

## IAHR YPN Venezuela

Report of activities n° - year	01 - 2019
Date	Dec. 30 <sup>th</sup> 2019

- **Brief review about the YPN Venezuela**

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.

### Members of the YPN Venezuela



**President:** Karol SANCHEZ – currently in Argentina  
Civil engineer, MSc. In Hydraulics (Central University of Venezuela)

**Vice-president:** Francisco ALVARADO – currently in Peru

Civil engineer

**Secretary:** Christopher MENDOZA – in Venezuela  
Civil engineer, Head of the Hydraulics Department of the Central University of Venezuela

**Treasurer:** Verónica LEON – currently in France  
Civil engineer, MSc. In Hydraulics (Grenoble Institute of Technology – Grenoble INP)

Luis AGUILAR – in Venezuela  
Mechanical engineer

Karellys LEAL – in Venezuela  
Geological engineer, MSc. in Geological Sciences (Central University of Venezuela)

María Alejandra MARTINEZ – currently in Argentina  
Civil engineer

Luis Alejandro PADRINO – currently in Ecuador  
Agricultural engineer – currently completing a specialization in leadership, climate change and cities

Dayana PITA – currently in Argentina  
Civil engineer – currently completing her Master's degree

Miguel ROMERO – in Argentina  
Civil engineer

Ingrid SILVA – currently in Sweden  
Civil engineer, PhD student at the Luleå University of Technology

Zambrano Enver – currently in Argentina  
Civil engineer

- **Functioning of the YPN Venezuela**

Our first approach for a fruitful functioning of the YPN consists of the participation of each member on different events located in the region where they live. These events vary from scientific meetings and massive online courses to high-level panel conferences related to hydro-environment engineering issues. Each member assigned to an event prepares a brief summary about the main topics and information mentioned in the event and shares it with the team through our YPN google drive. Online skype sessions are also organized to discuss about our activities, our agenda, and to exchange ideas.

Sharing information and experiences from events in different countries provides a very rich exchange between the members of our YPN. This specificity of our YPN allows us to discover and to be part of activities, researches, projects that are taking place worldwide in different fields (river engineering, instrumentation and materials, hydraulic structures, sustainable development, water-related issues).

- **Events and activities**

Since the creation of the YPN, some of its members have attended to several events that took place in different countries, allowing an enriching exchange of knowledge.

**Seminars: "Sistema de Estabilización y Protección para Taludes de Roca"**

Maccaferri and Pontificia Universidad Católica Argentina

**Date:** May 7<sup>th</sup>, 2019

**Location:** Buenos Aires, Argentina

**YPN members who assisted to the event:** Enver Zambrano, Karol Sánchez and Nelson Fernandes  
 Exchanges on new flexible technologies for hydraulic structures such as sediment retention dams.



**Conference: Segundas Jornadas de Investigación "Ríos Urbanos. Confluencias en el estudio, diseño y gestión de los territorios fluviales"** (FAU-UNLP, FADU-UBA, IA-UNSAM)

**Date:** May 8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, 2019

**Location:** Buenos Aires, Argentina

**YPN members who assisted to the event:** Dayana Pita, Karol Sánchez and Nelson Fernandes

Technical and interdisciplinary conferences (architecture to hydraulic engineering) focused on the study of the relationship between rivers and urban environments.



**1<sup>st</sup> UNESCO International Water Conference**

**Date:** May 13<sup>th</sup>, 14<sup>th</sup>, 2019

**Location:** Paris, France

**YPN members who assisted to the event:** Verónica León

High-level panels and thematic panels focused on the importance of water for the achievement of the Sustainable Development Goals by 2030 (water resources management, water and agriculture, water-related disasters).



