



Arturo Marcano – professor

### 'It is good to be back at the place where IAHR has started'

Arturo is a Professor at the Universidad Catolica Andres Bello, Venezuela. He has been a member of IAHR since 1982 and Council Member since 2011.

- This congress is not only about the regular sessions but also the parallel activities, which provide a great chance to meet old friends and colleagues, as well as new young researchers.
- Knowledge networks find a great place in this type of events and collaboration projects can start on this congress.



Fortunato Carvajal Monar – senior coastal and river engineer

### Canal del Dique System Restoration

Fortunato Carvajal Monar has 28 year of experience in international projects. He is a Senior Coastal and River Engineer with Royal HaskoningDHV in The Netherlands. They have given me the chance to have a Keynote in this congress.

- The Canal del Dique System Restoration project is focused on the applied hydraulic to environmental services, and is one of our showcases for integration of systems and tools for solving one critical problem in Colombia considering different aspects (environment, social and economic).

- This congress shows the growth of IAHR as we can meet people from different countries and continents, and the networking opportunities are great. Also the growing of Eco-hydraulic is important for several projects.



Vladimir Moya-Post-Doc

### 'Final user tools for assessment of climate change and natural disasters'

Vladimir Moya, Post-Doc at Tohoku University Sendai-Japan, is developing tools for sensitivity and uncertainty analysis using a Bolivian case study can reduce the gap between science and practice. He has enjoyed the conference and despite some minor logistic problems (registration payments, electricity plugs, printed version of presentations) the venue is great and comfortable. He is back in the Netherlands as the IAHR Congress is a great opportunity to show research and to get in contact with other researchers worldwide.

Articles by: Carlos Salinas

### Don't forget that today (1 July) is the YPN technical excursion and dinner.



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36 IAHR World Congress-YPN

Entering the world of hydro-environment engineering and research



We will also be sharing information and updates online-so please join us on the internet. You find can our information in this newsletter,

### To Sink or not to sink, that is not the question

Hydro-environment engineering and research is integral in understanding and improving water management. Young people, students and young professionals, play an important role in generating new, innovative and creative ideas in this process. This year at the 36th IAHR World Congress, at the World Forum Den Haag, special emphasis is placed on Deltas of the future and the link to hydro-environment engineering and research. Additionally, the Congress has offered a number of benefits to students and young professionals, acknowledging their role in our water future. The volunteers of the YPN will be sharing Congress updates, highlights, keynotes, messages and reflections in this newsletter. Humans are sinking deltas 4 times faster than sea level rise” is the statement made by

Prof. James Syvitski, in his keynote speech made on Deltas of the future today. Sea level rise in the Netherlands is 3 mm/year which is pale in comparison to subsidence of Jakarta at the rate of 100 mm every year. Deltas are hosting most of the mega cities in the world. Deltas there were mangroves once were turned into rice bowls and into protein bowls in form of fish and shrimp farms. A fish farm sinks about a meter every 4 years. Is that worth? We are sinking the land to satisfy our appetite. Rapid engineering has lead to building at least one dam a day on average over the last 130 years and this has reduced sedimentation and shrunk the deltas. The irony is that we have started relying on massive engineering structures to solve this issue, which is evident from the proposal to build an 11,000 km sea wall in China that will surpass the Great Wall of China in length. The issue is not about fight or flight, to protect or get out of the way, but to adapt to these challenges in the dynamic environment. Article by: Mohanasundar Radhakrishnan



### Lets thank our volunteers!

The YPN volunteers have played an important role in preparing for and running aspects of the IAHR forum. Some YPN volunteers have been preparing for the IAHR conference weeks in advance. Volunteer positions include; gathering volunteers, co-chairing sessions, assisting with conference arrivals, the YPN forum and corner, reporting, assisting in exhibitions and registration and organizing the YPN night and technical tour. And lets not forget, most importantly, the YPN volunteers are here to assist the 36th IAHR Congress in becoming a important forum for young professionals.

Look out for the YPN volunteers in orange T-shirts, ready to help you in anyway possible and provide you the information you need about the YPN.



YPN presentation-YPN Corner



YPN Volunteers Pre-Launch Meeting...Teaming up to Deliver the Best



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Attendants at some of the presentations on Tuesday

### A diverse session on environment and eco-systems

One is not surprised by the amount of diversity in the ecosystem in the Amazon basin. Equally surprising was the diversity in the topics and cultural backgrounds of presenters in the Amazon room at the conference this morning. What brought together the diverse speakers from Canada, China, The Netherlands, Japan, UK and Korea together was their interest and concern with the environment and ecosystems. Mr. Christos Katopodis from Canada presented the recent advances in eco hydraulics. He surprised the audience with the fact the latest turbines with high fish survival rates draws their inspiration from the ancient Archimedes screw pump. The latest computational fluid dynamics help the ecologists to design efficient fish ladders to facilitate the migration of fishes across hydraulic barriers. The success of such ladders is determined by assessing the movement of fish through them. Ms. Keiko Muraoka from Japan presented a novel way of employing molecular techniques to evaluate fish migration. Ms. Jeniffer Garbe from UK demonstrated the use of habitat model to show how different flow regimes affect the fresh water species, which is major concern in over abstracted water ways. Ms. Xindi Chen from China in stated that such man made impacts on ecologically sensitive landscapes could be studied using Driver, Pressure, State, impact and Response (DPSIR) with suitable indicators. The chair of the session Ralph Schielen from the Netherlands presented an integrated research on multifunctional rivers in The Netherlands based on his experience on the room for the river program where concerns as diverse from operations to ecological stability have been addressed using myriad ways that are equally diverse such as flattening gabions to a ef-

fective risk communication strategy. The session came to an end with Dr. Hyoseop Woo from Korea who took on the audience by surprise through his findings that the rivers in Korean peninsula are turning green because of damming and changing rainfall with his presentation aptly titled "From White to green river – why are they changing?". All these findings help us to retrospect on the changes – positive and negative - in environment and ecosystems that are brought by natural and anthropological changes.

Article by: Mohanasundar Radhakrishnan

### Thinking about the future

Climate change can only be tackled by a massive developmental global shift in our behaviors towards sustainable resource utilization. Extreme events, including floods and droughts, due to climate change are getting more frequent and more extreme. By sitting all together and debating for a common goal of making this world a safer place for our next generations, I am quite hopeful that we can withstand the extreme face of Mother Nature. As water is the most vital substance on this planet which connects us all by the composition of life right from the beginning and no doubt it would make us more integrated to work for the cause of our long-term and peaceful existence on this planet. Article by: Ali Ajaz



YPN volunteers busily preparing Congress show bags  
A team of 10 volunteers, 1200 bags and a full Sunday.  
Mission Conference goodies – Accomplished!

### Scheldt Estuary

Very interesting presentations about the Scheldt Estuary were held on Monday, providing important outcomes to support decision making for this Estuary and other areas where similar models can be applied. Some of the discussed topics and research questions are listed below:

- Which would be the best strategies for the disposal of dredged sediments? *(Zheng Bing Wang)*
- How does the morphology evolve over time in the estuary? Contrary to common perception, process based models even seem to perform better for longer time scales. *(Gerard Dam)*
- What are the necessary steps to develop new numerical models to predict morphodynamics, applied to the mouth of the estuary *(Jebbe Van der Werf)*

- What are the expected challenges when adding functionalities to an existing model, such as modelling the low through culverts. *(Maria João Teles)*
- How to select and implement good calibration strategies for new morphodynamic models. *(Joris Vantede)*

Articles by: Rui Lima



Attendants at some of the presentations on Tuesday