





## International Association for Hydro-Environment Engineering and Research

Hosted by Spain Water and IWHR, China





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### IAHR Spain Young Professionals Network





### IAHR Spain Young Professionals Network 2020 Annual Report of Activities

### 1. Introduction

The IAHR Spain Young Professionals Network was set up in July 2020 from the three existing Spanish YPNs: South East Spain YPN (which included members from the Universities of Cartagena, Valencia and Castilla-La Mancha), Madrid YPN and Galicia YPN. The main objective of this new YPN is to foster a national collaboration network among young researcher and water professional, give visibility to events, scholarships and contracts offered interesting for the YPN members, and organize and disseminate talks, interviews and webinars at national and international level in the scope of water engineering.

### 2. 2020 main goal and key objectives

The IAHR Spain Young Professionals Network was set up in July 2020, so the main goals are related to getting started a national network that is useful to the members of the YPN. Introduce the new YPN to the IAHR Spanish chapter and start up a monthly webinar activity are the key objectives raised for this first year.

### 3. Communications

[Website and social networks]

Website	https://www.iahr.org/index/committe/121
Facebook	-
Twitter	https://twitter.com/SpainYPN
Instagram	-
Linkedin	-
Other	-

### [Promotional and information materials]

Newsletter/s	-
Publication/s	-
Other	-



### 4. Activities

### Activity 1



Name of the activity

Introduction of the new Spain YPN to the members.

Dates

29th October 2020

Objectives

Making known the new union of the three YPN

Encouraging active participation of members Appoint a social media officer

To publicise ideas for planned activities and listen to the opinions and new proposals of members

Description

The new Spain YPN was introduced to the members.

### **Activity 2**



Name of the activity

Collaborating in practice classes of the Civil engineering master in the Hydraulic's Lab of CITEEC at Universidade da Coruña.

Dates

11<sup>st</sup> November 2020

Objectives

Dissemination

Description

Spain YPN members from the university of A Coruña have collaborate in the visit to Hydraulic's Lab of CITEEC made by civil engineering master students in.

Picture/s	Name of the activity
	1 <sup>st</sup> monthly webinar of the Spain YPN.

## Spain Young Professionals Network

### 2020 Annual report of activities



Dates

26<sup>th</sup> November 2020

Objectives

Dissemination

Professional development

Description

Araceli Martin presents her recent thesis in a free open webinar.

### **Activity 4**

Picture/s	Name of the activity 2 <sup>nd</sup> monthly webinar of the Spain YPN.
	Dates
CALADIO	17 <sup>th</sup> December 2020
( CAMBIO	Objectives
	Dissemination
	Professional development
OLIMATIOO	Awareness project
<ul><li>AQUÍ Y AHORA</li></ul>	Description
	Sarai Diaz presents the project ""Cambio
	climático aquí y ahora" in a free open webinar
	(https://www.cambioclimaticoaquiyahora.uclm.e
	<u>s)</u> .

Have you organised any activities to promote membership? If yes, please include them

Picture/s	Name of the activity Introduction of the new IAHR at the "XIV Seminario de la Red de Laboratorios de Hidráulica de España"
	Dates 8 <sup>th</sup> October 2020
	Objectives
	Motivating membership
	Making know new Spain YPN





### 5. Partnerships and collaborations

Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership
IHE Delft	Dissemination of <i>River Basin Development online seminars</i>
	organized by IHE Delft
SAIH Miño-Sil	Dissemination of two job opportunities among the YPN
	members

### Collaboration with other YPNs

YPN name	Description of collaboration
Latin-American YPNs	Creation of whatsapp group to disseminate
	activities

### 6. Contributing to the strategic plan

7.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (<a href="https://www.iahr.org/index/detail/101">https://www.iahr.org/index/detail/101</a>)

The activities already organized by the IAHR Spain YPN are closely related with the four pillars stated at the IAHR Strategic Plan by starting up a young professional network at national level, providing a useful communication with other international YPN towards future collaborations between IAHR young members. In addition, big efforts are being made into dissemination of the projects and works developed by Spain YPN members.

### 7.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

The objectives of Spain YPN contribute to the IAHR YPN high-level aims. A sense of network is established and the participation and collaboration of the members is encouraged by sharing experiences with the proposed webinars. In addition, collaboration with other YPNs is encouraged by participating in their initiatives with working groups. In addition, we participate in events organized by the IAHR such as seminars, symposiums, workshops and congress (most recently the 1st Young Professionals Congress).

### IAHR 10-Italy Young Professionals Network





### **IAHR 10-Italy Young Professionals Network**

### **2020 Annual Report of Activities**

#### 1. Introduction

The IAHR 8-Italy YPN was born in 2011 as Student Chapter 4-Italy, linking PhD students of four University in north Italy (Brescia, Milan, Padua and Trento). It developed into an IAHR Young Professional Network in 2014, by involving young researchers from private companies, as well. The, it enlarged to a total of eight Italian cities (Brescia, Firenze, Padua, Palermo, Parma, Trento, Trieste and Turin) and to 10 cities in 2018 (Bolzano and Naples). IAHR 10-Italy YPN members are researchers in fluids mechanics and river engineering, tackling different aspects: sediment transport, turbulence, river restoration, hydro energy, eco-hydraulics and others.

### 2. 2020 main goal and key objectives

The aim of the IAHR 10-Italy YPN is to create moments to foster closer links between young faculty members and researchers in academia and professionals in organizations and engineers in private companies.

Members take part to IAHR Congresses and other forums and organize group trips to symposia, workshops and congresses, in sharing knowledge and experiences in the field of hydroenvironment engineering and research.

The IAHR 10-Italy YPN is looking around to collaborate with neighbouring YPNs and to involve more and more young professionals from private companies.

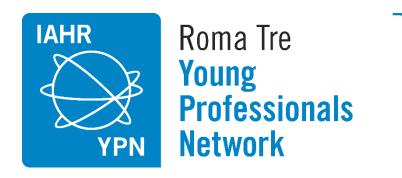
#### 3. Communications

Website	https://www.iahr.org/index/committe/37
Facebook	https://www.facebook.com/groups/471877 636270342
Twitter	
Instagram	
Linkedin	
Other	

#### 4. Activities

Due to Covid situation and according to Italian rules to prevent infection, our YPN members could not keep on working at University. Additionally, lockdown did not allow members to meet in person. Virtual meetings were then organised to discuss the situation and how to proceed on working, especially for those members dealing with lab experiments.

### IAHR Roma Tre Young Professionals Network





### IAHR Roma Tre University Young Professionals Network

### **2020 Annual Report of Activities**

#### 1. Introduction

The IAHR Roma Tre University YPN brings together a group of Ph.D students and young professionals with engineering and physics backgrounds from Roma Tre University in Rome, Italy. The network aims to promote the exchange of experiences, research progresses and skills in different areas of hydraulics and related environmental sciences with broader interest in experimental, theoretical and computational fluid mechanics. We will strive to foster an inclusive and collaborative research network based on planned seminars and webinars.

### 2. 2020 main goal and key objectives

Roma Tre University YPN has been created on November 2020. As new members of IAHR YPNs, we aim to improve the communications and facilitate connections with other YPNs worldwide, also by using social media accounts. To this end, we created a professional page on LinkedIn to present our team and share the activities.

We are planning seminars and webinars for the members, to start the exchange of ideas and research topics. In this regard, in November many of the YPN members participated to the 1<sup>st</sup> YPN Congress organized online, to present their works and activities. In the following months, we aim to promote our network in order to foster the inclusion of more candidates as new members of the YPN.

### 3. Communications

[Website and social networks]

Linkedin	https://www.linkedin.com/company/iahr-
	roma-tre-ypn



### 4. Activities

[Activities organised in 2020]

### **Activity 1**



1<sup>st</sup> IAHR Young Professionals Congress

Dates:

17-18 November 2020

Opportunity for the YPN members to be introduced in the YPNs and IAHR community and present the research works

### IAHR Cardiff Young Professionals Network





### IAHR Cardiff Young Professionals Network 2020 Annual Report of Activities

#### 1. Introduction

The Cardiff University chapter of the IAHR YPN was formed in 2014 with the aim of bringing together members of the scientific community – from both academia and industry – to share current research and practice in the field of water resources. As a network in the broad field of hydro-environmental engineering the group not only covers a wide range of research topics, they are also able to learn from each other and help one another make the most of their time studying in Cardiff. Together, and in cooperation with Cardiff University's Water Research Institute and CIWEM, the network has steadily grown through a series of seminars, social gatherings and field trips. Monthly seminars tackle current issues under the theme of 'Understanding water issues in a rapidly changing world', with early career research students featuring alongside guest speakers from organisations including Natural Resources Wales, Welsh Water and JBA. Since Coronavirus lockdown restrictions were imposed the network has continued its activities online, maintaining its regular seminar series, and has even included a water-themed pub quiz! We also have monthly member's only round-table events to share research opportunities and challenges to help each other move forward in our work. For more information about the IAHR YPN's activities, visit their Twitter page @YpnCardiff.

### 2. 2020 main goal and key objectives

Our main objectives for 2020 were:

- To consolidate the previous work of the network in terms of research and network activities through more frequent and more focused meetings.
- To build on relationships with hard won industry and academic contacts.
- To create a more inclusive atmosphere to all events so that a wider range of people can get involved and engage with our work.

### 3. Communications

Website	Under construction
Facebook	YpnCardiff
Twitter	@YpnCardiff
Instagram	N/A
Linkedin	N/A
Other	N/A



Newsletter/s	See attached for 2019 newsletters, the 2020
	newsletter will be published in late
	December
Publication/s	Included in newsletters
Other	N/A

### 4. Activities

### **Activity 1**



Activity: Seminar Series (in person at the beginning of the year, continued online from April due to Coronavirus restrictions)

#### Dates:

- 29/1/20 Water Quality
- 21/2/20 Natural Flood Management
- 8/4/20 Water & the Consequences of Climate Change
- 24/4/20 Flooding Hazard and Risk (followed by a water-themed quiz!)
- 3/6/20 Coastal Processes

### Objectives:

- To hear from early career researchers and members of industry and academia on topics relating to all realms of the water world
- To learn about and discuss topics relating to member's research
- To give members a platform to share their work
- To provide network opportunities for YPN members & raise the profile of the YPN

### Description:

The theme for our seminar series this year was "Understanding water issues in a rapidly changing world." The seminars are semiformal events presenting the work of student members and academic and industry contacts around a theme followed by a social time for networking. Attendance





at in-person events usually reaches around 20 people so we were really pleased that when we started to meet online we were able to draw up to 45 participants to each event.

### **Activity 2**



Activity: Trip to see the Severn Bore followed by dinner

Date: 13/3/20

### Objectives:

- Research interest for students studying tidal energy and estuarine dynamics
- Motivating membership

### Description:

Road trip to a site on the Severn estuary to see the phenomena of the bore wave and enjoy a meal together.

### **Activity 3**

Activity: Bake Your PhD (in conjunction with Cardiff University Water Research Institute Early Careers Group)

Date: 16/6/20

### Objectives:

- Motivating members
- Exposure for research

## Cardiff Young Professionals Network

### 2020 Annual report of activities



### Description:

A creative way for students to share their research, representing their projects in cake! This was a really fun project for students to get involved in whilst working remotely. Here are the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place entries showing pollution in waterways, hydrodynamic modelling or turbines and fish passage through HEP projects.

### 5. Partnerships and collaborations

Organisation	Description of partnership
Cardiff University Water	Shared responsibility for organising some seminar events
Research Institute	and online competitions/events for early career members
GW4 Water Security Alliance	Shared responsibility for organising some seminar events,
	academic support for student members
WISE CDT	Sponsorship of student membership and support for
	online events
Cardiff University Doctoral	Sponsorship of in-person events
Academy	
CIWEM	Student membership, online professional development
	and networking opportunities, industry speakers for some
	seminar events



Natural Resource Wales	Industry speakers for seminar events and research
	teaching opportunities

### Collaboration with other YPNs

YPN name	Description of collaboration
N/A	We were hoping to be able to develop partnerships with other YPNs at this year's conferences which have been delayed due to the pandemic, but we hope that our group will be able to make these connections in future.

### 6. Contributing to the strategic plan

Our 2020 activities have disseminated the cutting-edge research of our members as well as inspiring further work and collaborations through sharing the work of other professional bodies and members of academia and industry. We have enhanced member experience through a balance of regular academic and social events and promoted the international work of the IAHR at monthly round-table events. Many of our members were due to attend this year's IAHR European Congress, which has since been postponed, and our Vice President Stephanie Muller presented at the first online Young Professional's Congress.

### IAHR Chile Young Professionals Network





### **IAHR Chile Young Professionals Network**

### **2020** Annual Report of Activities

### 1. Introduction

Our purpose is to create a network of young professionals and students linked to the hydraulic and environmental area, promoting participation in IAHR projects and activities. Our objective is to involve students into the working world, create bonds and networks among participants to promote collaborative work, and address hydraulic / environmental problems of social interest. For this, we actively take care of communicating and promoting publications of hydraulic and environmental studies through talks, webinars and networking activities.

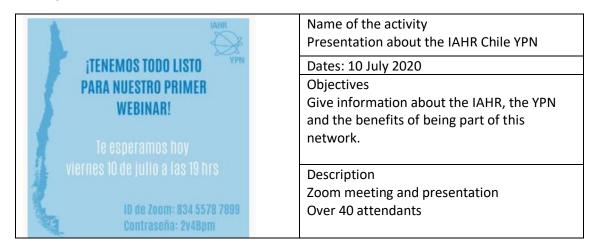
### 2. 2020 main goal and key objectives

The main objective of our YPN for 2020, is to promote the spread of the knowledge about water and environmental issues and expose our network to professionals, students and researchers of our country and encourage them to join us.

#### 3. Communications

Website	-
Facebook	https://www.facebook.com/YPNChile/
Twitter	-
Instagram	https://www.instagram.com/iahrchileypn
Linkedin	https://www.linkedin.com/company/iahr-chile-ypn
Other (YouTube)	https://www.youtube.com/channel/UCH50BvWwzvLLBnGAS683jyg
Other (Spotify)	https://open.spotify.com/show/2Uxer3TOLSbN1WCDlRK1kn?si=fFo6786 VSqC8rQaElDi7hw

#### 4. Activities



## Chile Young Professionals Network

### 2020 Annual report of activities

### **Activity 2**



Name of the activity Desiccation of the Aculeo Lagoon

Dates

14 August 2020

Objectives

Disseminate scientific knowledge on hydraulic and environmental issues

Description

Zoom meeting and presentation Over 60 attendants

### **Activity 3**



Name of the activity

Podcast Episode 1: Global climate change (Cambio climático en el mundo) (in Spanish)

Dates

13 Agosto 2020

Objectives

Reflect on contingent environmental and water issues

Description

Podcast Episode 1, available on Spotify and YouTube

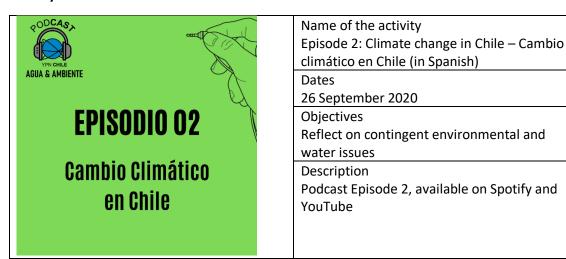
Name of the activity
Hydraulic transients in pressurized pipelines
Dates
4 September 2020
Objectives
Disseminate scientific knowledge on
hydraulic and environmental issues



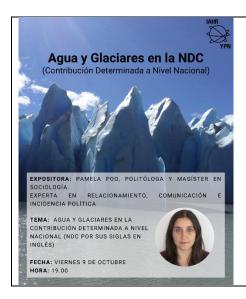


Description
Zoom meeting and presentation
Over 40 attendants

### **Activity 5**



Name of the activity
Water and glaciers in NDC (Nationally
Determined Contributions)
Dates
9 October 2020
Objectives
Disseminate scientific knowledge on
environmental issues



Description Zoom meeting and presentation Over 20 attendants

### **Activity 7**



Expositor: Óscar Link Ingeniero Civil, Dr-Ing (Tu-Darmstadt) y Profesor Titular de la Universidad de Concepción

Fecha: Martes 27 de Octubre

Hora: 18.30 vía zoom



Name of the activity

Techniques for the sustainable use of Chile's hydroelectric potential

**Dates** 

27 October 2020

Objectives

Disseminate scientific knowledge on hydraulic and environmental issues

Description

Zoom meeting and presentation

Over 40 attendants

Name of the activity
Fog water, an alternative source for
territories with water scarcity?

## Chile Young Professionals Network

### 2020 Annual report of activities



Dates

24 November 2020

Objectives

Disseminate scientific knowledge on hydraulic and environmental issues

Description

Zoom meeting and presentation Over 20 attendants

### 5. Contributing to the strategic plan

6.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (https://www.iahr.org/index/detail/101)

Our activities have focused on points 2 and 4 of the pillars of the strategic plan. With our seminars we contributed to inspire and disseminate the state of the art knowledge and thinking, presenting about themes developed in our country mainly related to sustainability and water scarcity.

Also, this has helped become a global voice on behalf of the hydro-environment engineering industry and research community, openly presenting the various research topics to our members and members of other YPNs. Our different media platforms allowed us to keep them up to date with current local development. Our aim for our last months in charge is to organize seminars with foreign authors to keep our members informed about the issues studied in other parts of the world that also involve us.

6.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

About the IAHR YPN high level aims, our YPN focused on research about the state of the art of Chilean investigations and communicate with prestigious authors or referents to organize seminars about different contingent hidraulic and environmental issues.