### Regional Training Course on Flow-Rate Measurement in Conduits

Instituto de Engenharia Nuclear

**Date:** May 20<sup>th</sup> – June 1<sup>st</sup>, 2019

**Location:** Rio de Janeiro, Brazil

**YPN members who assisted to the event:** Christopher Mendoza

Regional training for the injection of organic and aqueous phase radiotracers, framed in the ARCAL 1016 project. Christopher Mendoza also participated in the event presenting his work on “Certifying Flow Measurement Methods and Calibration Techniques of Flow Meters Used in the Oil and Gas Industries by Radiotracers”



### II Día de Hidráulica en la UCAB

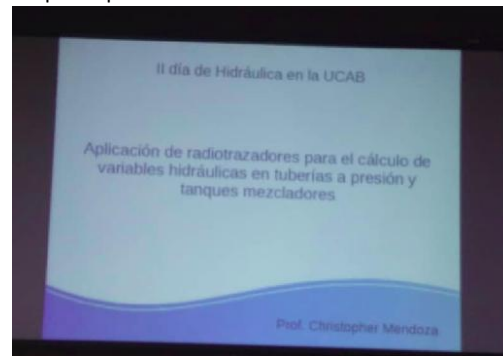
Universidad Católica Andrés Bello

**Date:** June 5<sup>th</sup>, 2019

**Location:** Caracas, Venezuela

**YPN members who assisted to the event:** Christopher Mendoza

Second annual conference on hydraulic engineering at the Andres Bello Catholic University focused on the dissemination of research in the sector. Christopher was also a participant in the event.



### Conference “Water at the core of change” accelerate to achieve the Sustainable Development Goals Agence française de développement AFD, PFE, CNRS

**Date:** May 26<sup>h</sup>, 2019

**Location:** Paris, France

**YPN members who assisted to the event:** Verónica León

Exchanges with local actors, citizens, decision-makers, researchers and elected officials on how to overcome challenges for achieving the Sustainable Development Goals (accelerate the implementation of the 2030 Agenda).





**MOOC Water security and the Sustainable Development Goals**

UNESCO PHI and "Universidad Nacional del Litoral"

**Date:** August 5<sup>th</sup> – October 30<sup>th</sup>, 2019

**Online participation**

**YPN members who assisted to the event:** Karol Sanchez, Veronica Leon

The main objective of the course was to promote the development of capacities with an integral vision that contributes to guarantee water security as a way to achieve the Sustainable Development Goals in Latin America and the Caribbean. Both of the YPN members obtained the course certificate.

Curso a distancia para tomadores de decisión  
**LA SEGURIDAD HÍDRICA Y LOS OBJETIVOS DE DESARROLLO SOSTENIBLE**

Se certifica que Karol Yuraima Sánchez Luquez, DNI 95.295.993, ha aprobado el Curso «La Seguridad Hídrica y los Objetivos de Desarrollo Sostenible», coordinado por la Cátedra UNESCO Agua y Educación para el Desarrollo Sostenible, de la Universidad Nacional del Litoral, Facultad de Ingeniería y Ciencias Hídricas (UNL-FICH). Dictado entre el 05 de agosto y el 30 de septiembre de 2019, con una duración de 24hs.



Dra. María París  
Coordinadora Académica del curso

MSc. Mario Schreiner  
Director de la Cátedra UNESCO Agua y Educación para el Desarrollo Sostenible

Dr. Raúl Peñalba  
Decano FICH - UNL



Curso a distancia para tomadores de decisión  
**LA SEGURIDAD HÍDRICA Y LOS OBJETIVOS DE DESARROLLO SOSTENIBLE**

Se certifica que Verónica María León Marín, 190331352564 ha aprobado el Curso «La Seguridad Hídrica y los Objetivos de Desarrollo Sostenible», coordinado por la Cátedra UNESCO Agua y Educación para el Desarrollo Sostenible, de la Universidad Nacional del Litoral, Facultad de Ingeniería y Ciencias Hídricas (UNL-FICH). Dictado entre el 05 de agosto y el 30 de septiembre de 2019, con una duración de 24hs.



Dra. María París  
Coordinadora Académica del curso

MSc. Mario Schreiner  
Director de la Cátedra UNESCO Agua y Educación para el Desarrollo Sostenible

Dr. Raúl Peñalba  
Decano FICH - UNL



**Social meeting – members YPN Venezuela in Argentina**

**Date:** July 9<sup>th</sup>, 2019

**Location:** Buenos Aires, Argentina

**YPN members who assisted to the event:** Karol Sanchez, Miguel Romero, Maria Alejandra Martinez

Social meeting between the members of the YPN currently living in Argentina. An occasion to share experiences, ideas and initiatives to develop the activities of the YPN.



