Eighth International Conference and Exhibition on Water Resources and Renewable Energy Development in Asia

Shangri-La Hotel, Kuala Lumpur, Malaysia ~ 14 - 16 March 2023

Organized by: THE INTERNATIONAL JOURNAL ON HYDROPOWER & DAMS

in collaboration with:

Supporting Organizations include:

For regular updates visit: www.hydropower-dams.com/asia-2023
MISSION OF ASIA 2023

As with the previous conferences in this series, which took place in Bangkok, Danang, Kuching, Chiang Mai, Colombo, Vientiane and Danang (again), the emphasis will be on helping to turn renewable energy and water resources development policies into practice. By bringing together a multidisciplinary group of international experts, to focus on issues of specific relevance to Asia, we aim to stimulate new partnerships, and produce concrete outcomes from the sessions and workshops. All those engaged in promoting, planning, financing, developing, constructing, supplying or studying water resources and renewable energy schemes in Asia should attend.

WELCOME TO MALAYSIA

The Aqua~Media International team, with the support of the Malaysian Government, the Malaysian Committee on Large Dams, and the State Power utilities, welcomes the global water and energy community to the vibrant, multicultural city of Kuala Lumpur, Malaysia.

Peninsular Malaysia, as well as Sarawak and Sabah, have broad experience of large and small hydropower development and multipurpose dams. Study tours will visit some of the large cascade developments in Peninsular Malaysia. Hydropower supplies about 20 per cent of Malaysia’s approximately 34 GW of installed generating capacity, with hydro supplying more than 20 TWh/year. The Government of Malaysia is strongly committed to increasing the share of renewable energy in the country’s generation mix, with a target to add 4 GW of renewables across the thirteen states by 2030.

The country has about 104 large dams. The most recently completed in Peninsular Malaysia are the Pua dam for the 250 MW Hulu Terengganu hydro plant (completed in 2015), and Susu RCC dam for the 372 MW Ulu Jelai hydro plant (commissioned in 2016) The latest large scheme going ahead in Sarawak is the 188 m-high Baleh CFRD, following the completion of Bakun and Murum. Some of the most important schemes in Peninsular will be visited during post-Conference study tours.

KUALA LUMPUR

The host city is easily accessible from all parts of the world: Kuala Lumpur International Airport is one of the leading aviation hubs of Asia, with direct flights operating there by more than 70 airlines.

While being surrounded by lush rain forests not too far away, Kuala Lumpur, the capital city and cultural, financial and economic centre of Malaysia, is one of the fastest growing metropolitan regions of Southeast Asia. The city skyline is dominated by the gleaming Petronas twin towers, and numerous state-of-the-art office blocks and hotels. But some traditional Malay buildings and colonial-style architecture can also be found, as well as the colourful markets in the Bukit Bintang and Chinatown areas.

The Shangri-La hotel, in the heart of the city, will provide a comfortable and elegant setting for the conference.
**Monday 13 March**

- From 09.00 hrs: 
  - Conference Registration opens 
  - Exhibition set-up for custom stands only
- 09.00 hrs: 
  - Workshops on: Designing a small hydro plant 
  - Hydro finance 
  - MYCOLD training course (to be confirmed)
- 11.00 hrs: 
  - Excursion departs 
  - City tour with lunch
- 14.00 hrs: 
  - Access to stands for all exhibitors
- 19.00 hrs: 
  - Chairpersons’ Meeting followed by 
  - Speakers’ Briefing at the Shangri-La Hotel

**Tuesday 14 March**

- 09.00 hrs: 
  - Opening Plenary Session: Opening speeches 
  - Welcome to ASIA 2023 and ICDSME 2023
- 11.00 hrs: 
  - Lunch
- 14.00 hrs: 
  - Parallel Sessions: 
    - 1 - Changes in project finance 
    - 2 - Environment 
    - 3 - Hydro planning tools
- 17.30 hrs: 
  - Networking party with refreshments in the Exhibition Halls 
  - (Evening free for private parties)

