. The winner will be also be announced in the December 2021 edition of "News and Information".

SECRETARIAT



## MEMBER MATTERS



# New Members

A warm welcome to the following new members, who joined our Association in the period 24 March - 21 June 2021

### AUSTRALIA

Cihat ADSIZ  
Mohammed ALAMGIR  
Rohan BAIRD  
*Water Technology*  
*NMR Services Australia Ltd Pty*  
Kaitlyn BRODIE  
Bianca BURKE  
Daryl BURROWS  
Alison CHARLES  
Anaika CHARLES  
Liam COWPER  
Blake DEEGAN  
Isabelle DIONNE  
Lucy DU  
Melisa EDWARDS  
Darren FARMER  
Joanne FERRY  
Chris FLOMERSFELD  
Genevieve FOLEY  
Rachell FULLER  
Anne GIBSON  
Sarah GROVES  
Sarah HAGERTY  
Ben HALES  
Kathryn HARRIS  
Paul HEDLEY  
John HEMSON  
Blake HOCKING  
Claire KASPERKEIWICZ  
Ksenya KONSTANTINOFF  
Devmi KURUKULASURIYA  
Pieter LABUSCHAGNE  
Cecilia LAZOSKOLD  
Margaret MAZUR  
Jamie MCARTHUR  
Cormac J MCCORMACK

Sandra MCEWAN  
Emma MCGIVERN  
Jordan MCGLEW  
Scott MCGOWAN  
Nathan MCGUIRE  
Dickson MENDANO  
Roger MIDDLEMIS  
Adam MURFET  
Tom NEIL  
Krystle NICHOLS  
Gosia OFMAN  
Haken PARKER  
Anne-Sophie PARROD  
Eva PELLEGRINI  
*Rio Tinto (Water Resource Evaluation)*  
Mario REYES  
John ROSS  
Magnus SKOLD  
Brittany SMYTH  
Ben SNOWDOWN  
Mick STADTER  
Jonathan TAIT  
Sarah TAZEHKAND  
Danielle TOASE  
Saeed TORKZABAN  
Thomas TUGWELL-WOOTTON  
Corneli VAN DER MERWE  
Kevin VERMAAK  
Rebecca WHITE  
Matthew WOLTMANN  
Qing YI

### BANGLADESH

Mazeda ISLAM  
Md. Mizanur Rahman SARKER

### BELGIUM

Jef DAMS  
Paulo VALLE

### BRAZIL

Fernando CARNEIRO

### CAMEROON

Oku Joshua OTU

### CANADA

James BETTS  
Steven CHAPMAN  
Michaela DYCK  
Blake HAMER  
Jonathan MUNN  
Simon NADEAU  
Huyen NGUYEN  
Kerry-Anne PUMPHREY  
Sabina RAKHIMBEKOVA  
Mike SIMPSON  
Mike WILTON

### CHILE

Luis Aquiles ALEGRIA OLIVERA  
Carla BARBOSA TRONCOSO  
Danitza BERRIOS  
Marcelo CORTES  
Cristobal COX OETTINGER  
Eduardo HIDALGO PASTORINI  
Idoia PALACIOS  
Daniela PENA  
Rodrigo ROMERO JARA  
Francisco SILVA  
Matias VELAZCO

### CHINA, PEOPLE'S REPUBLIC

Jie ZHAO

### FRANCE

Yvan ALTCHENKO  
Alexandra LAURENT  
Michel TIRAT  
Lina VARON

### GERMANY

Nouha SAMLANI

### INDIA

Shafquat ARFA  
PN BHARGAVA  
PC CHANDRA  
Anuva CHOWDHURY  
SC DHIMAN  
Jasmine G  
SK JAIN  
Satendra Mohan KANWAR  
Priyanka KHANNA  
Harish KUMAR  
Anup KUMAR  
Neha KUMARI  
L.N. MATHUR  
Vijay Pal MEENA  
Tarun MISHRA  
Anirban MONDAL  
Jayesh MUKHERJEE  
Mohit NARANG  
N.J. PAWAR  
*Geoclimate Risk Solutions*  
Reeta RANI  
Anirudh SAHNI  
Amrish SAINI  
P. Daniel SANANTH  
E SHAJI  
N SHARMA  
RC SHARMA  
Amit Vijaykumar SHIRKE



Prasun Kumar SINGH  
Apurv SINGH  
RM SINGH  
Khushboo SINGH  
Sujit SINHA  
Anuj SONI  
VS JOJI  
Sonam YADAV

#### IRAN

Fatemeh ASGHARI KALESHANI  
Rahim BAGHERI  
Rahil EBRAHIMPOUR  
Hadi JAFARI  
Mohammad NAKHAEI  
Katayoon SATARYAN ASIL  
Mohammad Mahdi SEDGHI  
Parisa SERATI