**Karellys LEAL, member of the YPN, obtained her Masters degree in Geological Sciences (Central University of Venezuela)**

**Date:** November, 2019

**Location:** Caracas, Venezuela

UNIVERSIDAD CENTRAL DE VENEZUELA  
FACULTAD DE INGENIERÍA  
COMISIÓN DE ESTUDIOS DE POSTGRADO

**VEREDICTO**

Quienes suscriben, miembros del jurado designado por el Consejo de la Facultad de Ingeniería de la Universidad Central de Venezuela, para examinar el Trabajo Especial de Grado presentado por la **ING. KARELLYS LEAL**, portadora de la Cédula de Identidad No V-18.786.910, bajo el título **"DETERMINACIÓN Y EVALUACIÓN DEL POTENCIAL EXPANSIVO EN ARCILLAS, MEDIANTE LA VALIDACIÓN DE UN NUEVO DISPOSITIVO PARA LA MEDICIÓN DE LA PRESIÓN DE EXPANSIÓN EN SUELOS ARCILLOSOS"**, a fin de cumplir con el requisito legal para optar al grado académico de Magister en Geofísica, dejan constancia de lo siguiente:

- 1.- Leído como fue dicho trabajo por cada uno de los miembros del jurado, se fijó el día 26 de noviembre de 2019, a las 02:30 p.m., para que la autora lo defendiera en forma pública, lo que este hizo en el aula 312 de Postgrado de la Escuela de Geología, mediante un resumen oral de su contenido luego de lo cual respondió a las preguntas que le fueron formuladas por el jurado, todo ello conforme con lo dispuesto en el Reglamento de Estudios de Postgrado.
- 2.- Finalizada la defensa del trabajo, el jurado decidió aprobarlo, por considerar sin hacerse solidario con las ideas expuestas por el autor, que se ajusta a lo dispuesto y exigido en el Reglamento de Estudios de Postgrado.

Para este veredicto, el Jurado, los profesores, estimaron que la obra examinada representa en su conjunto un aporte importante. Esta investigación presenta un enfoque novedoso y el jurado por unanimidad le asigna la calificación de "APROBADO".

En fe de lo cual se levanta la presente ACTA, a los VEINTISEIS (26) días del mes de NOVIEMBRE del año 2019, conforme a lo dispuesto en el Reglamento de Estudios de Postgrado, actuó como Coordinador del Jurado el Dr. Dulcio Marcial.

Karellys's Master thesis consisted on the "Determination and evaluation of expansive potential in clays, through the validation of a new device for measuring the expansive soil pressure in clay soils". **Congratulations, Karellys!**

**Ingrid Silva, Member of the YPN Venezuela, presented her Licentiate thesis at the Luleå University of Technology**

**Date:** March 29<sup>th</sup> 2019

**Location:** Luleå, Sweden

Ingrid defended her Licentiate thesis titled "Suffusion of glacial till dam cores - An experimental investigation". The defense is part of her Ph.D. work on internal erosion in embankment dams. The Ph.D. focuses on assessing the effects of hydraulic loads on the initiation of internal erosion by suffusion in embankment dams with a core of glacial till. Glacial till, or moraine is a type of soil typically used in the core of dams located in areas once glaciated, such as U.S.A., Canada, Russia, Great Britain, New Zealand, Australia, and Scandinavian countries.