**Wednesday 15 March**

- 09.00 hrs: 
  - Parallel Sessions: 
    - 7 - Development opportunities 
    - 8 - Civil design and construction 
    - 9 - IA session
  - Coffee
- 11.00 hrs: 
  - Parallel Sessions: 
    - 8 - Civil design and construction 
    - 10 - O&M and refurbishment 
    - 11 - Climate
  - Lunch
- 14.00 hrs: 
  - Parallel Sessions: 
    - 12 - Hydropower equipment 
    - 13 - Tunnels and underground works 
    - 14 - Cross-border collaboration
  - Coffee
- 17.30 hrs: 
  - Networking party with refreshments in the Exhibition Halls 
  - (Evening free for private parties)

**Thursday 16 March**

- 09.00 hrs: 
  - Parallel Sessions: 
    - 18 - Hazards and challenging sites 
    - 19 - Small hydro
  - Coffee
- 11.00 hrs: 
  - Parallel Sessions: 
    - 20 - Dam safety 
    - 21 - Capacity building
  - Lunch
- 14.00 hrs: 
  - ICDSME parallel sessions continue 
  - (topics to be announced)
- 17.30 hrs: 
  - ICDSME parallel sessions continue 
  - (topics to be announced)
- 19.30 hrs: 
  - ASIA 2023 Gala Dinner 
  - Thean Hou Temple

**Friday 17 March**

- 09.00 hrs: 
  - ICDSME parallel sessions continue 
  - (topics to be announced)
- 11.00 hrs: 
  - Lunch
- 14.00 hrs: 
  - Study tours depart 
  - ICDSME parallel sessions continue
- 17.30 hrs: 
  - ICDSME Closing session

---

**Second ICDSME hosted by MYCOLD joins ASIA 2023**

Aqua-Media is delighted that the Malaysian National Committee on Large Dams has decided to host its second International Conference on Dam Safety Management and Engineering alongside ASIA 2023.

There will be a joint Opening Ceremony for both events on 14 March, contributions from MYCOLD to various ASIA 2023 sessions from MYCOLD members, and then the ICDSME Conference will take place on 16 and 17 March. Additional training workshops organized by MYCOLD will be announced later.

The first very successful Conference in this series took place in Penang, Malaysia, in November 2019 (see H&D Issue 6, 2019). The event underlined the major focus on dam safety in Malaysia, and progress which has been made in capacity building and the establishment of national guidelines. The book MyDAMS, launched at the time by MYCOLD, is a ‘live document’ regularly updated, which aims to bring dam safety risks to the lowest possible level.

ICOLD President Michael Rogers took part in the event, as well as high level experts from Peninsular Malaysia and Sarawak, Canada, Australia, USA, Korea and France.

Details of the programme for the ICDSME 2023 conference and associated training courses will be announced shortly.

The photo below shows Dato Dr Xavier Jakakuma, Malaysia’s Minister of Water, Land and Natural Resources opening the first conference in 2019, prior to giving a keynote address. On the right is Prof Datin Lariyah Mohd Sdek, Chair of MYCOLD.
Monday 13 March: Half day, afternoon
Shangri-La hotel
PRIVATE SECTOR ROLE IN FUTURE HYDROPOWER
Led by Dr Judith Plummer-Braeckman,
University of Cambridge, UK

Hydropower is cost effective and can offer many additional benefits beyond power generation. However, these projects are highly capital-intensive and site-specific, with a long preparation phase, lengthy construction period, and multiple environmental and social concerns. As a result, they are often regarded as risky investments, especially by private sector investors, making it difficult to attract financing for new projects. Yet hydropower accounts for the largest share of renewable energy generation globally and will, as such, play a key role in facilitating the transition to a zero-carbon economy and improving energy access in emerging markets. It could also support the transition to a greater proportion of intermittent renewables in electricity grids through providing energy storage and grid stability services. The limited nature of public resources means that more private sector financing will be needed in the future to facilitate this transition.

The University of Cambridge Institute for Sustainability Leadership (CISL) will present a workshop which aims to bring together a diverse group of stakeholders, with an interest in finance, to discuss the role that the private sector may play in future investment in hydropower. In particular, we will review the finance options together with the risks and possible risk mitigation strategies. The discussion will offer the participants an opportunity to pursue the current thinking around these topics as well as have an input to the subsequent stages of our research on the financing of hydropower projects.