Also, we focused on organizing meetings with our new members to encourage the expansion of our network and we created a whatsapp group to help each other get references or to share interesting information about water and environmental topics.

### IAHR Bogotá Young Professionals Network





### IAHR Bogotá Young Professionals Network 2020 Annual Report of Activities

### 1. Introduction

YPN is a network of young researchers and professionals interested in issues associated with the environment that aims to promote links between researchers, generate research opportunities, and generally promote environmental research.

### 2. 2020 main goal and key objectives

IAHR Bogotá Young Professionals Network had as main objective during 2020 was to re-establish the network. YPN Bogotá had been inactive for two years, so it was decided to hold an open call for young researchers from different universities in Bogotá-Colombia to restructure this network.

### 3. Communications

e-mail	iahr.ypn.bogota@gmail.com
Facebook	YPN Bogotá
Twitter	@bogypn
Instagram	@bogypn

### 4. Activities

Invitation to participate in IAHR Bogotá Young Professionals Network
Dates: 01/06/2020
invite young people from different universities to participate in the network
The idea was to reactivate the network. Today the network has 17 active members.

## Bogotá Young Professionals Network

### 2020 Annual report of activities

### 5. Contributing to the strategic plan

5.1. The reactivation of the IAHR Bogota YPN allows to Inspire and spread knowledge on issues related to the environment, considering water as the articulating axis.

### IAHR Fundación Universidad del Norte Young Professionals Network





### IAHR Fundación Universidad del Norte Young Professionals Network

### **2020 Annual Report of Activities**

### 1. Introduction

IAHR Fundación Universidad del Norte YPN aims at the support of the education and professional development of future engineers in the hydraulic community. Oriented to the promotion of studies of water resources and the environment and their practical application in Engineering projects.

### 2. 2020 main goal and key objectives

The main objective in 2020 were promoting the role of science in the development of solutions for water issues at a global level, along with providing spaces to hold talks, as well as workshops to students related to the handling of software and other issues related to water resources.

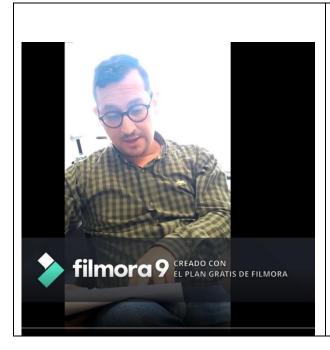
### 3. Communications

Website	https://www.iahr.org/index/committe/67
Twitter	@ypnuninorte
Instagram	ypnuninorte
Linkedin	IAHR Fundación Universidad del Norte YPN

### 4. Activities

Name of the activity
Interview. Bases of coastal engineering
and current situation in the Colombian
Caribbean coast.
Dates
On 16 July 2020
Objectives
To make known fundamentals of this
branch of hydraulics and to extend the
invitation to students to take elective
courses in this concern.





### Description

PhD Germán Rivillas, professor at the Department of Civil and Environmental Engineering at the Universidad del Norte was interviewed by two members of this IAHR YPN. "What is this field of the hydraulics about?", "What can we expect from this branch in the future for the city of Barranquilla?'" were some of the questions discussed in this dialogue.

### **Activity 2**



### Name of the activity

Workshop. Raster handling (DEM and satellite images) in watershed delimitation.

### **Dates**

### On 24 September 2020

Objetives. Providing spaces for software learning and initiation in the handling of tools used to solve hydraulic problems.

### Description

MSc Alexander A. Montalvo M., professor at the Department of Civil and Environmental Engineering at the Universidad del Norte gave a workshop, in which he explained in detail the different steps for delimiting a watershed via QGIS.

## Fundación Universidad del Norte Young Professionals Network

### 2020 Annual report of activities

### **Activity 3**



Name of the activity

Recorded video. Current research in Uninorte concerning the topic use of membrane technology.

Dates

On 5 October 2020

Objectives. To explain studies conducted at Universidad del Norte related to water treatment via membrane technology.

### Description

An invitation was made to PhD Aymer Maturana, professor at the Department of Civil and Environmental Engineering at Universidad del Norte. He briefly explained through a video what the principle behind membrane technology is. In the same way he indicated how this technology is used in current research at Universidad del Norte.

### **Activity 4**



Name of the activity
Participation in the 1st IAHR Young

Professionals Congress.

Dates

On 18 November 2020

Objectives

To encourage students to participate in the research areas of the hydraulic community.

Description

Three students of civil engineering at Universidad del Norte participated in the 1st YPN Congress conducting an extended abstract for the Ecohydraulics theme. Their research was mainly focused on the topic "Eco-Hydraulic impact of plastic flow over the mouth of the Magdalena River and adjacent beaches".

Have you organised any activities to promote membership? If yes, please include them

## Fundación Universidad del Norte Young Professionals Network

### 2020 Annual report of activities

We have held general meetings with the members and have explained to them the benefits of obtaining membership of the group, so that we are all committed to constantly disseminating all these advantages to the other students by also inviting them to the meetings so that they can be encouraged and become part of the water community.

### 5. Partnerships and collaborations

Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership
-	-
-	-
-	-
-	-

Collaboration with other YPNs

YPN name	Description of collaboration
-	-
-	-
-	-

### 6. Contributing to the strategic plan

7.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (https://www.iahr.org/index/detail/101)

The activities carried out in 2020 have contributed to the IAHR's vision and strategic plan, since our efforts have positively impacted many people of our hydraulic community in Barranquilla. Our activities, which included the publication of posts through social media, allowed many students from Universidad del Norte to be updated in hydraulic topics at a global level. Likewise, the talks given, such as those on handling of software, water treatment, and coastal engineering, have made possible the accomplishment of learning objectives, demanded and desired by students. All the activities carried out throughout 2020 were aimed at promoting the education and professional development of future engineers in the water community.

7.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

Our YPN contributes to the high-level objectives of the IAHR by promoting spaces to discuss current water issues, as well as providing constant update to students on all water-related challenges that are being presented worldwide so that we can be part of the solution in the near future.

# IAHR Universidad Nacional De Ingeniería - Geahh Young Professionals Network





### IAHR Universidad Nacional De Ingeniería -GEAHH - Young Professionals Network

### **2020 Annual Report of Activities**

#### 1. Introduction

Due to the current situation it was not possible to carry out the activities of all the areas in a similar way to the previous periods due to this, the activities of the logistics area were derived to support the other areas, the other areas continued with their normal activities, but adjusting to the type of remote activities, avoiding always the congregation or expose our members or aspiring members to any risk of the current situation. Considering this structure, an attempt was made to stimulate the participation of each area, giving greater freedom and decision-making capacity to the respective heads, so that the group could work more efficiently.

### 2. 2020 main goal and key objectives

Our YPN aims to promote, disseminate and develop activities that contribute to the engineering training (including academic plans, research and leadership) to students of the Faculty of Civil Engineering of the National University of Engineering,, contemplating a projection towards other universities and institutions, in the areas of hydraulics and hydrology, and also to share knowledge and experiences in the field of engineering and research related to water.

#### 3. Communications

[Website and social networks]

Website	
Facebook	https://www.facebook.com/geahh.uni
Twitter	
Instagram	
Linkedin	www.linkedin.com/in/iahr-uni-geahh
Other	

[Promotional and information materials]

Newsletter/s	

Publication/s	
Other	

### 4. Activities

### **Activity 1**



Introduction to hydrology series analysis using R

**Dates** 

January 31st, 2020

### Objectives:

Teach the applications of the R language of time series in Hydrology to the members of the group

### Description

Before the beginning of the workshop it was indicated to install Rstudio and download the libraries that would be used in the session.

It started with some basic operations in Rstudio. Some parameters in hydrology were explained.

He made applications in hydrology using RStudio.

An introduction to offshore wind farms and
subsea cable burial



**Dates** 

February 28th, 2020

Objectives

Introduce the main concepts for the design, operation, and maintenance for offshore wind farms

Description

This seminar focused on the topic of offshore wind farms, its design criteria, advantages, disadvantages, operation and maintenance of offshore wind farms.

#### **Activity 3**



Cycle of virtual conferences on hydrology and hydraulic

**Dates** 

May 2nd, 2020

Objectives

To present an overview of physical modeling in hydraulics and integrated water resources management.

Description

This activity consisted in different seminars in Google Meet:

Theory and applications of physical modelling in hydraulics.

Integrated water resources management

with the SIMGES model and application in the Mijares basin, Spain.

#### **Activity 4**



Theory and applications of physical modelling in hydraulic

**Dates** 

May 16th, 2020

Objectives B

Delivering a comparison on the usage of physical models made in the UNAM

Description

Explain the process to make physical models in comparison to prototypes and its importance

#### **Activity 5**

An introduction to R and climate change
Dates
June 27th, 2020
Objectives
Deliver different R applications such as in hydrology and climate change



#### Description

The basic concept on the programm were presented, explaining with application in hydrology, an example with covid data, and climate change

#### **Activity 6**



Dams and connectivity in amazon rivers

#### Dates

July 1st, 2020

#### Objectives

Share points of view on the impact of infrastructure in amazon rivers

#### Description

Conversation among: Dr Victor Miguel Ponce, Dra. Ada Liz Arancibia, Dr Cayo Leonidas Ramos Taipe, Dr. Patrick Venail, focused on the impact of dams, hydroelectric power stations in the amazon.

#### **Activity 7**



Dancing rivers and its importance in the understanding of impacts of infrastructure in the amazon

#### **Dates**

August 10th, 2020

#### Objectives

Show the results of the research carried out by Dr Abad on the dynamics of amazon rivers

Also the projects in development in the area such as the Amazon hydroway

#### Description

The main features of the amazon rivers were explained, focusing on sediments transport and the fluvial dynamics.

It was also explained the development of projects in the amazon such as the Amazon hydroway and hydroelectric power houses

#### **Activity 8**

Determination of width and depth of meandering rivers:

How will they change with climate change and installation of infrastructure



**Dates** 

August 10th, 2020

Objectives

Show the variations over time in width and depth on Huallaga river and Marañon River

Description

Show the studies focused in the analysis of behaviour of rivers' width and depth through its variation in time due to the process of sedimentation and erosion in rivers

#### **Activity 9**

Flood control in the peruvian amazon
Dates
November 10th, 2020
Objectives
Show the problems generated by the rivers of the jungle also show alternative solutions to these.



#### Description

He focused on showing the way in which rivers develop in the Peruvian Amazon, then he sought to explain how they are designed and in what way the riparian defenses act in the fluvial morphology of the river.

#### **Activity 10**



Water balance: using catchment wetting

**Dates** 

November 11th, 2020

Objectives

Describe Water balance using catchment wetting

How much water can be pumped from an aquifer maintaining sustainability

#### **Activity 11**



Hydrologic model Tetis capacity in management of water resources

**Dates** 

August 10th, 2020

Objectives

Deliver the usefulness of software TETIS as an application in water resources

Description

In the session they talked about the Hydrological modeling TETIS can provide us and the advantages that it presents.

#### **Activity 12**

Marañon river and Huallaga river in the Andes
Dates August 10th, 2020
Objectives  Show the studies that are currently taking place in the Huallaga river and Marañon river



#### Description

The process of the studies in Marañon river and Huallaga river were explained, also the evaluation of river behaviour towards the action of sediments, focusing on measurements taken in the area of study.

#### Activities to promote membership:

#### **Activity 1**

Searching for new members GEAHH
Dates
November 14th, 2020
Objectives:
To present our YPN to our fellow university students and this branch of Civil Engineering
Description





First we got together in a meeting in Google Meet

Second we presented our active members and how we are organized

Third, we talked about the activities we were planning to do with them.

Then some former GEAHH members exposed their current jobs and how our YPN helped them in their career development.

Finally, we took a screenshot with all the participants

#### 5. Partnerships and collaborations

Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership
Geahh-Fica-Unheval	Conferences organization
GIEHH UPN	Conferences organization
CEIC UNI	Conferences organization

#### Collaboration with other YPNs

YPN name	Description of collaboration
IAHR UTEC Water and Environmental	Conferences organization
Research Young Professionals Network	
IAHR Pontificia Universidad Católica del	Conferences organization
Perú Young Professionals Network	

IAHR Universidad Peruana de Ciencias	Conferences organization
Aplicadas (UPC) CEDIARHMA's Young	
Professionals Network	
IALID Universided Nacional Agreeia La	Conferences organization
IAHR Universidad Nacional Agraria La	Conferences organization
Molina CIDRHI Young Professionals	
Network	

#### 6. Contributing to the strategic plan

7.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (https://www.iahr.org/index/detail/101)

We have held a series of conferences to spread knowledge on various topics.

Some workshops were carried out for the dissemination of knowledge by members of the.

There were indications of investigation within the group and work is continuing.

7.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

Throughout the previous period we have carried out activities with the members of our association to promote a scientific attitude and research skills.

Specifically, we have carried out a reading of scientific articles that include topics related to hydraulic engineering, hydrology, irrigation, drainage and water resources management.

In addition, we have conducted research on specific topics including airport drainage, spatial distribution of rainfall, pluvial drainage systems, water turbines, stream protection and sediment transport. This activity consisted in forming working groups, assigning a topic proposed by a graduate, the graduate will advise the working groups and finally after several weeks the assigned topic will be presented to the group to share the new knowledge they obtained on the topic.

### IAHR Perú Young Professionals Network

2020 Annual Report of Activities





## IAHR Perú Young Professionals Network 2020 Annual Report of Activities

#### 1. Introduction

The IAHR Peru YPN was created as a network of young professionals and students in science and engineering who are motivated to conduct research and improve their skills in the areas of hydraulics, hydrology, water resources and their connection with other sciences such as climatology, ecology, geography, geology and related environmental sciences. The network has the support of the Peruvian Association of Hydraulic and Environmental Engineering (APIHA).

Our mission is to forge a group of highly committed professionals dedicated to promoting the involvement of young people in the integrated management of water resources in Peru and to proposing solutions to different issues where water both plays an essential role and is vulnerable. Our vision is to form a highly competent network capable of fostering future professionals who will contribute to different disciplines, policies, and decision-making in our country.

#### 2. 2020 main goal and key objectives

- Promote activities for the construction of the social, cultural, scientific and technological development of the country.
- Collaborate and participate energetically in activities for the dissemination and knowledge of relevant issues in water resources.
- Generate research through theses and scientific articles on topics related to Water Resources.
- Collaborate and support projects proposed by various groups related to Water Resources in any part of the country.
- Disseminate knowledge and progress using all the means of communication that are at your disposal.

In summary, we have tried to meet the objectives mentioned in our statute despite the complications that have occurred during this year, so we have chosen to carry out multiple events online, which has allowed us to connect with researchers from other countries.

#### 3. Communications

Website and social networks

Website	https://www.iahr.org/index/committe/122
Facebook	https://www.facebook.com/iahrperu/

Twitter	https://twitter.com/ypnperu
Instagram	https://www.instagram.com/ypnperu/
Linkedin	https://www.linkedin.com/company/ypnperu/
Youtube	https://www.youtube.com/channel/UCue8hVI I5dGSLJJI_oSEqog

#### Promotional and information materials

Newsletter/s	
Publication/s	
Other	

#### 4. Activities

Activities organised in 2020:

#### Activity 1:



#### **Description:**

Dr. Jose Maria Carrillo Sanchez, offered a seminar on August 22, 2020 in order to guide young professionals on the requirements and procedures to be followed for the publication of their papers in this journal.

#### **Activity 2:**



#### Name of the activity

Google Earth Engine applied to water resources

#### Dates:

Saturday September 05, 2020 - 05:00 pm - 07:00 pm (GMT-05:00)

#### **Objectives:**

Demonstrative webinar about google earth engine platform.

#### **Description:**

Google Earth Engine combines a multipetabyte catalogue of satellite imagery and
geospatial datasets with planetary-scale
analysis capabilities and makes it available
for scientists, researchers, and developers to
detect changes, map trends, and quantify
differences on the Earth's surface. During
this webinar, César Aybar Camacho Saturday
spoke about its application to water
resources management.

#### Peru Young Professionals Network

#### 2020 Annual report of activities

#### **Activity 3:**



#### Name of the activity:

Computational fluid dynamics in the design optimization for hydraulic structures.

#### Dates:

Saturday September 12, 2020 - 10:00 am - 01:00 pm (GMT-05:00)

#### Objectives:

Webinar for strenghtening capacities and gaining knowledge about state-of-the-art optimization methods

#### Description

In this conference cycle three presentations were given related to Computational Fluid Dynamics and hydraulic structures modelling. The following topics were exposed:

Dr. Daniel Valero Huerta

Flow in hydraulic structures. Limitations and opportunities of computational fluid dynamics.

Harold Alvarez, Eng.

CFD Analysis of Hydraulic Structures with FIOW-3D: Desander.

Dr. Hans Sanchez Tueros

Hydraulic structure modeling with Iber.

#### Activity 4:



#### Name of the activity:

Reduction of leaks through active pressure control in potable water distribution networks.

#### Dates:

Friday, September 18, 2020 - 06:00 pm to 07:00 pm (GMT - 05:00).

**Objectives:** Webinar for strengthening capacities and gaining knowledge on the design and the optimization of potable water distribution networks

Description: Prof. Martin Jimenez gave a conference of approximately one hour where he explained the use of artificial intelligence for the active control of pressures in potable water distribution networks. MSc. Martin Jimenez Magaña is an expert in the optimization and numerical modeling of potable water supply systems, and this conference was an opportunity to share his gained experience with young professionals.

#### Activity 5:

Name of the activity:
FORUM FOR YOUNG PROFESSIONALS: " HYDRIC STRESS".