In the picture below, Ingrid is greeting her discussion leader, Prof. Cristina Jommi from Polytechnic of Milan, together with her Supervisors Prof. Peter Viklander and Prof. Jan Laue from Luleå University of Technology. **Congratulations, Ingrid!**



**Forum on the 1999 Vargas torrential floods  
"Los Aludes Torrenciales de 1999 en Vargas: 20 años después"**

**Date:** Dec 4<sup>th</sup> - 6<sup>th</sup>, 2019

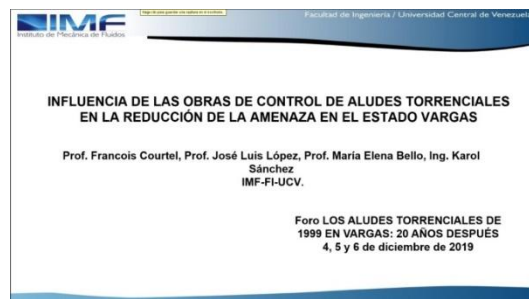
**Location:** Caracas, Venezuela

**YPN members who participated in the event:** Karol Sánchez, Christopher Mendoza, Verónica León.

This was an important event for the hydraulic society of Venezuela, 20 years after the Vargas disaster. The event presented a global balance of the efforts made in the field of integrated management of hydrometeorological risks and an evaluation of the Disaster Risk Management policies that have been implemented at the Vargas state.

Members of the YPN collaborated in the event through technical presentations (with the presentation of papers) as well as in the logistic organization of the event.

Members of the YPN, Karol Sanchez and Veronica Leon have both worked in research works related to the 1999 Vargas torrential floods.



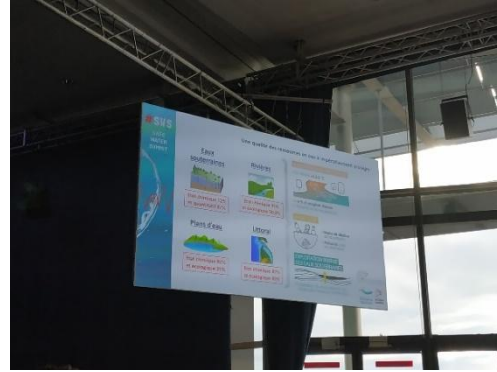
### **Safe Water Summit**

**Date:** Nov. 18<sup>th</sup>, 2019

**Location:** Toulouse, France

**YPN members who assisted to the event:** Veronica Leon

The Safe Water Summit was a national event organized by the French Ministries of Ecology and Health and the French Water Agency Adour Garonne. The event gathered actors from different sectors: public institutions, private sector, science and society. The main subjects of the summit were water issues linked to human health: water pollution issues, public policies related to safe water, water and the sustainable development goals.



### **Hydropower nordic workshop**

**Date:** August. 28<sup>th</sup>-29<sup>th</sup>, 2019

**Location:** Luleå, Sweden

**YPN members who assisted to the event:** Ingrid Silva

The HYDROPOWER Nordic workshop in Luleå took place on 28-29 August and brought together experts from both academia and industry. It was the first of three workshops across Europe to develop a Research and Innovation Agenda and a Strategic Industry Roadmap for the hydropower sector. <https://hydropower-europe.eu/latest-news/nordic-workshop/>



### **8<sup>th</sup> HYBAM scientific meeting**

**Date:** September 2<sup>nd</sup>-6<sup>th</sup>, 2019

**Location:** Toulouse, France

**YPN members who assisted to the event:** Veronica Leon

The 8<sup>th</sup> HYBAM scientific meeting took place in Toulouse, and its central topic was "Environmental threats & climatic changes". Professor and researcher, Jose Luis Lopez Sanchez from the Central University of Venezuela was invited to share a conference entitled "The extraordinary flood of the Orinoco River in 2018". In the picture below: Jean-Michel Martinez (Director of the HYBAM Observatory), Prof. Jose Luis Lopez Sanchez, Veronica Leon and Prof. Francois Courtel (Fluid Mechanics Institute, Venezuela).





- **Publications**

“Evaluation of sediment control works in the Camurí Grande basin, Vargas state, Venezuela” K. Y. Sánchez & F. Courtel, published in the Special Issue of Hydrolink on Dam Reservoir Sedimentation Part 3, July 2019.

“El Paseo del Bajo. Algo más que una gran obra de Ingeniería” Part one and two. A. Guitelman, C. Dunkerley, K. Sánchez y H. Bersanker. Publisher in CPIC (Consejo Profesional de Ingeniería Civil) Magazine, pag. 14 - 18. Buenos Aires, Argentina. September 2019.