13 March Full day
Shangri-La hotel
DESIGN A SMALL HYDROPLANT IN A DAY
Led by Prof David Williams and Gordon Black,
Learning Hydro, UK

Many factors are considered in the design and construction of the optimum hydropower project.
All parts of a scheme are interrelated and interdependent. Change one component and all others will be affected. This workshop, following successful ones held in Vientiane, Montreux, Marrakech, Seville, Danang, Gdansk, Namibia and Porto, is aimed at people who are, or will be, involved in hydropower development as part of rural electrification programmes. It will cover run-of-river hydropower projects in the ‘pico’ to ‘mini’ range (1 kW to 1 MW capacity).
As this is a diverse form of energy production, there are always areas which are unfamiliar to people, despite many individual...
specialisms. This workshop aims to fill in the gaps, and help people to gain a good basic grounding in the topic. All relevant aspects will be covered, from rainfall to energy evaluation, including:

- Analysis of scheme location and definition of potential catchments;
- Turning rainfall into an available flow range from a catchment and development of a flow duration curve;
- Power and energy generated calculation;
- Intake structures, channel and/or pipeline routes and sizing;
- Powerhouse design and equipment;
- Turbine selection;
- Generator, controls and switchgear options; and,
- Grids, national and local.

This will be a ‘hands-on’ workshop, which will involve the participants, working in groups, to develop an actual hydropower project during the day. After presentations on the individual scheme aspects, the groups will put together the components of the project. This will follow through to the completed design.

PROGRAMME HIGHLIGHTS

The original programme launched in 2019, for what was originally ASIA 2020, is being revised and expanded to ensure that all papers are up to date and topical. There will also be scope to accept some additional contributions.

As usual, topics have been chosen which relate particularly to Asian hydropower and water resources development, and case studies will reflect both achievements and challenges.

Much of the conference will be devoted to developments in technology, including efficiency improvements in traditional machinery, to new systems based on artificial intelligence applied to planning, design and construction.

There will be overviews of potential and development opportunities in the form of short country reports, and then discussions on economic, legal, financial and contractual aspects, a key theme being how to accelerate the project implementation stage and reach financial closure.

Plenty of speakers will discuss the design and construction of new dams and hydro plants, both large and small schemes, including cross-border projects, multipurpose schemes, and cascade developments, along with appurtenant works such as tunnels and spillways.

Taking care of existing infrastructure will be another important topic, with strong emphasis on timely maintenance, upgrading and refurbishment, and enhancing safety.

Reports will be included on examples of the integration of renewable energy systems, especially floating solar PV on hydropower reservoirs; Asian nations are leading the way in this important emerging technology.

Challenges such as natural hazards (floods, avalanches, earthquakes, and so on), and reservoir sedimentation management will be discussed by experts in these respective fields.

Officers from the principal professional associations for water and energy (ICOLD, ICID, IEA and others) will contribute to the programme, as well as representatives of the international financial institutions such as the World Bank, Asian Development Bank and IFC.
SOCIAL PROGRAMME

As always, the ASIA 2023 conference will offer a full social programme to enable delegates and accompanying persons to reunite with international friends and colleagues, and to make new contacts, in a relaxing atmosphere. This will be a chance to enjoy some specialities of Malaysian cuisine as well as some musical and cultural entertainment.

Chairmen and speakers will enjoy dinner on 13 March (after their briefing about the conference sessions), at the elegant Shang Palace Chinese restaurant within the Shangri-La hotel.

The Welcome reception will take place at the tropical terrace area on the ground floor of the hotel. As usual, on the second day of the event there will be a networking party in the exhibition halls, after the conference sessions.

The elegant Thean Hou Temple, a six-tiered Chinese temple, will be the venue for the ASIA 2023 Gala Dinner. Delegates will be able to enjoy aperitifs in the grounds, with an opportunity to view the gardens, ornate statues, carvings, and water features before dinner.

ACCOMPANYING PERSONS’ PROGRAMME

A package of three cultural and touristic visits have been arranged for accompanying persons during the three days of the conference. Tours will not depart before 09:00 hrs and will return in good time for some relaxation and free time before the evening programme.