#### Peru Young Professionals Network

#### 2020 Annual report of activities



#### Dates:

Saturday, September 19, 2020 04:00 pm to 5:30 pm (GMT - 05:00)

#### **Objectives:**

Dialogue among young people to exchange experiences and national research related to the difficulties and solutions to water stress

#### **Description:**

In this virtual forum, the young investigators of the four networks exposed their works about problems and solutions to the hydric stress at national level, the exposed topics were:

- Analysis of droughts in the regulated system of the chili river watershed.
- Proposal of a system of amunas in response to hydric stress in the IIo and Moquegua river.
- Amunas as a solution to hydric stress in Lima.
- Efficiency in water treatment with electromagnetic resonance fields of very low frequency in corn crop using drip system irrigation.



#### Activity 6:



#### Name of the activity:

Webinar: Experimental and numerical studies of mud and debris flows

#### Dates:

Wednesday, September 23, 2020 - 06:00 pm to 07:00 pm (GMT - 05:00)

#### **Objectives:**

Webinar to share international and Peruvian experiences in the implementation of physical models in the laboratory and the development of numerical models in the mud and debris flows.

#### **Description:**

Dr. Samuel Quisca Astocahuana, expert in external geodynamic phenomena, gave a conference about national and international research about debris flows. And measures that are now being used for the prevention and risk mitigation for this flow.



#### **Activity 7:**



#### Name of the activity:

Webinar: Implementation of a combined hydraulic-hydrological model for flood risk assessment

#### Dates:

Friday, September 25, 2020 - 05:00 pm to 06:00 pm (GMT - 05:00)

#### Objectives:

Webinar for strengthening capabilities and the gaining knowledge on construction a hydraulic and hydrological model for the risk to floods prevention

#### Description

In this virtual seminar it was exposed about the prevention service in floods in France, and the preliminary hydrological and hydraulic modeling results of the study that is being developed by M. Sc. Alexander González Alfaro in France.



#### Activity 8:



#### Name of the activity:

Online conference: The cybernetic water balance

#### Dates:

Saturday September 26, 2020 - 10:00 am to 11:00 am (GMT - 05:00)

#### **Objectives:**

Webinar for strengthening capacities and gaining knowledge about water balance considering watershed wetting.

#### Description

The first part of this seminar focused on the importance of considering the watershed wetting for the calculation of the hydric balance. Dr. Victor Miguel Ponce, expert in hydrology and hydraulics, explained that the wetting concept was given by L'vovich (1979) and allowed obtaining a better water balance because the L'vovich method allows calculating the matrix of precipitation-runoff, surface run-off-flow, base-wetting-vaporization.

In the 2nd session of this seminar was explained how much water can be extracted from an aquifer without being sustainable, explaining that before the extraction of groundwater the vertical recharge must be evaluated using the L'vovich equations,



which are based on the hydrological equilibrium.

#### **Activity 9:**



#### Name of the activity:

Webinar: Modelling river water temperature as a sustainable ecological indicator (based on energy balance with SWAT tool)

#### Dates:

Wednesday October 14, 2020 - 05:00 pm to 06:00 pm (GMT - 05:00)

#### **Objectives:**

Webinar for strengthening capacities and gaining knowledge about the temperature modelling of water ways, which is influenced by different meteorological and hydrological factors and is dominant for river species health and biodiversity.

#### Description

In this seminar were commented about the importance of the river temperature, river water temperature modeling, energy balance, equilibrium temperature (ET) concept, ET implementation in model SWAT (SOIL WATER ASSESSMENT TOOL) and some results obtained with SWAT.

#### Activity 10:



#### Name of the activity:

Webinar: Numerical modelling applied to studies of maritime hydraulics and coastal processes.

#### Dates:

Sábado 17 de Octubre 2020 – 03:00 pm a 04:00 pm (GMT – 05:00)

#### **Objectives:**

Present numerical modeling tools that allow evaluating coastal processes

#### Description

The webinar showed the importance of knowing in detail the behavior of the waves to develop studies of sediment transport and design of structures, it is also important to carry out measurements in the field in order to validate the results of the numerical model.

#### Activity 11:

Name of the activity: Hydrogeological modeling of cadmium and BOD contamination due to the "Landspreading" technique in agricultural soils.

#### Peru Young Professionals Network

#### 2020 Annual report of activities



#### Dates:

Friday October 23, 2020 - 03:00 pm to 04:00 pm (GMT - 05:00)

#### **Objectives:**

Learn to interpret the files check.lis (MODFLOW) and output.mt3 (MT3D) to solve errors

#### Description

Presentation of the conceptual models to model groundwater flow and chemical processes, as well as show the usefulness of the program files

#### **Activity 12:**



Name of the activity: Training online course: Python and R programming applied to water resources

#### Dates:

Monday October 26, 2020 to the present.

Objectives: Provide tools and theoretical knowledge that allow students to improve their skills in programming in R and Python with applications related to water resources.

#### Description



Event organized by the leadership team of our YPN, dictated by our president with the support of the other members of the leadership team.

The course was aimed mainly at our members, however, we also had participants from other YPNs, as well as students related to the country and Latin America.

#### **Activity 13:**



#### Name of the activity:

Webinar: Channel Hydraulics with C++ and Python Languages.

#### Dates:

Saturday November 07, 2020 - 03:00 pm to 04:00 pm (GMT - 05:00)

#### Objectives:

Present the Hydraulics of Channels book

#### Description

Webinar focused on the book release of the speaker regarding to Hydraulics of Channels book that contains the most common equations and codes in languages such as: C ++, Python and Hpppl, to solve common problems.



#### Activity 14:



#### Name of the activity:

Conference cycle on glaciers and climate change

**Dates:** November 26, 27 and 28, 2020, from 5:00 pm-7:00pm

**Objectives:** Disseminate the importance of tropical glaciers and the problems they are facing due to climate change.

Give a space to researchers investigating the subject in order to increase the broadcasting of their work.

#### Description

Event organized in conjunction with other YPN that aimed to highlight the importance of tropical glaciers in Peru since it is the country that has 71% of them worldwide (INAIGEM 2018), also, it was considered important to inform about the possible scenarios that could traverse the glacial mountain ranges of Peru due to climate change and the risks that are currently occurring such as the Glacial Lake Outburst Flood.

#### Peru Young Professionals Network

#### 2020 Annual report of activities



Name of the activity: Informative Talk: Young Professionals Networks

#### Dates:

9 August 2020

#### Objectives:

Publicize the proposal of our YPN and extend the invitation to be part of us.

#### **Description:**

With the help of the page of the Peruvian Association of Hydraulic Engineering, we made our first invitation to the public to want to be part of our YPN IAHR network.

The objective was to make known both the objectives of the IAHR and those that we as a group will have.

#### 5. Partnerships and collaborations

Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership
Peruvian Association of	Presentation event of our network, where members were
Hydraulic and Environmental	recruited
Engineering (APIHA)	



#### **Collaboration with other YPNs**

YPN name	Description of collaboration
IAHR Pontificia Universidad Católica del Perú Young Professionals Network	It was developed with them, the event of a forum for young professionals with a theme to hydraulic stress (September 19th, 2020). It was developed together with them, the cycle of conferences on glaciers and climate change (November 26th, 2020).
IAHR Universidad Nacional Agraria La Molina CIDRHI Young Professionals Network	It was developed with them, the event of a forum for young professionals with a theme to hydraulic stress (September 19th, 2020 ). It was developed together with them, the cycle of conferences on glaciers and climate change (November 26th, 2020 ).
IAHR Universidad Peruana de Ciencias Aplicadas (UPC) CEDIARHMA's Young Professionals Network	It was developed with them, the event of a forum for young professionals with a theme to hydraulic stress (September 19th, 2020 ). It was developed together with them, the cycle of conferences on glaciers and climate change (November 26th, 2020 ).
IAHR Universidad Nacional de Ingeniería- GEAHH-Young Professionals Network	It was developed together with them, the cycle of conferences on glaciers and climate change (November 26th, 2020 ).
IAHR UTEC Water and Environmental Research Young Professionals Network	It was developed together with them, the cycle of conferences on glaciers and climate change (November 26th, 2020 ).

#### 6. Contributing to the strategic plan

7.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (<a href="https://www.iahr.org/index/detail/101">https://www.iahr.org/index/detail/101</a>)

Our events have been very well received internationally, proof of them are the successful numbers that we got through our social networks despite the 4 months that we have been as a group, this reception was achieved due to the high academic quality of the guests that we had, with which we are quite grateful for their time.

Likewise, at the local level we have had multiple comments from people from the interior of our country (Peru) who write to us wanting to participate or learn more about our activities,



with whom we are trying to provide new spaces with which we can interact, such as reading clubs of scientific articles or short interviews with students and professionals who want to share their experiences.

Our goal is to be able to make more scientific production, likewise, to inspire the people who observe us to dedicate themselves to the investigation of the multiple topics that have been presented throughout all the activities, this will be a more difficult goal to achieve in the long term. This aim has not yet been finalized due to the short created time that we have.

Our group will always be interested in disseminating research on environmental issues and those involving water, so we feel that we are on track and related to the vision and institutional strategic plan of the IAHR and we will continue to do so in the future.

7.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

Despite our short operating time, we have been quite active through various events held both on our part and in coordination with other YPNs in our country. Our approach has always been to publicize the contributions in our fields of study made by multiple researchers in our country, especially those from the interior of the country who do not have the media to support them.

One of the main objectives of our group is to give a voice to researchers from universities that do not have a YPN or that do not have access to a broadcast channel with a greater number of possible recipients such as our social networks or IAHR's pages.

Likewise, we have held online events in which we have had the participation of people involved in the IAHR from other countries such as Mexico and Spain, with which we are quite grateful, the topics that have been dictated through our events have had a great level in the academic aspect, proof of the quality of the presentations is the great reception that our events have had by the public from other Latin American countries such as Chile, Paraguay, Ecuador, Brazil, Argentina, among others.

Our group aims to continue holding events that facilitate cooperation with other groups involved in water resources and the environment, either with other YPN networks or with associations related to the issue at the national and international level, all without neglecting the growth of our own members.

### IAHR Pontificia Universidad Católica del Perú Young Professionals Network

2020 Annual Report of Activities





### IAHR Pontificia Universidad Católica del Perú Young Professionals Network

#### **2020ual Report of Activities**

#### 1. Introduction

We are an interdisciplinary team made up of PUCP undergraduate students dedicated to the dissemination of knowledge from the field of hydroenvironmental sciences to the academic community. The group was born from the need to have a space in which young university students interested in deepening their knowledge related to the environment and water resources can be brought together, which at first belonged only to engineering careers, but later it was opened towards different specialties since the subject of study involves an analysis from different perspectives.

#### 2. 2020 main goal and key objectives

The main objective of GEMRA in 2020 was to digitize all the activities and projects that were planned for the year before the COVID situation passes. Likewise, we had to eliminate several physical projects and promote various digital projects such as the creation of a blog and promote our networks such as instagram and youtube.

#### 3. Activities

#### **Activity 1**



Name of the activity

Take care of your beach

**Dates** 

7<sup>th</sup> March

Objectives

About ambiental and water issues

Description

the event consists of a cleaning of two beaches in lima. It seeks to sensitize participants regarding the environmental impacts on the beaches through cleaning

#### **Activity 2**



Name of the activity GEMRA Hydro-Environmental Videoconference

Dates 23<sup>rd</sup> May

Objectives

Raising awareness about hydro-ambiental to the public

Description

Event organized with the purpose of promote hydro-environmental knowledge through two conferences

#### **Activity 3**



Name of the activity

YPN discussion: dams and connectivity in Amazon rivers

Dates 1<sup>st</sup> July

Objectives

Raising awareness about hydro-ambiental issues to the public

Description

event held with the purpose of offering a complete concept regarding dams in the rivers through a discussion in which four professionals specialized in different student areas participated

#### **Activity 4**

Name of the activity
Forest Fires: Causes and impact on the environment

# Pontificia Universidad Católica del Perú Young Professionals Network

#### 2020 Annual report of activities



#### Dates

10<sup>th</sup> October

#### Objectives

Raising awareness about forest fire issues to the public

#### Description

The event consists of a discussion held by two professionals in the environmental field, in the event the cause and consequences of forest fires are discussed through presentations and a debate between professionals. It also culminates with a round of questions where the public's doubts are cleared

#### **Activity 5**



#### Name of the activity

"Tantanakuy: 1st congress GEMRA"

#### Dates

3-7 November

#### Objectives

Raising awareness about human activity issues

#### Description

The congress consists of 4 days of lectures and a day of mini colloquium. 7 student associations and 2 companies linked to the environmental care sector were invited to the event. The presentations were made by the invited associations and Gemra, a space of 1 hour and a half was provided for the speakers to explain their issue related to the impact on the environment and answer the doubts of the public. The mini colloquium was carried out by student members of GEMRA where each one presented their topic and ended in a debate.

# Pontificia Universidad Católica del Perú Young Professionals Network

#### 2020 Annual report of activities

#### 4. Partnerships and collaborations

Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership
-	

#### Collaboration with other YPNs

YPN name	Description of collaboration
CEDIARHMA UPC	"Conversatorio: Presas y conectividad en ríos amazónicos" & "Ciclo de conferencias en Glaciares y Cambio climático".
GEAHH UNI	"Conversatorio: Presas y conectividad en ríos amazónicos" & "Ciclo de conferencias en Glaciares y Cambio climático".
WER YPN UTEC	"Conversatorio: Presas y conectividad en ríos amazónicos" & "Ciclo de conferencias en Glaciares y Cambio climático".
RIAGU	"Ciclo de conferencias en Glaciares y Cambio climático"
CIDRHI UNALM	"Conversatorio: Presas y conectividad en ríos amazónicos" & "Ciclo de conferencias en Glaciares y Cambio climático".

#### 5. Contributing to the strategic plan

7.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (<a href="https://www.iahr.org/index/detail/101">https://www.iahr.org/index/detail/101</a>)

Regarding the activities that our association has carried out, we comply with the vision and strategy of the IAHR in terms of the following aspects:

- We have held at least one event each month, which take advantage of and amplify the collective knowledge of the global hydro-environmental community.
- Being events carried out via ZOOM, a global platform is generated. We have had people from various countries other than Peru at our events, such as Ecuador, El Salvador, Nicaragua, etc.
- All our events have had professional and knowledgeable guests. Likewise, we have encouraged our members to present their work to the academic community in our colloquia.

## Pontificia Universidad Católica del Perú Young Professionals Network

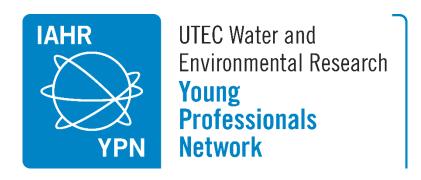
#### 2020 Annual report of activities

#### 7.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

Our YPN contributes to the objectives of the IAHR by bringing together several engineers from all around the country and students in a single space. In this space it is possible to share and learn about hydro-environmental issues, and a space for dialogue and creation is generated. Our members have been able to make several short and long articles. Likewise, we have tried to share information in a friendly way through our networks, through short videos and information. Finally, we have the commitment of all our members to continue improving every day and to be excellent representatives of the association.

## IAHR UTEC Water and Environmental Research Young Professionals Network

2020 Annual Report of Activities





### IAHR UTEC Water and Environmental Research Young Professionals Network

#### **2020 Annual Report of Activities**

#### 1. Introduction

IAHR UTEC Water and Environmental Research YPN was born in 2018 with the goal to channel the interests of students and young professionals in environmental issues, through academic and recreational activities, as well as research projects. The YPN chapter started out with 20 members, all of them from an undergraduate program at UTEC, mainly from the environmental engineering department. Nowadays, the members are from different undergraduate engineering programs and are more involved in the direction and organization of the YPN, sharing the same intereses and knowledge from one peer to another. The organization is divided into 4 subdivisions: Research, Academic Activities and Sustainability, Social Activities and Citizen Science.

#### 2. 2020 main goal and key objectives

The main objective for the 2020 period was to achieve an effective adaptation of our face-to-face activities and meetings, to a digital format, giving emphasis to online academic activities and social media publications. Other important goals were to identify and establish an active schedule to ensure the continuity of academic and recreational activities, to increase the number of active members of the organization and prepare the actual members for the directive translation in 2021, and to develop activities in conjunction with other YPNs in Peru and Latin America. Also, the development of an area within the organization related to social responsibility and citizen science was an important objective.

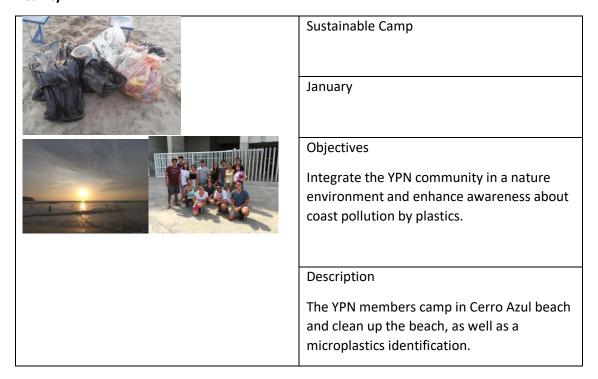
#### 3. Communications

Newsletter/s	None
Publication/s	Two (2) articles in the 1st IAHR Young Professional Congress:  - Initial development of a citizen science-based river flood monitoring and forecasting for the Rimac river in Lima Peru - Initial findings of microplastics concentration in three coastal
	environments: A case study in the Peruvian coast

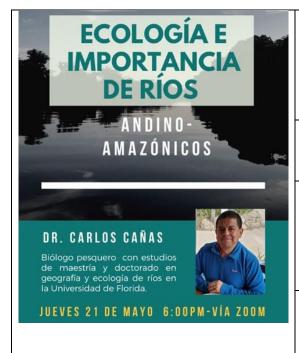
Other	Diverse Information Posts available on
	Instagram
	<ul> <li>Earth week</li> <li>Eutrophication</li> <li>Glaciers and gloffs</li> <li>Evapotranspiration</li> <li>Atmospheric gases</li> <li>Underground water</li> <li>Global warming, climate change and greenhouse effect</li> <li>Myth of Amazonian uniformity</li> <li>The Rímac river</li> <li>Amazon connectivity</li> <li>Microplastics</li> <li>Wetlands</li> <li>Escazú Agreement</li> <li>Impact of the amunas</li> </ul>

#### 4. Activities

## **Activity 1**



#### **Activity 2**



Ecology and Andean Amazonian Rives Importance

Thursday 21st of may

Objectives

Raising knowledge about the importance of water systems ecology.

