

Professor Joseph Hun-wei LEE
Candidate for IAHR President (2021-23)
ELECTION STATEMENT

Biography

Prof. J.H.W. Lee is the President of the Macau University of Science and Technology (MUST). Prof Lee is a native of Hong Kong and received all his university and postgraduate education at the Massachusetts Institute of Technology (1969-1977). In 1980 he joined the University of Hong Kong (HKU) where he became Redmond Chair Professor of Civil Engineering in 1995. At HKU, he was Dean of Engineering from 2000 to 2003, and Pro-Vice-Chancellor and Vice-President (Staffing) from 2004-2010. Before he joined MUST in January 2021 he served as Vice-President for Research and Graduate Studies at the Hong Kong University of Science and Technology (HKUST) (2011-2016) and Senior Advisor to the President (2018-2020).

Prof. Lee is recognized internationally for his contributions in hydraulic engineering – in particular the theory of buoyant jets and its applications to environmental engineering. He is a Fellow of the Royal Academy of Engineering and the Hong Kong Academy of Engineering Sciences. He was bestowed Honorary Membership by IAHR in 2015.

Prof. Lee has served on many international advisory bodies and as an independent expert on numerous hydro-environmental projects.

Personal Statement

Water and environment will rank high on the policy agenda of most governments in the coming decade. Population growth, urbanization and climate change give rise to many food, water and energy security challenges. The “second machine age” is also bringing many opportunities for the next generation of hydro-environment research and practice: e.g. smart water management systems for climate resilient cities. On the other hand, IAHR is also facing many challenges: in this age of globalization and ubiquitous data access there is a need for organizations to act swiftly and respond in an agile manner.

I commit to bring my energy, experience and international networks to lead the development of IAHR:

(i) Inspire, disseminate and catalyze state of the art knowledge and thinking

Besides promoting research and practice within the TCs and Regional Divisions, we will develop:

- a) *Eco-hydraulics and nature-based solutions*. A new Editor of *Journal of Eco-hydraulics* has been appointed and we will develop JEH and related forums to a higher level.

- b) Addressing global challenges: Building on the work of past IAHR Presidents, support the development of inter-disciplinary forums such as *Adaptation to Climate Change-induced Impacts*, and *Global Water Security* as IAHR signatures.
- c) Artificial Intelligence (AI) and Water. We will promote thematic events and ventures to synergize IAHR expertise from across the TCs to tap research, innovation and entrepreneurship opportunities.

(ii) Increase global presence

We will develop concrete action plans to significantly bring IAHR presence in Africa to a new level. We will also consolidate and enhance our collaboration with other international organizations that include UN-Water, International Water Association (IWA), The Nature Conservancy (TNC), and IAHR Institute Members.

(iii) Promote diversity and enhance international collaboration

We will continue to enhance diversity - scientific approaches, gender and age, geographical participation, expertise. We will listen to young members for their ideas/suggestions; increase IAHR membership and enhance *Institutional Advancement* to obtain external resources to support IAHR activities.

(500 words)