#### IRELAND

Rafaela CHRIST DA SILVA  
Jade CLARKE  
Conor GAFFNEY  
Michelle MWADIWA

#### ITALY

Roberta BONI  
Lorenzo LANZAFAME  
Valeria LORENZI  
Roberto VILLANI

#### KAZAKHSTAN

Malis ABSAMETOV  
Yermek MURTAZIN  
Timur RAKHIMOV  
*Akhmedsafin Institute of Hydrogeology  
and Environmental Geoscience LLP*

#### KENYA

Lydia OLAKA

#### LEBANON

Marc METNI

#### MALAYSIA

Abdul Jalil OTHMAN

#### MEXICO

Yussef Ricardo Abud RUSSELL  
Tatiana AGUILAR CASTILLO  
Alessia KACHADURIAN  
Roger PACHECO-CASTRO

#### MOROCCO

Youssef ARJDAL  
Latifa BOUIB  
Ikram BOUZAIDI TIALI  
Ayoub EL AOIFY  
Mohamed EL BOUHADDIOUI  
Asma ELFIRDOUSSI  
Amine TAHIRI

#### NETHERLANDS

Rogier DUIJFF

#### NIGERIA

Ubong EKANEM

#### NORWAY

Ingrid Austad POTTIER  
Anna VÅRHEIM  
Silje Marie VASSTEIN  
Andrea WAADE

#### PERU

Aldomar CORNEJO AGUIRRE  
Cristian Paúl QUILICHE CARRASCO  
Renzo VELASCO

#### POLAND

Dariusz DOBRZYNSKI

#### PORTUGAL

Rita CARVALHO  
Zunchany MATOLA

#### ROMANIA

Serban DRAGOMIR

#### RUSSIA

Tatyana DOROSHENKO  
Vladimir KOKOSHKO

*Saint-Petersburg Ecology LLC*

Anastasia ROMANOVA

#### SAUDI ARABIA

Abdulkhaliq ALJUHAN

#### SLOVENIA

Anja KOROŠA  
Petra SOUVENT

#### SOUTH AFRICA

Reynold CHOW  
Nkafu Takang Stephen FONKEM  
Mthulisi MPOFU

#### SPAIN

Carlos COUZO REIG  
Jofre HERRERO FERRAN  
Jose MESA FERNANDEZ

#### SWITZERLAND

Álvaro OSORIO RIFFO  
Cyrille SCHERRER

#### THAILAND

Sakda VICHEANSIL  
Surin WORAKIJTHAMRONG

#### TUNISIA

Ibtissem YAHYAOU

#### TURKEY

Necati Erdem KALAYCIOGLU

#### UGANDA

Julius AHEEBWA

#### UNITED KINGDOM

Marc J. ADDISON  
Sarah ASHLEY  
Daniel MATTHEWS  
Helen ROBINSON

#### UNITED STATES OF AMERICA

Lauren BARTELS  
David BOUTT  
James BUSH  
Paige LADD  
Cheyenne MORGAN  
Walter WEINIG

*NB: Those marked (c) are new IAHS corporate members.*

## MEMBER MATTERS

### ?! Beware of scam emails !?

We have again received reports of attempts to defraud members of IAH by scam email. Such attempts can include apparent requests from an IAH colleague for financial assistance based on a supposed emergency situation far from home. Unfortunately, these activities can take advantage of the global goodwill of IAH in making contact information publicly available on the website and on chapter, commission and network sites. These activities are sadly becoming commonplace.



Often it is clear that these emails have come from fake addresses, but sometimes the emails can look very convincing. Please be careful when dealing with any emails that might be suspicious. Ask yourselves, 'Would this person contact me in this way about this matter?' If you receive any suspicious emails of this sort please reject them as spam. Often the generating email address is via gmail, which you can report to Google here: <https://support.google.com/mail/contact/abuse?hl=en>. We also encourage you to report suspicious emails to the authorities in your country so that they can help fight international cyber crime.

SECRETARIAT

### Check your records!



Are you receiving your regular IAH messages and alerts with HJ link and latest news digests and initiatives?

Ensuring that our members receive their IAH benefits such as the Hydrogeology Journal is important to us. Do you work for a large government/commercial/educational organisation? Many such employers have firewalls in place. You may have to provide an alternative email address to receive your member mailings, or speak to your IT department. IAH emails are always sent from an @iah.org address. Please check your details and IAH settings regularly - we'd hate you to miss out.

SECRETARIAT



<https://iah.org/members/edit-details>



Share knowledge and memories... @iahgroundwater #iahgroundwater



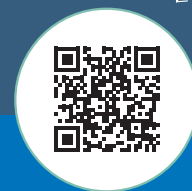


# NAVIGATING THE FUTURE.

## Groundwater Week

Nashville, Tennessee • December 14-16, 2021

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- Gain valuable insight regarding future industry trends and offerings
- Learn about industry advances by attending any number of **informational and educational sessions.**



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more information.