Description

Online webinar with an ecologist, who talks about andean amazonian rivers and why they are important for the ecology. Also, show the anthropogenic impacts in the rivers connectivity and how it affects local biology.

#### **Activity 3**

Dancing Rivers of the Peruvian Amazon
Wednesday 3rd of June
Objectives  Delivering opportunities for research and useful information.

# UTEC Water and Environmental Research Young Professionals Network

# 2020 Annual report of activities



#### Description

Online webinar with the Water Research and Technology Center (CITA-UTEC) and publicize their new platform (https://www.dancingrivers.com/), where information about 4 Peruvian amazon rivers and the science behind this movement are displayed in order to understand their physical dynamic.

#### **Activity 4**



Water dams and amazonian river connectivity

1st of July

#### Objectives

Raising awareness about water issues and the impact of dams in the amazonian connectivity.

#### Description

Four (4) expositors were invited for giving their different points of view about the dams in the Amazon basin, and their impacts or benefits for the connectivity, ecology and energy in a discussion panel.

# IAHR UTEC Water and Environmental Research Young Professionals Network

# 2020 Annual report of activities

#### **Activity 5**



Questions and Answers about the Environmental Engineering career at UTEC

Saturday 27th of June

#### Objectives

Motivating membership for new environmental engineer students.

#### Description

All YPN members respond to questions about the career, the organization and professional development from new undergraduate students.

#### **Activity 6**



Sustainable Quarantine Challenge

27th April

#### Objectives

Raising awareness about sustainable lifestyle in the pandemic context.

#### Description

The challenge consists of uploading photos or videos about their daily activities in quarantine that protects the environment for a sustainable quarantine.

# IAHR UTEC Water and Environmental Research Young Professionals Network

# 2020 Annual report of activities

#### **Activity 7**



Escazú Agreement

Wednesday 16th of September

#### Objectives

Inform about a new Latin America agreement in discussion.

#### Description

Online webinar to give information about the politics of the new agreement, their applicability in a future sustainable development and a discussion about the Agreement.

#### **Activity 8**



Agents of Impact, conservation and wetlands management in Perú

Wednesday 14th of October

#### Objectives

Raising awareness about conservation and status of Peruvian wetlands.

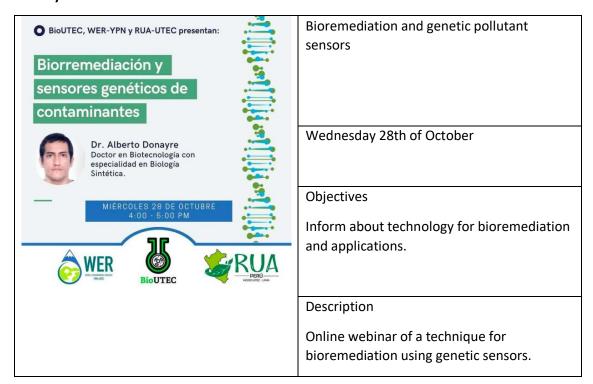
#### Description

Online webinar for informing students and the population about the critical status of some wetlands in Peru and future



perspectives management for their conservation.

#### **Activity 9**



#### **Activity 10**

Introduction to drinking water treatment
Saturday 7 of November
Objectives  Raising awareness about the importance of water treatment in Peru.





#### Description

Online webinar with the Lima municipality to educate children and adults in terms of drinking water treatment.

#### **Activity 11**



IAHR UTEC WER YPN Presentation to new students entering the university

7th of November

#### Objectives

Motivating new students to join the organization

#### Description

Online presentation of activities and division in the organization for new undergraduate students.

#### **Activity 12**



Greenhouse effect, global warming and climate change

Saturday 14th of November

Objectives

Raising awareness about climate change and the different related concepts.

Description

Online webinar with the Lima municipality to educate children and adults in terms of climate change, carbon footprint, global warming and greenhouse effect.

#### **Activity 13**

Conference: Glaciers and Climate Change

26-28th of November

Objectives

Raising awareness about glaciers and the impact of climate change.

# UTEC Water and Environmental Research Young Professionals Network

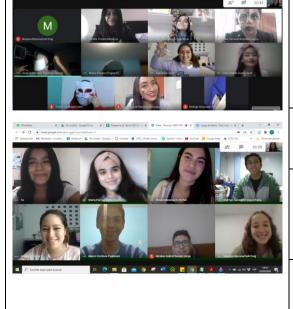
# 2020 Annual report of activities



Description

Online conferences with six (6) other Peruvian YPNs for three days to expose experts research in the field.

#### **Activity 14**



Periodic Meetings with the IAHR UTEC WER YPN team

Every saturday at 8:00 pm

Objectives

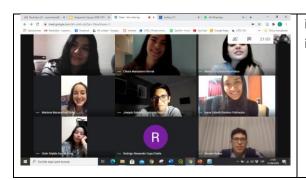
Motivating YPN member

Description

Online weekly meetings with all the YPN members to organize new activities,

# UTEC Water and Environmental Research Young Professionals Network

# 2020 Annual report of activities



integrate the new members and share intereses and experiences.

#### 5. Partnerships and collaborations

Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership
AICHE UTEC	AICHE UTEC is a chemistry student organisation that
	invited our members to participate on the K-12 project.
RUA UTEC	Development of academic activities related to
	environmental goals in the K-12 project. Two
	presentations were organized and thought online.
BIOUTEC	Development of a presentation about bioremediation.
	The partnership will continue with 3 more presentations.
CITA- Centro de Investigación y	Both organisations planned the second activity of the
Tecnología del Agua	year. The presentation had four speakers that work at
	CITA with the aim to introduce the "Dancing River"
	Platform.
Municipalidad de Lima	An alliance was made in order to participate in the STEAM
	Hour program, that the municipality broadcasted. This
	was organized because of the K-12 project.

#### **Collaboration with other YPNs**

In this year 2020 an alliance has been formulated with the vast majority of the YPNs (Mentioned below) at a national level. Two activities were organized by this alliance, one of them was a conference that lasted three days aiming to inform the public about Glaciers and Climate Change.

Description of collaboration
Organization, diffusion, and presentation of
the activity : Water dams and amazonian
(



IAHR Universidad Nacional Agraria La Molina CIDRHI Young Professionals Network  IAHR Universidad Nacional de Ingeniería- GEAHH-Young Professionals Network  IAHR Universidad Nacional Mayor de San Marcos Young Professionals Network	river connectivity. One of the expositors of the activity was proposed by the organization (IAHR UTEC WER YPN).  Members of the organization participated as moderators.  Participation in the Conference: Glaciers and Climate Change. One of the expositors of the activity was proposed by the organization.  Members of the organization participated by giving introductions and conclusions.
IAHR Universidad Peruana de Ciencias Aplicadas (UPC) CEDIARHMA's Young Professionals Network  IAHR Peru Young Professionals Network	Participation in the Conference: Glaciers and Climate Change. One of the expositors of the activity was proposed by the organization.  Members of the organization participated by giving introductions and conclusions.

#### 6. Contributing to the strategic plan

7.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (<a href="https://www.iahr.org/index/detail/101">https://www.iahr.org/index/detail/101</a>)

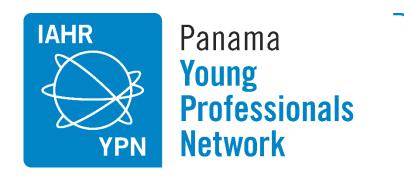
Water and Environmental Research YPN is committed to amplifying the collective knowledge of the global Hydro-Environment community in other students, professionals and population in general with the online webinars about important issues that happen in Peru in terms of water systems and environment. In addition, the organization is interested in inspiring and disseminating knowledge to everyone who wants to listen, as an example we aim to educate children in water resources with the new Citizen Science division. For the organization it is very important to give a great member experience and develop a network with other YPNs in Peru for organizing events and networking with new professionals in the field of water management and environment.

7.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

The YPN is committed to networking and sharing experiences from our members, collaborates and pairs with neighboring YPNs, and receives training and opportunities for mentoring from other professionals. And most importantly, to communicate all the knowledge and information to others for raising awareness and motivated them in research and sustainability.

# IAHR Panamá Young Professionals Network

2020 Annual Report of Activities





# IAHR Panama Young Professionals Network

### 2020 Annual Report of Activities

#### 1. Introduction

IAHR Panama YPN was founded by a group of young professionals with the aim to organize the YPN during the 38<sup>th</sup> IAHR World Congress held in Panama in September 2019. Since then, the group has organized and has been very active promoting and organizing activities both locally in Panama and regionally in Latin America.

The chapter's mission is to promote the development of technical capacities in the general field of hydro-environmental sciences (water, environment and renewable energies) in students and young professionals, and to influence through interdisciplinary scientific research in Panamanian society to achieve a more resilient and sustainable country.

The groups vision is to become a national reference in the field of hydro-environmental sciences (water, environment and renewable energies) for the design of sustainable solutions through a holistic and interdisciplinary approach, through the Panamanian professional youth, including universities, public and private sectors.

#### 2. 2020 main goal and key objectives

The main objective for our first year with YPN has been to 1) Publicize the chapter and recruit new members, 2) Engage our members through social media and virtual events, and 3) Provide training to young professionals and university students.

For training we have focused on capacity building on different tools, technical concepts and international trends in order to enhance our member's professional profiles and help them become agents of change on water and environmental issues.

Considering that the expectation is that all trends in the global system will continue to increase intensely in the short and medium term, the basic question is whether the type of training we continue to provide in engineering schools and faculties is adequate<sup>1</sup>. The problem is addressed methodologically based on the three dimensions of knowledge recognized by the Carnegie Foundation for the training of professionals: cognitive learning, practical learning and moral learning<sup>2</sup>. Based on this, in IAHR Panama YPN we seek to influence the formation and different types of learning of our members and the community of which we are a part.

<sup>&</sup>lt;sup>1</sup> Vega-González Luis Roberto. La educación en ingeniería en el contexto global: propuesta para la formación de ingenieros en el primer cuarto del Siglo XXI.

<sup>&</sup>lt;sup>2</sup> Sheppard D.S., Macatangay K., Colby A., William W.M. Educating Engineers: Designing for the Future of the Field. The Carniegie Foundation for the Advancement of Teaching, Jossey-Bass, Wiley, 2009.



#### 3. Communications

#### 3.1. Social Media

Website	
Facebook	https://www.facebook.com/YPNPanama
Twitter	https://twitter.com/ypnpanama
Instagram	https://www.instagram.com/ypnpanama/
Linkedin	
Other	

#### 3.2. Promotional and Information Materials

Newsletter(s)	Past Issues <a href="https://us3.campaign-archive.com/home/?u=8a7f455e4c7a7052b832bc450&amp;id=0325dc18e3">https://us3.campaign-archive.com/home/?u=8a7f455e4c7a7052b832bc450&amp;id=0325dc18e3</a>
Publication(s)	First General Meeting https://www.instagram.com/p/CBen8AoBKT5/?utm_source=ig web_copy_link  Second General Meeting https://www.instagram.com/p/CE2TVnahb7e/?utm_source=ig web_copy_link  Scientific Initiation Workshop https://www.instagram.com/p/CCo7va- hvvp/?utm_source=ig_web_copy_link  Instagram Live Talk Show "Agua y Café" https://www.instagram.com/p/CAawu0YHuPM/?utm_source=ig_web_copy_link
Other	

# Panama Young Professionals

Network

# 2020 Annual report of activities

#### 4. Activities

#### **Activity 1**



#### Name of the activity

IAHR Panama Young Professionals Network First (and only) in person General Meeting

#### Date(s)

October 26<sup>th</sup>, 2019

#### **Objectives**

To publicize IAHR Panama YPN and motivate students and young professionals to join.

#### Description

The meeting consisted of two parts: Firstly, general information about IAHR Panama YPN was given and the members of the Board of Directors were presented. Then an IKIGAI workshop was delivered by an invited speaker.

#### **Activity 2**



#### Name of the activity

Agua y Cafe

#### Date(s)

From March 21st, 2020 to Present (biweekly interviews).

#### **Objectives**

Transmit scientific and/or applied knowledge to the general community of the Instagram digital platform.

#### Description

Instagram Live series, every two Thursdays at 2:00 p.m., where we interview professionals (including professionals in training), in the water sector. So far 19 interviews have been conducted.

#### **Activity 3**

## Name of the activity

Scientific Initiation Workshop

#### Date(s)

July 15th, 2020

#### **Objectives**

# Panama Young Professionals Network

## 2020 Annual report of activities



Showcase the importance of scientific and applied research and motivate students and young professionals to engage in research projects.

#### Description

The virtual workshop consisted of a short presentation and a roundtable and Q/A session with our invited speakers:

- Pablo Spalletti, President of the Latin American Division of IAHR
- Dr. Ariel Grey, Director of the research group GIZMACOPOR at the Technological University of Panama
- Claribel Buenaño, PhD candidate in Microbiology and Environmental Sciences at NUI Galway.
- Carlos Lu, Engineer at the Hydraulic Engineering Unit of the Panama Canal Authority.

There were 125 participants from 5 countries of whom 64% were students.

#### **Activity 4**



#### Name of the activity

Webinar about the Development and Verification of a Numerical Wave Model at the Coastal Engineering Laboratory of the Polytechnic of Bari, Italy

#### Date(s)

September 26<sup>th</sup>, 2020

#### **Objectives**

To show the IAHR Panama YPN members and the community in general the conclusions of the research project that our adviser, Dr. Lucas Calvo, conducted at the Politecnico di Bari in Italy and its application in our country.

#### Description

Dr. Lucas Calvo presented the results and conclusions from the project he developed during his academic visit at Politecnico di Bari about numerical methods for wave simulations.



#### **Other Activities**

During 2020 we have organized three virtual meetings (March, June, and September) for both members and non-members where we have promoted membership of our chapter. We had a period of inscriptions after the meetings in June and September and currently have 58 members in our chapter, out of which 12 are Non IAHR Members.

#### 5. Partnerships and collaborations

#### 5.1. Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership
Ciencia en Panamá	Ciencia en Panamá is an independent organization whose objective is to popularize science in Panama and promote the development of public policies based on scientific evidence. Our president, Maria Gabriela Castrellón, regularly attends their meeting and is a member of the Environment Task Force. We promote each other's activities and events on social media and have participated in their virtual events such as the virtual march for science in April 2020.
Autoridad del Canal de Panamá (Panama Canal Authority)	Since the inauguration of our chapter we have received support from the Panama Canal Authority (ACP), especially from Ilya Espino de Marotta, its Deputy Administrator. She participated as an invited speaker during our inauguration event and recently sent us a video congratulating us for our first anniversary.
Eco Ideas	With Eco Ideas we share the vision to help Panama become a more sustainable and resilient country. Their activities focus on creating awareness so people can make more sustainable choices in their everyday lives. For instance, on December 19 <sup>th</sup> they have a webinar titled "Can fashion be sustainable?" which will include topics from the SDGs 8, 9, 10 and 12. We partnered with them to promote their webinars and events like this one through our social media platforms.
The U for You	The U for You represents international universities in Panama, promotes higher education abroad and advises students during the undergraduate and postgraduate application process. It is our aim that

# Panama Young Professionals Network

## 2020 Annual report of activities

#### 5.2. Collaboration with other YPNs

YPN Name	Description of collaboration
YPN Iberoamérica	Connected with YPN Chapters from Latin America and
	Spain to create a joint task force.
IAHR Spain YPN	Interview with Dr. José María Carillo in Agua y Café
	where he talked about his experience as a researcher
	in the field of computational hydraulics.
IAHR Venezuela YPN	Interview with Karol Sánchez in Agua y Café where
	she talked about female leadership and how bridge
	to the gap between men and women in leadership
	positions.

#### 6. Contributing to the strategic plan

# 6.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan

IAHR's strategic plan is based on 4 fundamental pillars:

- a) To provide a world-class networking platform and expertise to its members.
- b) To inspire, disseminate and catalyse the state of the art of knowledge and thought.
- c) To institute events that set agendas, leverage, and amplify the collective knowledge of the global hydro-environmental community.
- d) To act as a global voice on behalf of the engineering industry and the Hydro-Environmental research community

Starting from this premise, IAHR Panama YPN has developed the activities mentioned in the previous points, always seeking to communicate technical and scientific information to our members and the general community. In spite of the difficulties brought about the COVID-19 pandemic, our Board of Directors and the membership have managed to carry out these activities and events in a satisfactory manner.

We are convinced that based on these pillars, and our lines of action (communication, research, and training), we will continue to contribute to the strategic plan and vision of the IAHR.