On the first day there will be visits to the KL Bird Park (which hosts 300 species of birds), and the spectacular orchid gardens. Lunch will be taken at the Tamarind Springs restaurant, where Malaysian specialities will be enjoyed in the ambience of a tropical rainforest.

The next excursion will be to the famous Batu Caves, within a limestone hill dating back millions of years, and housing a number of ornate temples. This will be followed by a visit to the Orang Asli museum, and a viewing of the National Palace.

The third day will feature a lesson in Malaysian cookery, so that the group can prepare lunch based on traditional ingredients, and in the afternoon there will be a visit to the Selangor pewter factory (with a chance to learn about this craft and produce a dish).

Accommodation has been blocked in Kuala Lumpur, at a number of hotels to suit all budgets, and these can be booked via the registration site. Post conference tour arrangements are being updated, and will be announced online soon.

Check updates at: www.hydropower-dams.com
EXHIBITION AND SPONSORSHIP

Shangri-La Hotel, Kuala Lumpur, Malaysia ~ 14 - 16 March 2023

A major technical exhibition will run alongside the ASIA 2023 conference (14 - 16 March), showcasing the latest developments in the water and renewable energy sectors, as well as the activities of professional associations, and the services of specialist consultants, contractors and equipment suppliers. All lunch and refreshment breaks will take place in the spacious exhibition halls, and there will be a networking party after the conference sessions on 15 March to provide an additional opportunity for meetings between exhibitors and international delegates.

Exhibition stands are available in units of 6 m², and custom-built units can be arranged. Some favourable positions still remain; if you would like to book a place, we recommend that you contact the sales team as soon as possible (see details below).

Single stands available: 3 x 2 m (6 m²) = US$ 3550  
= Reserved  
= Catering

A number of sponsorship opportunities are available, such as conference bags, water coolers, coffee and lunch breaks, WiFi, and various social events. Full details can be obtained from our Sales & Marketing team, and are also available on our website.

Meanwhile, for further information or to reserve an exhibition stand, contact:
Tanita Chondrunaiko  •  Tel: + 44 20 8773 7250  •  Email: sales@hydropower-dams.com

www.hydropower-dams.com/asia-2023/exhibition-plan
AFRY, Thailand
Andritz Hydro, Austria
Armatury Group a.s., Czech Republic
Artehia, France
ATB Riva Calzoni, Italy
AXTER SAS, France
Bently Nevada, a Baker Hughes business, Malaysia
Carpi, Switzerland
Cementys, France
CKD Blansko, Czech Republic
Dolsar Engineering Inc Co, Turkey
Dynavec, Norway
Enerquip, Norway
F. Nencini
Feroinvest DDO, North Macedonia
Fichtner GmbH & Co.KG, Malaysia
Gamesa Electric, Spain
Gilkies, UK
Glenfield Asia Pacific, Australia
Global Hydro Energy GmbH, Austria
Gugler Water Turbines GmbH, Austria
Hibbard Inshore, LLC, USA
ICOLD, Norway
ICOLD Consulting Engineers (Asia) Ltd., Thailand
Indar, Spain
Industrial Processors & Metallizers (P) Ltd., India
Kansai Electric Power Company
KGal Consulting Engineers Ltd, UK
Mapei, Malaysia
Mavel a.s, Czech Republic
Montanhydraulik GmbH, Germany
Mott MacDonald, Singapore
Muhr, Germany
Multiconsult, Norway
Norconsult, Norway
Norwegian Pavilion
Quest Integrity NZL Ltd, New Zealand
Rainpower, Norway
Rittmeyer AG, Switzerland
SMEC (M) Sdn Bhd, Malaysia
Soletanche Bachy / Freyssinet, France
Stahlhandel Grötzitz GmbH, Germany
STM Srl - Sviluppo Tecnologie Meccaniche, Italy
The International Journal on Hydropower & Dams
Tractebel Engie
Trevi Construction Co Ltd, China
Troyer SpA, Italy
Voith, Germany
Vortex Hydra srl, Italy
Whesooe Sdn Bhd, Malaysia
Worthington Products, USA
WWS Wasserkraft GmbH, Austria
Xylem - Sea and Land Technologies, Malaysia
Zeco Hydropower, Italy

Industry sponsors:

![Andritz](image1)
![Voith](image2)
![Muhr](image3)