**Notice on inviting young staff and postgraduates to participate in HydroAsia 2023 Study Group**

**What is HydroAsia?** HydroAsia is an innovative intensive course dedicated to research water issues in Asia and based on the collaborative engineering concept.

HydroAsia has been initiated in 2006 following the HydroEurope experience (<https://hydroeurope.org>), developed by the EuroAquae consortium (https://www.euroaquae.eu) and hosted by Incheon National University, Korea. The purpose of HydroAsia is to invite international teams to work on a specific water issue (eg. floods and inundations) and to offer practical solutions for mitigating its negative effect. The analysis of the case study is supposed to be conducted with various hydro-informatic tools (hydrological and hydraulic models). Quality of results, best strategy, and uncertainties within data are some of the topics, which will be discussed with your team members and the tutors who are supporting the activities. The main goal of HydroAsia is to develop competences in hydrological/hydraulic modelling and techniques for teamwork, and coordination in international environment. The annual HydroAsia event invites about 60 participants from around 12 nationalities. The event will last 5 days this year combining special lectures, teamwork, and field trip.

HydroAsia 2023 Research and Training courses are arranged as follows:

**When?** The first choice is from August 21 to 25, the alternative one is from August 14 to 18, the specific schedule will be determined in early July;

**Where?**  Incheon National University, Korea;

**What will you learn?** In terms of the topic of flood mitigation and ecological restoration of Seung-gi Stream(in the suburbs of Incheon, South Korea), participants will be divided into several groups and participate in a number of relevant thematic sessions. Each group is required to analyze past flood events (including inundated areas and their damages), build hydrological and hydraulic models to simulate observed flood events, and propose corresponding mitigation and ecological restoration solutions.

**Who will be invited?** IWHR plans to invite a group of 12 to 16 members to Korea, including 4 to 5 young staff (as guidance experts), 1 international expert and 8 to 10 international and Chinese graduate students.

**Who pays?** The cost of young staff shall be borne by their research projects, and the cost of students shall be borne by their supervisors. The Incheon National University provides free accommodation for 2 students/room and 1 staff/room.

**What you will gain?** Students will conduct research under the guidance of experts (including experts from IWHR), get friends from different countries within the field of water conservancy, expand the network of water conservancy research, get more information about other water-related institutions in Asia, and accumulate working and learning experience under multi-national and multicultural backgrounds.

In addition, young staff of IWHR will obtain a HydroAsia guidance expert certificate and 60 credits learning hours; Students will receive the study certificate issued by the sponsor, and an academic exchange experience for postgraduate students.

Places are limited, please contact Graduate School to apply.

Deadline: May 25, 2023

Contact: Gan Chun, 68786122.

Graduate school

May 15, 2023

**About HydroAsia**

HydroAsia is an innovative course dedicated to water issues in Asia and based on the collaborative engineering concept. The partner institutions wish to innovate massively in the pedagogic approach and to promote a completely new approach that is based on the concept of “problem-oriented project based learning” (POPBL). The experience already gathered over more than 20 years in the HydroEurope has demonstrated that POPBL can provide a relevant approach in water domain. The introduction of a multidisciplinary course within which almost all generic competencies required for employability and sustainability can only be delivered through a complex curriculum and innovative teaching and learning as opposed to traditional teaching method. The basic principles of POPBL can be summarized as:

• Student-centred and able to motivate and gain commitment among students;

• Problem-oriented and not subject-oriented;

• Focus is more on learning process in finding solution rather than recall knowledge Project-Based which has goal and action for change;

• Exemplarity instead of generality;

• Promote group work/teamwork, social and communication skills.

The objective of the HydroAsia is to develop a unique set of pedagogic resources dedicated to the implementation of hydro-informatic solutions (numerical modelling tools) for water resources and water related hazards management. This set of resources (course material, exercises, data sets, modelling environment integrating numerical models and communication services) is jointly elaborated by the project partners. The partners integrate these new resources in specific training modules integrated within their master course and intensively use an innovative project oriented pedagogic approach towards the participants. The development of the resources and their innovative use allow promoting to young professionals the new approaches for water resources and water related hazard management. Most important, the practice gained through these training modules contributes to increase competences and professional skills of young engineers in charge water resources at the international scale.

Since the year 2000, many countries have adopted measures as legislative framework aimed at better manage water resources as well as reduce, through the right measures, the risks and impacts of floods to human well-being and the environment. Experience has shown that the most effective way is through the adoption of an integrated approach to flood management – one that recognizes both the opportunities provided by floodplains for socioeconomic activities and that manages the associated risks – which is essential for the sustainable exploitation of water resources. The success of an urban planning project is thus based on adopting an across-sector approach and know-how based on:

• Sound knowledge of legislative frameworks and economics (micro-economics, public finance and government procurement);

• Fundamental knowledge of earth science (e.g. hydrosphere and atmosphere)

• Strong skills in numerical modeling and data processing;

• Experience of using analysis and synthesis tools and associated methodologies;

• Familiarity with decision support system (DSS) and communication techniques.

**HydroAsia has the ambition to equip participants with new competences and skills for water issues management. Join us and discover HydroAsia spirit!**