#### 6.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

We want to ensure that our members have the best experience within the group, that they have a voice and a vote, and that they feel part of a prestigious community at the scientific and technical level, with professionals who are experts in different areas of knowledge in hydro-sciences. We strive to create a place of connection and networking, especially between students or young professionals with senior professionals, so the former have guidance and mentorship in their field of their interest. In addition, we want students and young professionals to have the necessary tools to face the challenges of a changing world; to develop their resilience, their potential, so they are able to analyse current issues and provide holistic solutions. These are desirable characteristics in any professional, and are the result of the interaction, support and constant updating of our members, which is what we have on worked since the beginning of our chapter and it is something we strive to keep doing in the years to come. We believe that through our capacity building and networking activities and based on our established lines of work (water, environment and renewable energy), we will continue to contribute at the highest level to the organization.



# IAHR Venezuela Young Professionals Network

2020 Annual Report of Activities





# IAHR Venezuela Young Professionals Network 2020 Annual Report of Activities

#### 1. Introduction

Officially created the May 6, 2019, the YPN Venezuela is composed by 12 members (11 young professionals and 1 student) all professionals in the hydro-environment engineering sector. Due to complex conditions in our home country, some of us are currently living in different regions of the world (Argentina, Ecuador, France, Peru, Sweden and Venezuela). This particularity of our YPN makes it an innovative initiative that seeks to adapt to today's challenges and enables us to strengthen our links as young Venezuelan professionals living around the world. The creation of the YPN Venezuela is a great opportunity for us to stay connected to the hydro-environment sector worldwide and also provides us with many advantages to continue our professional development. All the members of the YPN Venezuela are honored to be a part of the IAHR and are look forward to contribute to the development of the IAHR YPN community.

#### 2. Main goal and key objectives for 2020

Creation of the weekly web-seminar "Conversaciones Fluidas"

#### 3. Communications

[Website and social networks]

Website	https://www.iahr.org/index/committe/77
Facebook	-
Twitter	@YPNVenezuela
Instagram	@ypnvenezuela
LinkedIn	https://www.linkedin.com/company/iahr-
	ypn-venezuela
YouTube channel	https://www.youtube.com/channel/UC3r7l9
	8XZCecdA_1smVjr_Q



#### 4. Activities

[Activities organised in 2020]

#### **Activity 1**



"Conversaciones Fluidas 1"

# https://www.youtube.com/watch?v=hxVbm WQc5b4&t=37s

September 1st, 2020

"Fluid Conversations" is an entertaining space of relevant technical information, aimed at students, professionals, academics and the public related to the water sector. It is broadcasted every first tuesday of the month and it consists on an interactive Webinar focused on diverse topics involving national and international professionals in the area.

Prof. María Virginia Najul Saldivia "To have drinking water ... We must protect our water bodies"



#### **Activity 2**



"Conversaciones Fluidas 2"

https://www.youtube.com/watch?v=zEFkbG2M5HE&t =18s

October 6th, 2020

"Fluid Conversations" is an entertaining space of relevant technical information, aimed at students, professionals, academics and the public related to the water sector. It is broadcasted every first tuesday of the month and it consists on an interactive Webinar focused on diverse topics involving national and international professionals in the area.

Ing. Celso Castro Bolinaga

"Propagation of sediment pulses in rivers associated with dams removals: Challenges and opportunities"



#### **Activity 3**







"Conversaciones Fluidas 3" Special edition - Valencia Lake

https://www.youtube.com/watch?v=-7PP1nuR-g4

https://www.youtube.com/watch?v=BRQKPUsl Kq4

#### November 3rd and 4th, 2020

"Fluid Conversations" is an entertaining space of relevant technical information, aimed at students, professionals, academics and the public related to the water sector. It is broadcasted every first tuesday of the month and it consists on an interactive Webinar focused on diverse topics involving national and international professionals in the area.

Eng. Agr. Pedro García, Eng. Gian Franco Morasutti, Eng. Rafael Dautan, Eng. Mark Lansdell, Eng. Manuel Pérez Rodríguez, Eng. Horacio Velasco and Eng. Gustavo Rivas Castillo. "Case study: Valencia Lake's problem from an integrated, hydraulic, sanitary, and environmental point of view"



#### **Activity 4**



"Conversaciones Fluidas 4"

#### December 1st, 2020

"Fluid Conversations" is an entertaining space of relevant technical information, aimed at students, professionals, academics and the public related to the water sector. It is broadcasted every first tuesday of the month and it consists on an interactive Webinar focused on diverse topics involving national and international professionals in the area.

Eng. Reinaldo Garcia and Eng. Jacinto Artigas.

"Advances in the two-dimensional modelling of integrated hydrological and hydraulic processes through high performance computing and geographic information systems"

#### 7. Partnerships and collaborations

Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership		
SIHV	Venezuelan Society of Hydraulic Engineering.		
	Participation in an episode of "Conversaciones Fluidas"		

#### Collaboration with other YPNs

YPN name	Description of collaboration
Panama YPN	"Agua y Cafe" Karol Sánchez's Interview  https://www.instagram.com/p/CEr8nVsFKYT /

# Venezuela Young Professionals Network

### 2020 Annual report of activities

#### 8. Contributing to the strategic plan

7.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (https://www.iahr.org/index/detail/101)

"Conversaciones fluidas" it is aligned with the following pillars of the strategic plan:

- Inspire, disseminate and catalyse state-of-the-art knowledge and thinking.
- Institute events that set agendas, harness and amplify the collective knowledge of the global Hydro-Environment community.

#### 7.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

Veronica Leon, member and treasurer of the YPN Venezuela, is leading since November 2020 the project "IAHR Women's Voices" in collaboration with the IAHR task force on Strengthening Gender Equity and the IAHR secretariat in Madrid.

The Women's Voices video series provides the opportunity to IAHR women members to introduce themselves and their background, explain why it is important to them to work in the hydro-environmental field, the challenges they are confronted with, and reflect about specific research topics or actual events such as COVID-19, floods, droughts, the world congress, etc. (https://iahr.org/index/detail/245)

Prof. Arturo Marcano, Veronica Leon and Ingrid Silva, members of the YPN Venezuela, participated as chairs in the IAHR "International conference on river morphology and flood control Piura River — Peru" on 19-20 November 2020. This was a great opportunity for the members of our YPN to work in collaboration with the IAHR community.

# IAHR Portugal Young Professionals Network

2020 Annual Report of Activities





# IAHR Portugal Young Professionals Network

# **2020 Annual Report of Activities**

#### 1. Introduction

The Portugal Young Professionals Network (Portugal YPN) of the International Association for Hydro-Environment Engineering and Research (IAHR) has a mission to foster the relationships between young students, researchers and professional engineers interested in sharing experiences and knowledge in the field of hydro-environment engineering and research. In times when young professionals are challenged every day, Portugal YPN aims to help young professionals to boost their early career, increasing their skills and their network of contacts.

Portugal YPN was born as a group of young professionals and researchers among members. In the year of 2014, at the 3<sup>rd</sup> Europe Congress of IAHR, in Faculdade de Engenharia da Universidade do Porto, the first milestone was placed. In a meeting organised by the IAHR top members and with the collaboration of Universidade de Coimbra, the decision to create a Portuguese YPN was made. At the beginning of 2015, IAHR Portugal YPN was born with a group of young professionals aiming to provide their contribution in the field of hydroenvironment engineering and research, also seeking a generalized improvement of their society's value.

#### 2. 2020 main goal and key objectives

The 2020 main goal was to increase the visibility of the IAHR-PT-YPN and the engagement between academia researchers and industry engineers in Portugal. The key objectives were established taking into account the restrictions caused by Covid-19 outbreak and adjusted to this new reality. Four key objectives were defined as follows:

- 1. Propose an amendment to the current by-laws and to present them to its members for voting in a General Assembly, after approval by the IAHR.
- 2. Improve communication networks including the development of 2 newsletters, the publication of 6 opinion articles, the growth of social media networks and the updating of the website.
- 3. Increase the number of memberships by 30% (6 new members).
- 4. Develop partnerships with research units and universities, engineering and modelling companies and other organizations.

# Portugal Young Professionals Network

# 2020 Annual report of activities

#### 3. Communications

Website	http://iahrportugal.org/
Facebook	https://www.facebook.com/portugal.ypn.iahr
Twitter	https://twitter.com/portugalypniahr
Instagram	N/A
Linkedin	https://www.linkedin.com/company/pt-ypn-iahr
Other	N/A

<u>Facebook</u> – Statistics from 01 January 2020 until 31 October 2020:

- More 22 new followers (increase of 13%).
- 12 post.

<u>Twitter</u> – Launched on April of 2020, statistics until October of 2020:

- 34 followers.
- 10 tweets.
- July was the best month with 962 impressions.

<u>LinkedIn</u> – Statistics from 01 January 2020 until 31 October 2020:

- More 171 new followers (increase of 78.8%).
- 14 posts.
- 527 views (increase of 43%).
- Engagement rate of 7.15%.
- Visitors were mainly from Portugal and engineers.

Newsletter/s	Newsletter January 2020/1 ( <u>Link</u> )
	Newsletter October 2020/2 ( <u>Link</u> )
Publication/s	N/A
Other	<ul> <li>Opinion Article "The Future of Water • Sector Challenges and the Role of Engineers" by Jorge Cardoso Gonçalves (Link)</li> <li>Opinion Article "Mobility in Education and Professional Development" by David Ferras (Link)</li> <li>Opinion Article "A Sea of Opportunities for Young Professionals" by Guilherme Paredes (Link)</li> <li>Opinion Article "Am I a Researcher or an Engineer?" by Mariana Simão (Link)</li> </ul>



#### 4. Activities

#### **Activity 1:**



General Member Assembly

11/05/2020

Present the main results of the 2019/2020 mandate, present the new objectives for the 2020/2021 mandate, discuss the future of the PT YPN, get to know the members better.

The IAHR PT YPN developed its first General Member Assembly for presenting the main results of the 2019/2020 mandate and the new objectives for the 2020/2021 mandate. Afterwards, the 9 members present in the Assembly started a discussion regarding the future of the Association and its position within the Portuguese hydraulics and environment ecosystem (universities, industry companies, and associations) as well as the path to follow in order to achieve its major objectives. The Executive Committee fully appreciates the contributions given by all members. The minute of the General Assembly may be consulted in the following link.

#### **Activity 2**



Reflection Session from the perspective: "What Strategy for the Articulation of Water Services with Water Resources"

17/07/2020

Raising awareness about water issues, allow young people to play a role in the national strategic plan.



IAHR PT YPN participated in the Reflection Session with proposals, suggestions and recommendations from young professionals. This session was organized by APRH, which belongs to the PENSAARP 2030 Consultative Committee. The video of this session can be watched at the following <a href="mailto:link.">link</a>.

#### **Activity 3**



Online Session: "Water Policy in Portugal: What Strategic Vision for the Future?"

07/10/2020

Raising awareness about water issues, promote the Association.

IAHR PT YPN participated during the debate of this online session with questions and suggestions. This online session was organized by APRH, within the scope of the 15° Congresso da Água. The video of this session can be watched at the following link.

# Portugal Young Professionals Network

# 2020 Annual report of activities

## 5. Partnerships and collaborations

Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership
APRH – Associação Portuguesa	APRH is the Portuguesese Association of Water Resources
de Recursos Hídricos	and pretends to promote multisectoral and
	interdisciplinary treatment of water problems, and is a
	forum for professionals of various training and fields of
	activity linked to water resources. A Partnership was
	establish with the objectives of:
	- Promote and collaborate in the development of events
	and joint activities between the parties;
	- Promote the dissemination of activities, scientific and
	industrial literacy and opinion articles;
	- Promote the participation of both associations members
	in activities developed by each party;
	- Promote other forms of cooperation that are not
	envisaged in the present Agreement.
	The IAHR Portugal YPN has participated in several
	initiatives with the APRH this year, namely in the
	discussion of the Portuguese 2030 Water Supply and
	Sewage Strategic Plan.

IHRH – FEUP: Instituto de Hidráulica e Recursos Hídricos da Faculdade de Engenharia da Universidade do Porto	IHRH is the Institute of Hydraulics and Water resources of a leading Portuguese engineering school that develops research and consultancy services. The objectives of the partnership are: - Promote and collaborate in the development of events and joint activities between the parties; - Promote the dissemination of activities, scientific and industrial literacy and opinion articles; - Promote the participation of both associations members in activities developed by each party; - Promote other forms of cooperation that are not envisaged in the present Agreement.
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#### **Collaboration with other YPNs**

YPN name	Description of collaboration	
N/A	N/A	

## 6. Contributing to the strategic plan

During 2020 our activities have contributed for the following IAHR four pillars:



- Provide a world class international networking platform and great member experience: The IAHR Portugal YPN continues to grows its members that work in the industry (specially design engineering companies) and provides an opportunity to network between academia and industry. Also, some of our Portuguese members are researching/working abroad and, therefore, their shared experiences through for instance our opinion articles, can contribute to the development of our member community.
- 2. Inspire, disseminate and catalyse state-of-the-art knowledge and thinking: At the IAHR Portugal YPN we are inviting our members, as well as non-members, to write opinion articles that relate the acquired knowledge with civil society problems. By promoting these articles we are trying to foster positive discussion and engagement between different parties in order to leverage ideas and brainstorming events.
- 3. Institute events that set agendas, harness and amplify the collective knowledge of the global Hydro-Environment community: The partnerships established late this year will allow us cooperate with different associations/universities from Portugal in knowledge and experiences sharing. We have been invited to develop a roundtable for discussion between young members at the major Portuguese Hydraulics and Water Resources conference, which will be held next year. This event was supposed to be developed during the current year. However, taking into account the current pandemic situation, the conference was postponed for next year.
- 4. Act as a global voice on behalf of the Hydro-Environment engineering industry and research community: This year, the YPN participated in an event for discussing the 2030

Portuguese Strategic Plan for Water supply and Sewage, currently being drafted by the Portuguese Government. During this event, we have raised several questions that, in our opinion, and based on our different backgrounds, should be addressed by the Strategic Plan. Our questions were well received and we have been asked to develop and elaborate more after this short presentation. Currently, we are developing efforts to provide our input to the 2030 Strategic Plan.

#### 7. Quotas

8.1. General financial considerations and bank account

In the present section, actions regarding YPN financial activity in the last year will be presented.

Portugal YPN has a bank account in the Portuguese bank *ActivoBank*. The holders of the account are the Treasurer Catarina Jorge and the President Marta Cabral, on behalf of Portugal YPN. The YPN bank account has no maintenance or transfer costs.

The 2018 YPN Executive Committee donated a fund to the current Committee of 34 €. Considering last year's costs, a value of 16.16 € was transferred from 2019 to 2020 mandate.



#### 8.2. Membership fees

As agreed with IAHR, Portugal YPN members (current and new members) have two alternatives to carry out the membership fees payment:

#### i. Direct payment through IAHR website

The members can pay the fee online through IAHR website. The renewal of the fee is exactly one year after the member joins YPN (and not dependent on the calendar year).

For those YPN affiliates who pay online by themselves, IAHR sends the renewal message and reminds them automatically.

#### ii. Direct transfer to Portugal YPN bank account

It is necessary to provide the receipt of the payment by email. For student members, it is also required to attach the student certificate.

When Portugal YPN collect all the members' fees, then it is possible to pay to IAHR by bank transfer or online through IAHR website. This solution can be applied only if some members have difficulties to pay by themselves in the website. In this case, YPN can pay the fees for them as a group or individually. Therefore, IAHR send an invoice to YPN including them.

For affiliates of YPN that pay the fees online, the invoice sent by IAHR won't include them and IAHR can also send to YPN Portugal the list with who has finished the payment.

As this agreement with IAHR described in ii) was only recently reinforced, in 2020 the majority of the members still paid the fees directly to YPN. The fees have not changed compared to the previous year.

	Affiliation	Value
2020 Fees	Student	10 €
	Young Professional	22€

After collecting the fees from all Portugal YPN members, a transfer regarding the total value was made to IAHR.

#### 8.3. Summarized revenue and other expenses

#### 8.3.1. Revenue from membership fees

During January and February 2020 YPN Portugal collected the membership fees of the year. At the date of the payment, Portugal YPN had 19 members: 11 students and 8 young professionals. In comparison to the 2019 fees payment, YPN received more three payments (young professional affiliation). Next table shows the total amount of received fees by affiliation. One student member (10 € of fee) paid the membership fee directly in the IAHR website, therefore it is not included in the table below.



Affiliation	Fees	Number of members	Total
Student	10€	10	100€
Young Professional	22€	8	176€
TOTAL PAID FEES			276€

The total due amount of 276 € was transferred on 2<sup>nd</sup> March 2020 to the IAHR bank account.

#### 8.3.2. Other expenses

Regarding the period of the mandate, Portugal YPN had expenses associated with the website domain renewal. This expense has not yet been paid as YPN does not have sufficient funds and is still analysing how to proceed. Next table summarises the described cost (unsettled) and final cash to order in Portugal YPN account to date – on 24<sup>th</sup> November 2020 (marked in bold).

Expense	Date	Cost to YPN	Total € to order
Website Domain	04-06-2020	19.07€	16.16 €

As abovementioned, YPN is arranging with IAHR to define a future solution for the payment of this type of costs (other necessary expenses: e.g., organizing events, purchasing domains or materials, among others).

# IAHR Poland Young Professionals Network

2020 Annual Report of Activities





### IAHR Poland Young Professionals Network 2020 Annual Report of Activities

#### 1. Introduction

The mission of the IAHR Poland YPN is to revitalise the Polish community of water-environmental scientists and practitioners, and in particular early-career researchers. The IAHR Poland YPN also aims to promote awareness on hydro-environmental issues and create a roundtable for ideas and innovation, knowledge-exchange and collaboration.