REGISTER TODAY!  
[groundwaterweek.com](http://groundwaterweek.com)



AUGUST 2021

## Current considerations...

National chapters must provide an annual report on their activities. This helps us to make our formal reports required under UK law and can also help the national committee in reporting to members in their country. We have received quite a number for 2020 so far - you can see these at <https://iah.org/about/reports/groups> - and we look forward to receiving others soon. (If you don't have the reporting template to hand let us know at [info@iah.org](mailto:info@iah.org)).

Several common themes were raised in the chapter reports. Much of this related to the Covid pandemic, which has had a major impact on activities, but it's great to see how chapters have managed in the virtual world. In fact there have been many very successful online workshops and meetings.

While membership in some chapters has fallen, for others it has remained stable - and during the past, challenging 12 months, some even managed to increase their membership. Any 'secrets of success' that can be passed on would be very welcome! It is notable too that in different countries IAH may attract members from different backgrounds - academic, commercial, governmental, etc. The proportion varies between countries for reasons that are not always clear.

We are aware that Covid imposed pressures on individual finances, which affected membership. Membership fees remained unchanged, which hopefully was helpful to members and chapters, and we were also able to help some who had difficulties in meeting the annual fees. We are looking at our fee structures and funding opportunities. We want to ensure fair and proportionate fees, so that our funding can cover both the essential administrative needs and support activities in our chapters.

Attractive fees, adequate funding and associated benefits are critical for chapters to retain and recruit members. Several chapters asked about central funding for local events and grants for students. Although chapters are entitled to 10% of the membership fees for their country, we appreciate that this may not represent a great amount when the number of members is relatively low. We are looking at how we can provide support, including being more active in seeking donations from companies.

The costs of bank transfers for small sums can be disproportionate but payments in other ways may be possible. For example, annual fees for honorary members or students can be arranged centrally on behalf of chapters. In addition, a reminder that our sponsored membership scheme can also be used to help those on lower incomes - <https://iah.org/join-us/sponsorship-scheme>. Some chapters have also been able to make funds available for scholarships and other initiatives, which is encouraging.

In the chapter reports there were calls for IAH to do more on training and education. This has received more attention over the years and there are plans for a more concerted effort. A recent success, with so much activity now online, is the number of webinars presented by national chapters, commissions and networks, and sister organisations (often with IAH support). We want to support this and find effective ways to publicise these events. We also want to see how we can help identify and fill gaps. We are looking at providing easier access to conferences, including that congresses and conferences should make more of the proceedings available online and at manageable cost to members. This year we are also using some central funding to help those on lower incomes participate in the Sao Paulo and Brussels congresses.

Some chapters felt that use of languages other than English would help attract more members in their countries. It was also suggested that a Spanish language journal would be valuable, which would complement journals published by the Italian chapter (in Italian) and the Indian chapter (in English).

Some raised concerns about other organisations competing with IAH for members. This happens, unfortunately, though the overall benefits of IAH membership continue to be worthwhile. Where other membership fees are lower, we will look to understand their financial models when we review our own fees. We believe that broadly IAH offers value considering the benefits of membership and administrative needs of an international organisation but we accept we must keep all costs under review.

Mutually beneficial 'alliances' are also possible and in several cases a separate organisation acts as the national chapter. Members of these organisations receive some IAH benefits, though only IAH members are entitled to the full benefits. IAH's Executive and Council are actively considering how mutually beneficial links might be developed with other societies, taking care to ensure that this would not be detrimental.

We were pleased to see to the extent of engagement by chapters, including local alliances and contributing to strategic groups and initiatives, to influence affairs in different regions.

Council and the Executive Committee are now considering a new strategic plan to succeed "Forward Look", which ran from 2010 to 2020. We will be publishing a survey shortly to ask members how they would like to see IAH develop during the coming years and we will be very pleased to hear from national chapters and their members (see page 9 for further details).