The challenge of our generation is to ensure the Right for information, knowledge and learning new skills related to water and the environment. We believe that science in general is underrepresented in the actual educational system, and this has, with the time, led to a veiled negligence for the care of the environment supporting our existence. Water, air, soil, are key elements of our lives, and still too little is really taught to young humans, which we are, for sure, eager to get their minds dirty with such knowledge. The greatest Challenge for our generation is to make this real, only a bottom-up awareness and education, will allow to build on the actual inequalities a more sustainable structure, and survive in connection to what the Earth can offer.

#### 2. 2020 main goal and key objectives

The 2020 was the first year of the IAHR Poland YPN operation. The main goal was to establish key structures, create visibility in both the scientific community and social media and attract new members. These goals were achieved through the organization of a series of webinars, which were free and open to the public. A continuation of this activity is planned for 2021.

#### 3. Communications

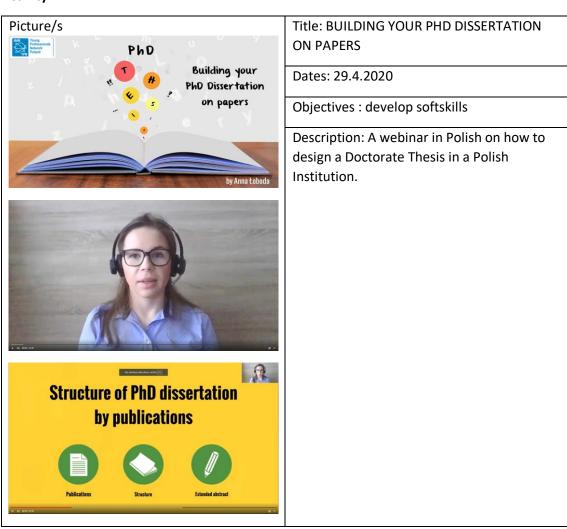
[Website and social networks]

Website	https://sites.google.com/view/iahr-poland- ypn/home
Facebook	https://www.facebook.com/IAHRPolandYPN
Twitter	
Instagram	
Linkedin	
Other	

#### [Promotional and information materials]

Newsletter/s	
Publication/s	
Other	

#### 4. Activities





#### **Activity 2**



Title: OPPORTUNITIES FOR FUNDING AND MOBILITY FOR YOUNG RESEARCHERS

Dates: 26.6.2020

Objectives: develop softskills in researching the right research funding scheme

Description: Webinar delivered in collaboration with Marie Curie Alumni Association Polish Chapter, Dr R.Soman presented an overview of available funding schemes and Dr. M. Gorna offered her personal view and experience as a successful candidate for different Polish and International grants.

#### **Activity 3**



Title: HOW TO WRITE A GOOD PAPER: AN EDITOR'S PERSPECTIVE

Dates: 16.7.2020

Objectives: developing the fundamental skill of presenting your research in a journal paper

Description: Webinar organised with the support of the IAHR Secretariat, as well as YPN community and JoHR editors. Prof. M.Ghidaoui guided us through the preparation of a good quality scientific paper, adding personal perspectives and lessons learned in his career as author, reviewer and editor of a peer-reviewed international journal.

Activities specifically dedicated to promoting membership were not organised.

## Poland Young Professionals Network

#### 2020 Annual report of activities

#### 5. Partnerships and collaborations

Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership

Collaboration with other YPNs

YPN name	Description of collaboration
IAHR BW-YPN	Only drafted: sharing research topic of members to foster wider collaboration

#### 6. Contributing to the strategic plan

7.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (https://www.iahr.org/index/detail/101)

The activities of IAHR YPN Poland in 2020 fit into the vision and strategic plan of IAHR during ongoing years. As a new-born group, with the support of the IAHR Secretariat, we were able to organize a webinar, which, until now, reached over 7,000 views among the scientists. Our other webinars with fewer viewers count also reached people that were unaware of our organization. What is more, we shared our experiences and subjects of scientific interests among the members during the first meeting. Participation in the 1st IAHR Young Professionals Congress of 4 of our members helped share topics that they are focusing on. Continuously, we are coorganizing the forthcoming webinar "Experimental Methods and Laboratory Instrumentation in Hydraulics", which fits perfectly with the goals of the organization.

#### 7.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

Due to being 1st year of activity and the special conditions which changed the scheduled program of this year's events, YPN Poland contributed mainly to the aim of creating a coherent network among polish community of young researchers. The first organised online events showed that in spite of the difficulties, our small group started to work together, advertise itself and share ideas.

### IAHR Vienna Young Professionals Network

2020 Annual Report of Activities





### IAHR Vienna Young Professionals Network 2020 Annual Report of Activities

#### 1. Introduction

The IAHR Vienna Young Professionals Network consists mainly of students and former students of Civil Engineering and Water Management at the University of Natural Resources and Life Sciences Vienna. Due to the different objectives that many of our members follow during their studies, we also address different topics in our network and try to stay open to new ideas and inputs. Our objective is to stay informed on new developments on research topics and encourage our members to widen their view on the different topics that some of us have gained experience or deeper knowledge in. Also, we want to provide a sort of platform for members to contribute and share their own ideas and inputs.

#### 2. 2020 main goal and key objectives

[Main objective for 2020 and a brief description of the objectives of your activities as a YPN in 2020]

The main objective for the year 2020 was to involve Vienna's Technical University in our network. Apart from this, we had planned to organize several field trips and talks for our members. Sadly, the still ongoing pandemic has made it impossible to continue the planning process since early March, which is why we were not able to meet with our members or organize events with them. We did promote IAHR's events via our Facebook page, tried to stay in contact via our email list and some of us participated in the IAHR YPN Congress, also by actively taking part in the poster presentations.

#### 3. Communications

[Website and social networks]

Website	-
Facebook	https://www.facebook.com/viennalAHRYP
Twitter	-
Instagram	-
Linkedin	-
Other	Mailing list via <u>iahr@oehboku.at</u>



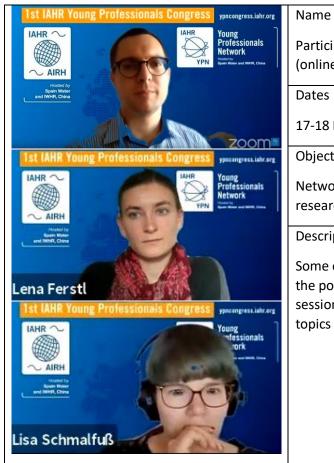
#### [Promotional and information materials]

Newsletter/s	-
Publication/s	-
Other	-

#### 4. Activities

[Activities organised in 2020] [Please also attach pictures a separate .JPG files]

#### **Activity 1**



Name of the activity

Participation at 1st IAHR YPN Congress (online)

17-18 Nov 2020

Objectives

Networking, Information on current research topics

Description

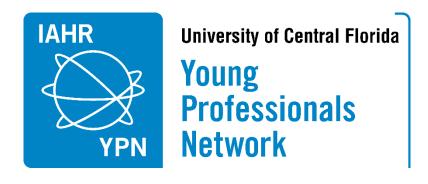
Some of our members actively took part in the poster presentations of different sessions; Further discussion on selected topics in a separate Zoom meeting



Picture/s	Virtual get together (online)
	18 Nov 2020
	Exchange of experiences from our participation at the 1st IAHR YPN Congress
	Description  unmoderated conversation and exchange between YPN members via videoconference

### IAHR University of Central Florida Young Professionals Network

2020 Annual Report of Activities





# IAHR University of Central Florida Young Professionals Network 2020 Annual Report of Activities

#### 1. Introduction

IAHR UCF YPN is hosted by the Center for Hydroscience Analysis, Modeling & Predictive Simulations from Department of Civil, Environmental, & Construction Engineering at University of Central Florida. IAHR UCF YPN involves students in the international research community for fluid mechanics; hydraulics; hydrology; water resources & environmental engineering (hydroscience) to broaden their knowledge and enable affiliates to gain experience and network for their future careers.

#### 2. 2020 main goal and key objectives

The main objective of 2020 was to actively involve students in the international community of research and best practice in water science and engineering. We aim to broaden the knowledge of student affiliates in the field of water resources engineering and research, through participation in seminar activity, academic meetings, etc. During each activity, we also hope to provide information to the members which is useful for their careers. Though the COVID-19 pandemic has highly influenced our normal activities on the campus in 2020, we still have hold two seminars in the early time of this year before the COVID-19 has been identified.

#### 3. Communications

[Website and social networks]

Website	https://knightconnect.campuslabs.com/engage/organization/iahr
Facebook	https://www.facebook.com/groups/IAHR.UCF/

#### 4. Activities

Pictures	Name of the activity:
	Dr. Taylor Perron's seminar
	Dates:
	February 4 <sup>th</sup> 2020

#### 

#### 2020 Annual report of activities



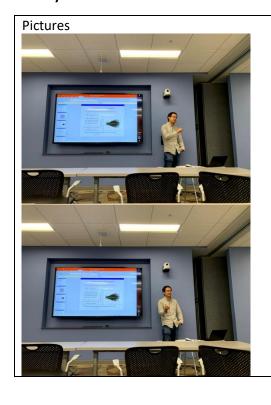
#### Objective:

Delivering opportunities for professional development

#### Description:

Dr. Taylor Perron is one of the well-known scientists in the field of Earth, Atmospheric & Planetary Sciences from MIT. In February 2020, IAHR UCF invited Dr. Perron to speak at UCF. Dr. Perron's lecture was on "The imprint of rivers on biodiversity and planetary topography".

#### **Activity 2**



#### Name of the activity Water First Seminars

#### Dates

March 4<sup>th</sup> 2020

#### Objectives

Delivering opportunities for professional development

#### Description

The transport of bedload sediment particles (e.g., sand and gravel) and the complex bedforms formed on the riverbed exert significant control on aquatic life, water quality, and infrastructure safety. IAHR UCF hosted a seminar led by Dr. Zi Wu, a postdoctoral researcher working with Dr. Arvind Singh at University of Central Florida, in March 2020. Dr. Wu gave a presentation on "Bedload sediment tracer motions and anomalous transport across different timescales.



#### **Other Activities**

Other activities were cancelled because of COVID-19 pandemic.

#### 5. Contributing to the strategic plan

6.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (<a href="https://www.iahr.org/index/detail/101">https://www.iahr.org/index/detail/101</a>)

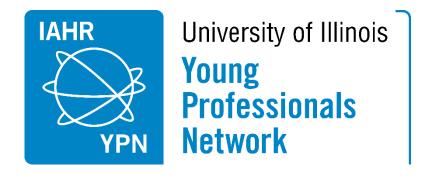
IAHR aims to bring together the world's engineers, experts, researchers and organizations to accelerate solutions and knowledge discovery about the water environment. To contribute to this aim, IAHR UCF YNP provides a platform for our members to learn the high-level research related to the water resources engineering in the world. Specifically, we have invited well-known scientists in the field of water resources engineering to give talks at UCF. In addition to that, to inspire our members to get engaged in addressing the global water challenges. During each seminar, we arranged a student meeting, in which our members were invited to present their own research. Then our guests and members had discussions regarding their research problems.

#### 6.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

Our YPN has more members during this year, which helps enlarge the impacts of IAHR YPN in student group at UCF. Different seminars gave the opportunity to present the work from well-known scientists as well as our members. Our YPN has contributed to build an international community of top scholars and researchers in water science and engineering.

## IAHR University of Illinois Young Professionals Network

2020 Annual Report of Activities





### IAHR University of Illinois Young Professionals Network

#### **2020 Annual Report of Activities**

#### 1. Introduction

The IAHR University of Illinois Young Professionals Network (YPN) is a cohort made up of graduate students from across the University of Illinois at Urbana Champaign who have professional and academic interests that focus on hydraulic and hydrologic research.

#### 2. 2020 main goal and key objectives

The primary objectives for the chapter throughout 2020 have been to continue to provide programming to student members on a virtual platform, and maintain communication regarding IAHR global events, as well as campus specific events. One of the key objectives of the IAHR chapter is to organize departmental participation in the University of Illinois Grainger College of Engineering, Engineering Open House (EOH) annual event.

#### 3. Communications

[Website and social networks]

- ···	011 1 1 1 11110
lwitter	@HydroLab UIUC
	6117410245_0100

#### 4. Activities

Picture/s	Name of the activity Bi-Weekly Hydro-Geo Student Seminar
	Dates 09/07/2020 – 12/7/2020
	Objectives Professional Development, Academic Research Support
N.a. (Due to Pandemic)	Description The Hydro-Geo Student Seminar is a bi-weekly student led seminar for graduate students within the hydraulic engineering, geology, and geography departments with research focuses in the fields of water resources and hydro-geology. The seminar provides students with the opportunity to practice presentation



skills as well as to receive peer-feedback on their research
progress.

#### **Activity 2**

Picture/s	Name of the activity Weekly Water Resources Engineering and Science (WRES) Guest Speaker Seminar Series
	Dates 08/28/2020 – 12/04/2020
N.a. (Due to Pandemic)	Objectives Raising Awareness About Water Resources Issues
	Description The weekly WRES seminar brings in visiting faculty members to present on topics related to issues of water resources and hydrologic academic research.

Picture/s	Name of the activity Engineering Open House (EOH)
	Dates March 26-27
	Objectives Community Involvement
N.a. (Due to Pandemic)	Description EOH is the largest annual public event put on by the Grainger College of Engineering. The purpose of the event is to showcase the incredible diversity of study and research that is done amongst the different engineering departments by providing educational scientific exhibitions and demonstrations to members of the greater community of all ages. It is a fantastic event, and the WRES program has had incredible success over the years at presenting award winning exhibitions at EOH.

## University of Illinois Young Professionals Network

#### 2020 Annual report of activities

#### 5. Partnerships and collaborations

Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership
International Water Resources	The student chapters of IWRA and IAHR partner to
Association (IWRA)	facilitate social, professional, and community service
	programming for graduate students within the water
	resources disciplines.

#### Collaboration with other YPNs

YPN name	Description of collaboration

#### 6. Contributing to the strategic plan

7.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (<a href="https://www.iahr.org/index/detail/101">https://www.iahr.org/index/detail/101</a>)

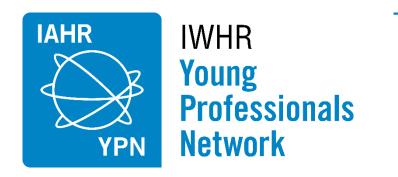
Through the promotion of multiple water resources research oriented seminar, the University of Illinois student chapter of IAHR has successfully provided access to up to state-of-the-art research dissemination as well as a diverse community within which to amplify and promote innovative academic research in the field of water resources engineering. The chapter's continued participation in the University of Illinois EOH allows us to share our knowledge and passion for Hydro-Environmental issues with the surrounding community and the University of Illinois at large.

#### 7.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

The YPN chapter of IAHR at the University of Illinois has been able to contribute to the high level aims of the international organization throughout the 2020 academic year despite COVID-19 restrictions put in place by the university. Our members have consistently attended virtual student and faculty led seminars which provide a platform for the dissemination of up to date research initiatives in the field of hydrogeology and hydraulic engineering. The bi-weekly hydrogeo seminar, which has been converted to a virtual meeting space, brings together students from different scientific disciplines to discuss novel research methods and collaborate to solve individual research issues from a inter-disciplinary perspective. Finally, the 2021 EOH will be held on a virtual platform for the first time since the program's inception. This new platform will provide our members with the unique opportunity to act as a global voice on behalf of the Hydro-Environment community by virtually bringing field and laboratory experiments and concepts into people's homes around the world.

### IAHR IWHR Young Professionals Network

2020 Annual Report of Activities





### IAHR IWHR Young Professionals Network 2020 Annual Report of Activities

#### 1. Introduction

IAHR IWHR YPN established was established on April 12, 2011. During the period of more than nine years, the executive committees and members have been committed to the development of IAHR IWHR YPN. On the one hand, we continue to create more learning opportunities for members, and on the other hand, we have also organized some activities to strengthen the cohesion. Currently, there are 192 members of IAHR IWHR YPN, covering master students, doctoral students and some young professionals.

IAHR IWHR YPN is committed to providing a good communication platform, enabling students to broaden horizons, increase communications and show themselves among graduate students, various universities and on the international stage. We are committed to making efforts for the majority of young professionals to improve their scientific research and keep up with the frontiers and development trends of their professional areas.

#### 2. 2020 main goal and key objectives

Due to the outbreak of COVID-19, many of the originally planned face-to-face communication events had to be cancelled. So the main objective for 2020 has been changed to provide services such as communication activities and academic guidance for graduate students and young professionals through online conferences, combining the discipline characteristics and training goals of IWHR.

#### 3. Communications

Website	https://www.iahr.org/index/committe/27
Facebook	
Twitter	
Instagram	
Linkedin	
Wechat	szydiaodu



#### 4. Activities

#### **Activity 1**



#### Name of the activity

IAHR World Water Day 2020 Special Event-

Hydro-environment Engineering and Adaptation to Climate Change

#### **Dates**

21 March 2020

Objectives (e.g. Delivering opportunities for professional development, raising awareness about water issues, motivating membership, etc.)
Share the knowledge and practice of "Hydro-environment Engineering and Adaptation to Climate Change".

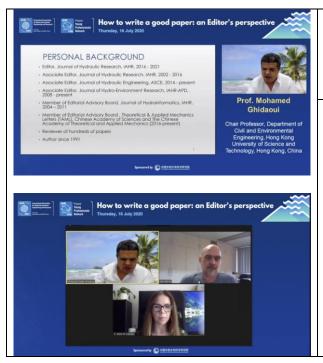
#### Description

This year the theme of World Water Day is water and climate change, also the subject of the 2020 World Water Development Report to be released on that day. IAHR China Chapter organized a special event to celebrate World Water Day and share with its members and others, ideas on the connection between water and climate change. IAHR IWHR YPN helps to organize the virtual forum, widely publicize the theme of the event, and encourage members to actively watch and communicate online.