SECRETARIAT



<https://iah.org/groups/national-chapters>



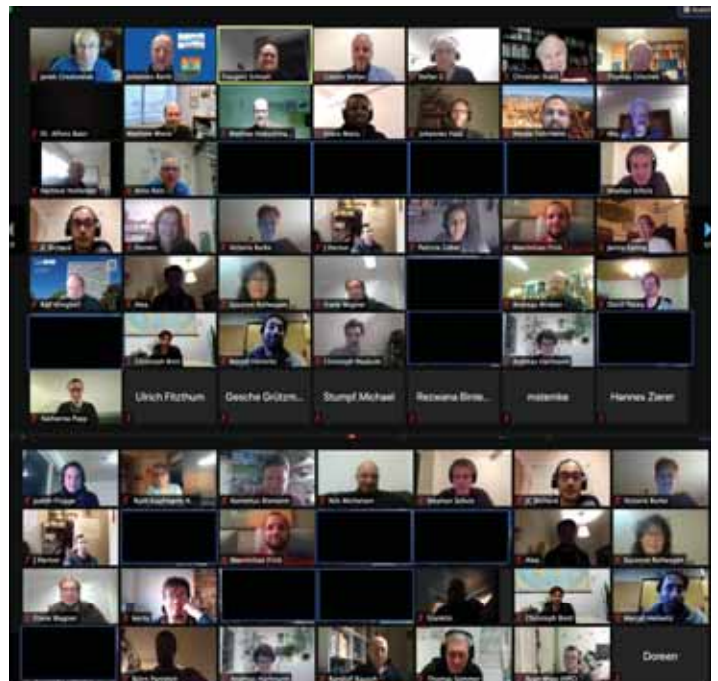
## Germany

Webinar series  
launched

"We didn't expect to reach out to so many interested hydros right at our first event" said Traugott Scheytt (president FH-DGGV) and Johannes Barth (president IAH-D). The first joint public online seminar of the newly launched series "Was ist neu in Hydro? / What's new in Hydro" was held 14 January 2021 and featured a talk by Dr. Catalin Stefan (TU Dresden) about "Managed aquifer recharge as adaptation tools to global change: opportunities and ways forward". The 100 available seats were taken on the spot, with participants dialing in not only from Germany, but also from Switzerland, Canada and South Africa. The subsequent discussion in German and English was lively and stimulating.



<https://germany.iah.org/>



AUGUST 2021

## 2021 - SELECTION

22-27 August – BRAZIL/ONLINE HYBRID EVENT

47th IAH Congress – IAH 2021 Brazil

GROUNDWATER 4.0: CONNECTED, VISIBLE AND ETHICAL Organised by Brazilian National Chapter of IAH/ Brazilian Groundwater Association (ABAS), Latin-American Groundwater Association (ALHSUD). <https://iah2021brazil.org/en/>



6-10 September - BELGIUM

48TH IAH Congress - IAH 2021 Belgium

Inspiring Groundwater - We'll be there, ready to host - whatever happens. Will you? Organised by IAH Belgium (CBH-BCH). [www.iah2021belgium.org](http://www.iah2021belgium.org)



26-29 September – Niagara Falls, Canada

GeoNiagara 2021

The Canadian Geotechnical Society (CGS) in collaboration with the Canadian National Chapter of the International Association of Hydrogeologists (IAH-CNC) invite you to GeoNiagara 2021, the 74th Canadian Geotechnical Conference and the 14th Joint CGS/IAH-CNC Groundwater Conference. The theme is "Creating a Sustainable and Smart Future" and the conference will feature technical sessions on subjects of broad interest in the geotechnical and hydrogeological fields. <https://www.geoniagara2021.ca/>



6-8 October – Online and Pyatigorsk, Russia

Подземные воды – 2021/Groundwater 2021

Предлагаемая тема ежегодного собрания: Поиск залежей подземных вод, оценка запасов подземных вод; разработка и эксплуатация залежей подземных вод. Приветствуются и все другие темы докладов. Сессии будут открыты для всех членов МАГ и всех заинтересованных ученых, инженеров и экспертов в области изучения подземных вод. (Основной язык: русский)

<http://gkz-rf.ru/news/podzemnye-vody-2021-06-08-oktyabrya-2021-goda>



22-13 November– Perth, Australia

Australasian Groundwater Conference 2021

AGC2021 promises to attract a large number of delegates and organisations representing industry, consulting, government and academia, making it the premier groundwater industry conference in the Australasian region. This years' conference theme is Science, Resilience and Adaptation, topics that have been well and truly at the fore over the past 12 to 18 months. <https://agc2021.com.au/>



1-3 December– Napoli, Italy

Flowpath 2021

(rescheduled again, owing to pandemic) Italian IAH Congress. Sessions include: Climate change and groundwater; Groundwater Resource and Sustainability; Geothermal, Urban and Contaminant Hydrogeology; Groundwater flow and hydrogeochemical features in volcanic, karst and coastal plain aquifers. <http://www.flowpath2021.unina.it/>



6-8 December– Paris, France

ISARM 2021: 2nd International Conference on Transboundary Aquifers

SARM II "Challenges and the way forward"; aims to be an opportunity for showcasing diverse efforts made by UNESCO, the International and Donor community (GEF, the World Bank, the FAO, the Swiss, the German etc...) to streamline groundwater as an enabler for achieving the water-related SDGs. No registration fees are required to attend or participate in this Conference. (IAH is one of the conference partners)

<https://en.unesco.org/conference/isarm2021>



<https://iah.org/events>

For a fuller list of conferences, events and meetings and to submit an event



Share knowledge and memories... @iahgroundwater #iahgroundwater