Picture/s	Name of the activity
	How to write a good paper: an Editor's
	perspective
	Dates
	16 July 2020
	<b>Objectives</b> (e.g. Delivering opportunities
	for professional development, raising

## IAHR Young Professionals Network

#### 2020 Annual report of activities

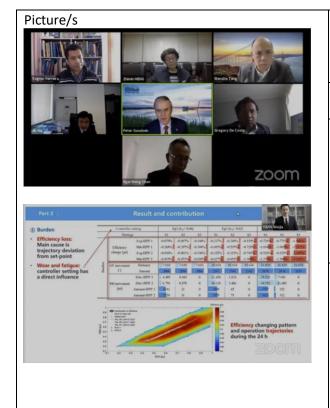


awareness about water issues, motivating membership, etc.) Giving lectures and guidance on how to write a good paper from an Editor's perspective

#### Description

In order to improve the writing level of scientific and technological papers of scientific researchers and students, we organized a virtual forum, invited two editors of the well-known IAHR journal "Journal of Hydraulic Research" (JHR) gave online lectures on scientific paper writing and journal submission experience.

#### **Activity 3**



#### Name of the activity

2020 CHES Annual Conference International Session

#### **Dates**

20 October 2020

Objectives (e.g. Delivering opportunities for professional development, raising awareness about water issues, motivating membership, etc.)
Including the 3rd Academic Paper (English) Contest for Young Professionals in Water Sector and academic speeches.

#### Description

Nearly 20 contestants recommended by more than 10 institutes including IWHR YPN, attended the 3rd Academic Paper (English) Contest for Young Professionals in Water Sector. Based on their decades of research and experience, experts provided contestants with professional guidance and suggestions, encouraged young



professionals to seek far away on the
road of scientific research.

#### **Activity 4**



#### Name of the activity

1st IAHR Young Professionals Congress

#### **Dates**

17-18 November, 2020

Objectives (e.g. Delivering opportunities for professional development, raising awareness about water issues, motivating membership, etc.)
Young professionals from all over the world present their work and get feedback and mentoring from leading international experts.

#### Description

Topics of the 1st IAHR Young
Professionals Congress include
hydroinformatics, fluvial hydraulics,
climate change adaptation, urban
drainage, and water resources
management and global water security.
Young professionals from IAHR IWHR
YPN presented their work and get
feedback and mentoring from leading
international experts.

#### 5. Partnerships and collaborations

Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership
IAHR Water System Operations	We help to organize and participate the 1st International
Working Group	Symposium On Water System Operations and prepare the
	2 <sup>nd</sup> International Symposium on Water System
	Operations, ISWSO2021.



#### **Collaboration with other YPNs**

YPN name	Description of collaboration	
IAHR Tsinghua University YPN Academic lecture, Project cooperati		
IAHR Hohai University YPN	Academic lecture, Project cooperation	
IAHR Tianjing University YPN	Academic lecture, Project cooperation	

#### 6. Contributing to the strategic plan

7.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (<a href="https://www.iahr.org/index/detail/101">https://www.iahr.org/index/detail/101</a>)

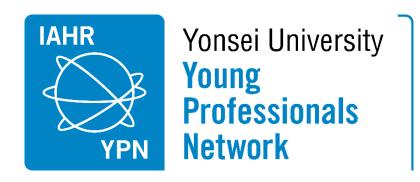
Although the Coronavirus pandemic disrupted some original plans, the online conference mode made the participation more convenient and attracted more young professionals worldwide for academic exchanges. More and more researchers have the opportunity to engage in IAHR activities, network and connect with peers and senior IAHR members, receive mentoring and support, and get access to the latest knowledge, information and know-how in the early stage of their careers.

#### 7.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

We are working hard to promote and attract more students and young professionals to become our members. In addition to strengthening internal and external communication, we are also expanding publicity with the help of new media, such as promoting academic activities, sharing excellent articles, and publishing recruitment information on the WeChat, QQ and others. In addition, we actively communicate and cooperate with other YPNs, such as inviting experts to give academic lectures, co-organizing academic forums for doctoral students, project cooperation, etc., to achieve complementary resources.

### IAHR Yonsei University Young Professionals Network

2020 Annual Report of Activities





### IAHR Yonsei University Young Professionals Network

#### 2020 annual Report of Activities

#### 1. Introduction

Yonsei University Young Professionals Network pursues to connect the knowledge of water resources issues between sociological, scientific, and engineering parts. We seek to understand the sustainable management of water resources and water-related disasters. We develop and utilize a range of numerical models including land surface-terrestrial biosphere models and watershed-scale hydrologic models together with data from both ground-based and remotely sensed measurements

Align with the main objective of IAHR YPN, we deem to count the importance of building a young professional's relationship. As a group studying sustainable management of water resources, we actively share the research ideas to strengthen a young professional's ties not only interacting inside but also with other YPNs in the Republic of Korea, Korea University YPN (KU-YPN), Seoul National University YPN (SNU YPN).

#### 2. 2020 main goal and key objectives

The main goal of the activity of this year is to have an active interaction with other YPN networks in the Republic of Korea, KU-YPN, SNU-YPN and Yonsei YPN. We have a keen membership to enhance our young professional's network. Currently, we are having a periodic meeting to interact our thoughts and plans to enhance the community goal. There are three main key objectives that we are focusing on.

#### Key objectives

- Sharing recent research ideas
- Interacting with professionals
- Strengthening a young professional community

#### 3. Communications

[Website and social networks]

Website	http://hecl.yonsei.ac.kr/
Facebook	
Twitter	
Instagram	
Linkedin	

Other	
[Promotional and information materials]	
Newsletter/s	
Publication/s	

#### 4. Activities

#### **Activity 1**

Other



Name of the activity: Meeting with KU-YPN

Dates:

2020.11.04

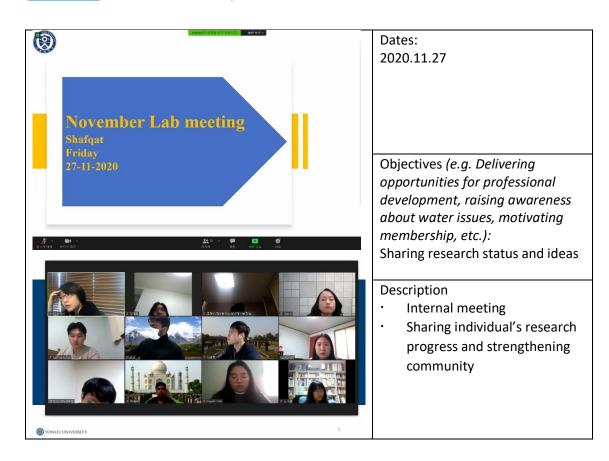
Objectives:

Sharing the activities and motivating memberships

#### Description:

- The interaction with Korea University YPN
- Presentation by prof. Donghwi Jung: "Design and Operation Management for Improving the Elasticity of Water and Sewage Pipe Networks

Name of the activity: Monthly meeting of Yonsei University YPN



#### 5. Partnerships and collaborations

Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership	
Korea University Yonsei University YPN and KU-YPN		

#### Collaboration with other YPNs

YPN name	Description of collaboration
Korea University YPN (KU-YPN)	· Seminar by prof. Donghwi Jung

#### 7. Contributing to the strategic plan

7.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (<a href="https://www.iahr.org/index/detail/101">https://www.iahr.org/index/detail/101</a>)

The mission of IAHR is to build an international community of researchers in water science and engineering. Our activities in 2020 have contributed to explore the knowledge on water related issues together with the interaction between land-atmosphere in science and engineering. We

## Yonsei University Young Professionals Network

#### 2020 Annual report of activities

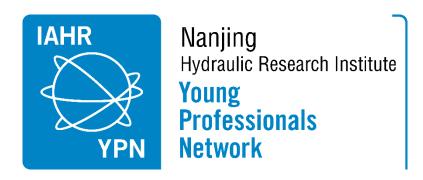
had a YPN meeting to follow up individual's research topics and status. To have interactive connection with other YPNs, Yonsei YPN and Korea YPN had a collaboration by taking seminar led by prof. Donghwi Jung. These activities are following by the IAHR YPN idea of boosting knowledge through the network of expertise.

#### 7.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

The one of the high-level aims of IAHR YPN is to provide a world-class international networking platform and great member experience. To inspire, disseminate, and catalyse state-of-the-art knowledge and thinking, Yonsei YPN has been actively researching up-to-date water related issues. Particularly, we are exploring the land-biosphere-atmosphere interactions, droughts and extreme hydroclimate events under changing climate.

## IAHR Nanjing Hydraulic Research Institute Young Professionals Network

2020 Annual Report of Activities





# IAHR Nanjing Hydraulic Research Institute Young Professionals Network 2020 Annual Report of Activities

#### 1. Introduction

International Association for Hydro-Environment Engineering and Research Nanjing Hydraulic Research Institute Young Professionals Network (IAHR-NHRI-YPN) is an academic organization composed of youth members. The chapter was formally established in Nanjing in May 2018 under the guidance of the IAHR China Chapter and the support of the Nanjing Hydraulic Research Institute. The number of registered members has reached 120. The daily activities of the IAHR-NHRI-YPN are organized and managed by the executive committee. The executive committee includes 1 chairman, 2vice-chairmen, 1 affair secretary, 1 communication secretary, and 1 financial secretary.

IAHR-NHRI-YPN actively pays attention to the research frontiers of hydrology and water resources, hydraulics and river dynamics, water conservancy and hydropower engineering, hydraulic structural engineering and port, coastal and offshore engineering, geotechnical engineering, disaster prevention and mitigation and protection engineering, bridge and tunnel engineering, structural engineering, municipal engineering, environmental engineering, material science and engineering, etc. With the help of IAHR as an international exchange platform and combined with the advantages of our technical and scientific research, IAHR-NHRI-YPN actively carries out various activities in order to improve the academic level and international vision of its members and promote young scholars to the international academic stage.

#### 2. 2020 main goal and key objectives

In 2020, it was originally planned to carry out two water conservancy project visits and inspection practice activities (spring and autumn), so that young scholars have an intuitive experience of water conservancy projects, but it was cancelled due to the epidemic.

At the end of December 2020, the first NHRI-YPN academic annual meeting will be held. The preparation stage is currently being planned to enable more young scholars' ideas to be discovered and guided, so that multi-dimensional sparks of thought can collide.

Recruiting new members, improving the organization and management mechanism, and reviewing membership has made NHRI-YPN a more mature professional student organization.

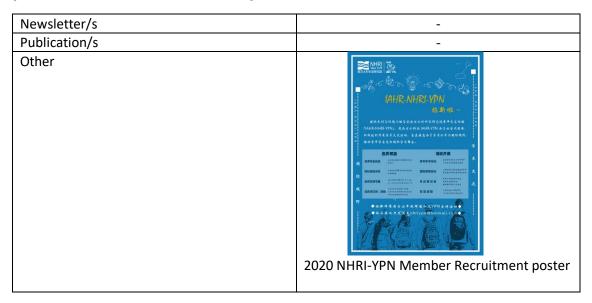


#### 3. Communications

[Website and social networks]

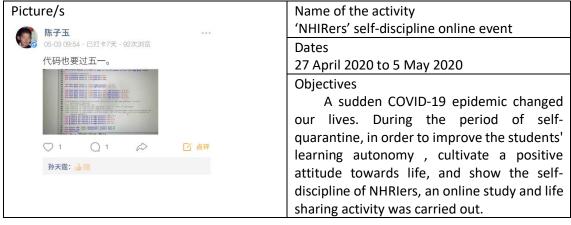
Website	https://www.iahr.org/index/committe/66
Facebook	-
Twitter	-
Instagram	-
Linkedin	-
Other	QQ chat group (group number 783771720)

#### [Promotional and information materials]



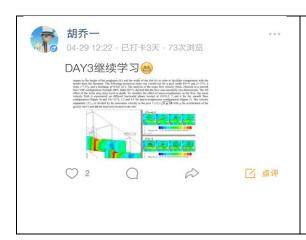
#### 4. Activities

[Activities organised in 2020] [Please also attach pictures a separate .JPG files]



## Nanjing Hydraulic Research Institute Young Professionals Network

#### 2020 Annual report of activities



#### Description

This activity is for graduate students in NHRI. The clock-in time is from 8: 00 to 23:00 every day. Students could share their detailed learning and life status in the online group 'NHIRers' self-discipline' in WeChat. During the event, you can get a beautiful bookmark (or postcard) after sharing online for 7 days. In the end, we selected 10 students who could best show NHRIers' self-discipline through voting, and rewarded them with a customized exquisite notebook.

#### **Activity 2**



Name of the activity

IAHR-NHRI-YPN Recruitment presentation

Dates

September 13-21, 2020

#### Objectives

It aims to introduce IAHR-NHRI-YPN in a comprehensive and systematic way, and new graduate students can have a more detailed understanding of the activities, membership benefits and executive committee of YPN, so that each freshman can choose the position that interests him or her according to their own will and specialty, and then integrate YPN with new blood to achieve better development of IAHR-NHRI-YPN.

#### Description

1. IAHR-NHRI-YPN introduction

Firstly, we briefly introduce the basic conditions of IAHR, YPN, and IAHR-NHRI-YPN.

2. YPN activity report

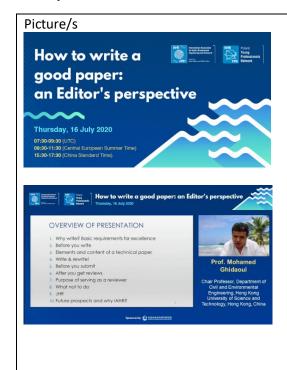
We described in detail the activities that YPN has conducted so far and the results achieved.

Welcome new students

We introduced the membership benefits and the executive Committee, and issued a notice to recruit new members and members of the new executive Committee.



#### **Activity 3**



Name of the activity

Watching the academic lecture organized by IAHR & Discussing and exchange views after the meeting

**Dates** 

July 16, 2020

Objectives

The purpose is to provide members with an opportunity for academic exchanges, a chance to collide with different academic views and to strengthen members' understanding of the field of water science and learning of frontier science.

#### Description

During the year, IAHR-NHRI-YPN organized members to watch IAHR academic lectures. After watching members conduct internal academic exchange activities in the form of report and speech combined with free discussion. The purpose is to build a frontier academic exchange and sharing platform for our members. During the event, members freely share the latest experiments and scientific research results of their disciplines in combination with IAHR lectures, including navigation hydraulics, hydrology and water resources, hydraulic engineering, geotechnical engineering and other disciplines.

#### Activity 4



Name of the activity

Study the "Global Water Security" online seminar organized by IAHR

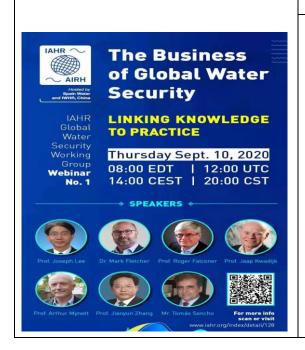
Dates

September 10, 2020

Objectives

Present a high-quality online seminar to members and encourage members to participate in the discussion of global water security knowledge and practices.

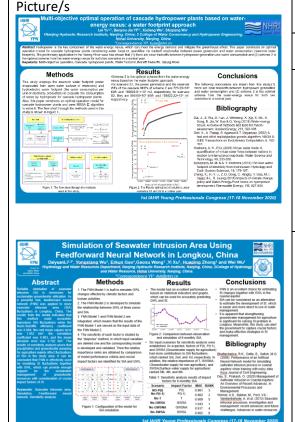




#### Description

Global Water Security remains one of the biggest challenges facing humanity, alongside Climate Change and Pandemic Management. On a global scale, water is a critical shared resource that authorities must understand to enable economic growth, social health and environmental sustainability. In the context of global water security, it is necessary and urgent to strengthen the importance of water security and understand the current situation of water security. Taking this opportunity, members of the food delivery organization watched and learned this seminar together, and exchanged and discussed personal views after the meeting.

#### **Activity 5**



#### Name of the activity

1st IAHR Young Professionals Congress

#### **Dates**

November 17, 2020

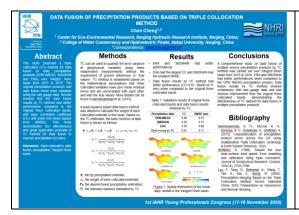
#### Objectives

In order to provide a platform for the postgraduates of our college to display scientific research achievements and international exchange, broaden their academic horizon their and exercise international exchange ability, this activity is specially organized.

#### Description

More than 40 graduate students watched the live broadcast of the academic report. Cheng Chen, doctoral candidate of The Institute of Ecology and Environment of our college, Daiyuan Li, doctoral candidate of Hydrology and Water Resources Research Institute, and Lei Yu, doctoral candidate of hydraulic engineering and hydraulics, actively signed up for the conference and were successfully selected. They made academic reports and





exchanges, showing the academic style of south Science students on the international stage. At the same time, YPN also actively organizes postgraduate members to watch the live broadcast of academic reports offline.

#### 5. Partnerships and collaborations

Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership
-	-

#### **Collaboration with other YPNs**

YPN name China			Description of collaboration	
			IAHR China Branch organises exchange meeting for YPNs annually, and members	
IAHR Dalian University of Technology Young Professionals Network	IAHR Hohai University Young Professionals Network	IAHR IWHR Beijing Young Professionals Network	from 9 YPNs enhance their communications and discuss how to develop YPNs better on this meeting.	
IAHR Nanjing Hydraulic Research Institute Young Professionals Network	IAHR Sichuan University Young Professionals Network	IAHR Tianjin University Young Professionals Network		
IAHR Tsinghua University Young Professionals Network	LAHR Wuhan University Young Professionals Network	IAHR Xi'an University of Technology Young Professionals Network (IAHR-XUT-YPN)		
Hohai University YPN			In 2019, an academic exchanges activity was jointly held by NHRI-YPN and Hohai University YPN. We enthusiastically invited young scholars from Hohai University to carry out academic exchanges in Nanjing Hydraulic Research Institute. We also invited young scholars from Hohai University to attend International Conference Forum for Graduate Students held by us. However, due to the COVID-19, we didn't hold any academic exchanges activities in 2020.	



#### 6. Contributing to the strategic plan

7.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (<a href="https://www.iahr.org/index/detail/101">https://www.iahr.org/index/detail/101</a>)

The COVID-19 epidemic has forced scholars to minimize face-to-face communication to reduce the possibility of infection, but communication between scholars is essential, thus promoting the popularization and development of online communication. As IAHR is an international academic organization, members from all over the world have limited opportunities for face-to-face communication, but the huge advantage of online communication makes up for this deficiency. We promote learning and communication by organizing online sharing activities and actively participating in online activities organized by IAHR in this context, and we believe that online communication will become increasingly popular.

#### 7.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

IAHR-NHRI-YPN actively provides young scholars with abundant academic resources, encourages young scholars to actively carry out research on Hydro-environment engineering, and obtains a large number of important academic results in this process. At the same time, we provide a platform for exchange and sharing to promote academic exchanges among young scholars, so as to facilitate subsequent research work and form a virtuous circle. Specific activities include sharing academic resources, holding academic annual conferences and participating in a variety of IAHR activities.

### IAHR Korea University Young Professionals Network

2020 Annual Report of Activities





# IAHR Korea University Young Professionals Network

# **2020ual Report of Activities**

#### 1. Introduction

Korea University Young Professionals Network (KU-YPN) is an organisation of the International Association for Hydro-Environment Engineering and Research (IAHR) in Republic of Korea. The main objective of the KU-YPN is to share knowledge and experiences with other YPNs in the field of hydro-environment engineering and research around the world. As the first YPN in Republic of Korea, the KU-YPN members are responsible to participate more actively in social networking events provided by IAHR. The KU-YPN members believe that other YPN members could expand their interdisciplinary, social and technical knowledge by collaborating each other. The KU-YPN consists of five graduate students and a student advisor, Professor Donghwi Jung. The committee members of the KU-YPN are now actively working on various study fields: Hydrology, Hydraulics, Riverscape Dynamics, Water Resources Planning, Coastal Hydrodynamics, Geosciences, Advanced Water Resources Engineering, etc. Any undergraduate student, graduate student, and alumnus younger than the age of 40 of Korea University with an interest in the general field of hydro-environment engineering and research is eligible to become a member of the KU-YPN, and thus to be recognized as a Young Professional Affiliate of IAHR.

#### 2. 2020 main goal and key objectives

The KU-YPN's main objective in 2020 was focused on establishing and forming the organisation to become as a YPN. Since the KU-YPN was established on June 16, regular meetings were held twice in 2020. At the first regular meeting, the KU-YPN was organized in success. The by-laws of the KU-YPN was made. At the second regular meeting, the future plans and key objectives of the KU-YPN were set up. All the KU-YPN members discussed about the future activities to achieve the ultimate goals of IAHR YPN. The KU-YPN's key objectives in detail were as follows:

- Research seminars or workshops: Korea Water Resources Association Conference 2020, KSCE 2020 CONVENTION, Water Engineering Conference 2020
- Group trips to IAHR symposia, workshops and congresses: The 1<sup>st</sup> IAHR Young Professionals Congress 2020 (online)
- Informal collaborative activities with neighbouring YPNs: Yonsei University YPN

# Korea University Young Professionals Network

# 2020 Annual report of activities

#### 4. Communications

#### [Website and social networks]

Website	-
Facebook	-
Twitter	-
Instagram	-
Linkedin	-
Other	http://kuwater.korea.ac.kr/

#### [Promotional and information materials]

Newsletter/s	-
Publication/s	-
Other	-

#### 5. Activities

#### **Activity 1**

#### Picture/s



#### Name of the activity

### The KU-YPN 1<sup>st</sup> Regular Meeting

#### Dates

#### 04/06/2020

#### Objectives

#### Establishing the KU-YPN

#### Description

Making the by-laws

Determining the roles of the committee

members

Setting up the main goals and key objectives in 2020

#### **Activity 2**

Picture/s	Name of the activity
	TI WAY 2 PRI STORY
	The KU-YPN 2 <sup>nd</sup> Regular Meeting
	Dates
	06/08/2020
	Objectives
	Discussing about the future activities of the
	KU-YPN
	Description





Planning the future activities: Collaborative activities with neighbouring YPNs Rasing awareness about water issues

#### **Activity 3**



Name of the activity

Collaborative Meeting with Yonsei University YPN

Dates

04/11/2020

Objectives

Collaborative Sharing knowledge and experiences with another YPN

Description

Academic and social exchange with neighbouring YPN, Yonsei University YPN Rasing awareness about water issues

# Korea University Young Professionals Network

### 2020 Annual report of activities

#### 5. Partnerships and collaborations

Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership
-	-

#### Collaboration with other YPNs

YPN name	Description of collaboration
Yonsei University YPN	Academic & Interdisciplinary collaboration

#### 7. Contributing to the strategic plan

7.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (https://www.iahr.org/index/detail/101)

The KU-YPN did following activities in 2020.

- Research seminars or workshops: Korea Water Resources Association Conference 2020, KSCE 2020 CONVENTION
- Group trips to IAHR symposia, workshops and congresses: The 1<sup>st</sup> IAHR Young Professionals Congress 2020 (online)
- Informal collaborative activities with neighbouring YPNs: Yonsei University YPN

The activities above could advocate for IAHR's vision and strategic plan below.

- Provide a world class international networking platform and great member experience
- Act as a global voice on behalf of the Hydro-Environment engineering industry and research community
- Domestic and international academic, interdisciplinary, technical and social exchange
- Inspire, disseminate and catalyse state-of-the-art knowledge and thinking

# Korea University Young Professionals Network

# 2020 Annual report of activities

#### 7.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

The main objective of the KU-YPN is to share knowledge and experiences with other YPNs in the field of hydro-environment engineering and research around the world. The KU-YPN members' research interests could cover almost every section of water cycle on the Earth: Meteorology, Surface water, Subsurface water, Ground water, Coast, Ocean, Evapotranspiration, etc. With doing a kind of group research project between the KU-YPN members, the state-of-the-art knowledge and thinking could arise. By collaborating with other YPNs, the KU-YPN can contribute to enhance the overall academic level of IAHR YPN. Furthermore, by twinning with other groups for cultural and scientific exchange, the closer links between researchers in academia and engineers in practice could be fostered.

# IAHR Seoul National University Young Professionals Network

2020 Annual Report of Activities





# IAHR Seoul National University Young Professionals Network (IAHR SNU YPN)

# **2020 Annual Report of Activities**

#### 1. Introduction

The IAHR SNU YPN was created at the Seoul National University (SNU) in Seoul, South Korea in July 2020. The chapter started out with 12 members, all of them from graduate program at department of civil & environmental engineering in SNU. We aimed to promote awareness on recent hydro-environmental issues and provide a communication platform to share ideas, experience, and knowledges.

#### 2. 2020 main goal and key objectives

- 1. catalyse professional thinking and knowledge to improve the research works through the seminars.
- 2. globally share member's great experience to broaden their research horizon by participating to international congresses.

#### 3. Communications

[Website and social networks]

Website	-
Facebook	-
Twitter	-
Instagram	-
Linkedin	-
Other	-

#### [Promotional and information materials]

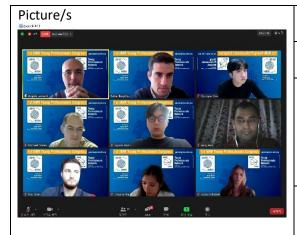
Newsletter/s	-
Publication/s	-
Other	-

# Seoul National University Young Professionals Network

### 2020 Annual report of activities

#### 4. Activities

#### **Activity 1**



#### Name of the activity

1<sup>st</sup> Young Professional Congress

#### **Dates**

17-18 November 2020

#### **Objectives**

To get the opportunity to present our works to international seniors and peers, and examine the global recent progress in hydroenvironmental research.

#### Description

10 of IAHR SNU YPN members participated to the 1<sup>st</sup> Young Professional Congress. They presented their works in the webinar and get feedback from mentors.

#### 5. Partnerships and collaborations

Partner organisations and/or interaction with related national organisations

Organisation	Description of partnership

#### Collaboration with other YPNs

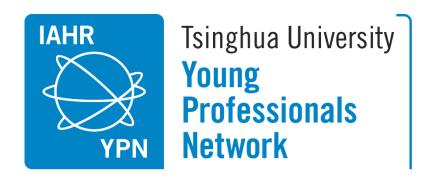
YPN name	Description of collaboration

#### 6. Contributing to the strategic plan

The IAHR technical committee on Educationand Professional Devlopment organized the 1<sup>st</sup> Yong Professional Congress to globally encourage the researchers to interact each other so that the synergy makes our works get better. As a part of the community, we presented our key works through the webinar and had a communication with the mentors and peers from abroad. This activity was great opportunity to broaden our research horizon. These our efforts will contribute to the IAHR's purpose to provide the international network.

# IAHR Tsinghua University Young Professionals Network

2020 Annual Report of Activities





# IAHR Tsinghua University Young Professionals Network

# **2020 Annual Report of Activities**

#### 1. Introduction

Tsinghua YPN was established in 2015 and is an organisation of students and young professors working in fields related to hydro-environmental sciences from Tsinghua University. Our goal is to provide a platform for members to communicate with other researchers worldwide.

#### 2. 2020 main goal and key objectives

Provide a variety of online communication opportunities for members under the impact of novel coronavirus epidemic.

#### 3. Communications

[Website and social networks]

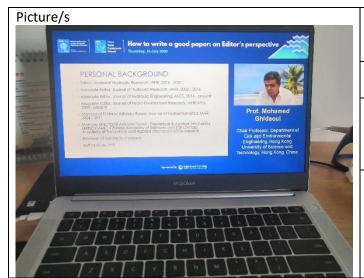
Website	/
Facebook	/
Twitter	/
Instagram	/
Linkedin	/
Other	/

#### [Promotional and information materials]

Newsletter/s	/
Publication/s	/
Other	/

#### 4. Activities

#### **Activity 1**



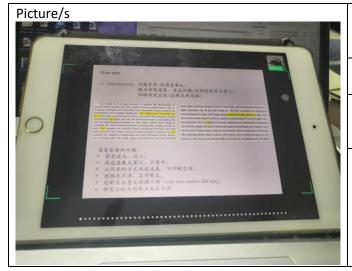
Name of the activity Organizing members to attend online meeting

Dates 2020.7.16

Objectives
Improving writing ability

Description
Organizing members to attend
online meeting

#### **Activity 2**



Name of the activity How to write a paper

Dates 2020.3.27

Objectives
Improving writing ability

Description Inviting Prof. Yang Yuting to give a online lecture.

### **Activity 3**

Name of the activity Operation management in South-to- North water transfer project.
Dates
2020.9.7
Objectives



#### Picture/s



awareness about water issues

Description
Inviting director of South to North
Water Diversion Management
Department to give lecture.

#### **Activity 4**



Name of the activity Thursday Lecture

Dates

Every thursday

Objectives

raising awareness about water issues

Description

Every Thursday, we will invite a professor to share his work.

#### **Activity 5**

Name of the activity party after returning to school
Dates 2020.9.1
Objectives  Motivating membership



Description Inviting members to have dinner after returning to school.

#### 5. Partnerships and collaborations

/

#### 6. Contributing to the strategic plan

7.1. Please describe how your activities in 2020 have contributed to and advocated for IAHR's vision and strategic plan (<a href="https://www.iahr.org/index/detail/101">https://www.iahr.org/index/detail/101</a>)

We have organized many activities and shared the IAHR lecture information in 2020. And most of the activities were online lectures due to COVID-19. We believe our activities provided a world class international networking platform and great member experience and also inspired, disseminated and catalysed state-of-the-art knowledge and thinking.

7.2. Please describe how your YPN contributes to the IAHR YPN high-level aims

We have provided a platform for members to communicate with other researchers worldwide.

# IAHR Hakim Sabzevari Young Professionals Network

2020 Annual Report of Activities





# IAHR Hakim Sabzevari Young Professionals Network 2020 Annual Report of Activities

#### 1. Introduction

At first, we hope all and relatives are healthy and do not suffer too much from the consequences of the Covid19 pandemic that is still strongly affecting all of us. During the difficult passed year, we in IAHR Hakim Sabzevari Young Professionals Network tried to keep our activities and develop them in different fields. **2020 main goal and key objectives** 

During the 2020 we focused on development of our Fluid Mechanics and Hydraulic Laboratory (FMHL) at Hakim Sabzevari University (HSU) and established many equipment's and features on it.

#### 2. Communications

Instagram	Hydraulic.Structures
Telegram Channel	HydraulicStructures1



#### 3. Activities











# Activity 1

#### Name of the activity:

Fluid mechanics and Hydraulic Laboratory

#### Date:

September/2020

### Objectives:

research and laboratory work.

#### Description:

The laboratory is divided into two sections, one for undergraduate students and the other for postgraduate students. There are two rooms in the laboratory for postgraduate students to be able to use them during office hours. Due to the coronavirus epidemic, the presence of students is limited and is done in accordance with health protocols.









## Activity 2

#### Name of the activity:

Visiting Sadid Earth Dam

And

Visiting Groundwater Aquifer Feeding Projects

Date:

April/2020

# Objectives:

Scientific visit to increase students' field information

## Description:

Due to the importance of field visits in the fields of hydraulic structures and water engineering and water resources management, all students visited the Sadid Earth Dam with Dr. Hamed Sarkardeh. This dam is located at 15 km far from Sabzevar city and prevents the damages from the occurred floods in Sadid village and also provides the water for agricultural irrigation demands. Then all the information about this type of dam was taught to students by Dr. Sarkardeh.

Groundwater aquifer feeding projects have been implemented by Mohajer Engineer in

Farimaneh village near to the Sabzevar city. In these projects, a dam with sand and stone mortar has been built downstream of the mountain, and the speed of runoffs are reduced and it



# Activity 3





# Name of the activity:

Attending and introducing IAHR to the other Iranian students, institutes, and universities to promote membership at 18th Iranian Hydraulic Conference at University of Tehran

# Date:

February/2020

# Objectives:

Introducing IAHR Attracting interested students

# Description:

It was a conference at
University of Tehran for
two days and we
introduced IAHR and
YPN at second day and
it was attractive to
everyone who was there
and was well received.



# Activity 4



# Name of the activity:

Establishing knowledge-based company

#### Date:

September/2020

# Objectives:

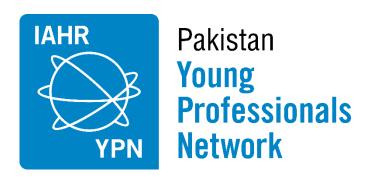
Attention to sustainable development in the construction industry and the environment.

# Description:

In addition to the research works that are doing in the laboratory, a knowledge-based company was established with the help of Dr. Sarkardeh and students. Due to the sustainable development in the construction industry and the environment, the company produces green walls and roof garden. The company intends to convert unused spaces in buildings and urban environments to a pleasant space for people.

# IAHR Pakistan Young Professionals Network

2020 Annual Report of Activities





# IAHR Pakistan Young Professionals Network 2020 Annual Report of Activities

Young Professionals Network believes "Every great achiever is inspired by great mentors". Young professionals network was founded by optimistic leader Prof. Dr. Saqib Ehsan, Head of Civil Engineering Department in 14 March, 2016.

#### O Circular Activities

**O** YPN arranged a CPD on the topic "Water Resources and Energy" conducted by Prof. Dr. Muhammad Arshad who is the chairman of Dept. Irrigation and Drainage, University of Agriculture Faisalabad. This CPD is mainly for the final year students who are about to graduate. This CPD involves about the major dams of Pakistan, their storage capacity and their ability of producing electricity. This one is of great importance to those students who are doing their final year projects relating to hydro power.





O A CPD lecture on "Corrosion resistance structure: FRP Reinforced concrete structure" by "Dr. Qasim Shaukhat khan". He is an assistant professor at UET Lahore An FRP reinforced concrete structure is actually the advanced type of concrete structure which is certainly very favorable method. This CPD workshop is attended by not only NFC students, but many PEC holders as well. An FRP reinforced concrete structure is actually the advanced type of concrete structure which is certainly very favorable method. This CPD workshop is attended by not only NFC students, but many PEC holders as well.







o A lecture is arranged with the cooperation of **FF steel**. In this, the different types of steel grade are discussed along with their properties and other factors.





#### O Co-Circular Activity

O Motivational Lecture on "Journey to Success" by "Sheikh Atif Ahmad". He is a founder of Al-Midrar Institute. Over one thousand students were audience. It was really an inspirational and motivating event. We arranged this lecture for the students who become depressed or anxious due to hectic studies or their social problems. So that the student get some motivation and carry on their studies.





# International Association for Hydro-Environment Engineering and Research

Hosted by **Spain Water and IWHR, China** 

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