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## JOINT CONFERENCES 18.06.2024

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Location : EPFL GC B1 10

Online (Webinar):

<https://epfl.zoom.us/j/69394867817?pwd=r6yHA906gUP8X4Qd3OKj7btuui5fGg.hONKluaOQMtAG3WF>

Passcode: 873834

### 17:15 – 17:45 Dam construction development in Lao PDR

Presented by: Mr. Bouathep MALAYKHAM, Director General of the Department of Energy Industry Safety Management, Ministry of Energy and Mines Dams, Vientiane, Laos

#### Abstract

Lao PDR has experienced significant growth in dam construction over the past two decades, driven by the country's abundant water resources and commitment to hydropower development. As the Director General for the Department of Energy Industry Safety Management, Mr. Bouathep MALAYKHAM has been at the forefront of overseeing this important infrastructure development.

In this presentation, Mr. Bouathep will provide an overview of the key trends and achievements in dam construction in Lao PDR. He will discuss the country's hydropower potential, highlight major dam projects that have been completed or are underway, and outline the regulatory frameworks and safety measures in place to ensure the sustainable and responsible development of this sector.

Finally, the presentation will look ahead to the future of dam construction in Lao PDR, exploring emerging technologies, potential regional collaboration, and the country's long-term vision for maximizing the benefits of its hydropower resources while mitigating risks and impacts.

#### Biography



Mr. Bouathep MALAYKHAM has an impressive career in the energy sector in Laos, spanning over 30 years.

Mr. MALAYKHAM began his career in 1993 as a Technical Engineer in the Department of Electricity, Ministry of Energy and Mine, Lao PDR. He steadily rose through the ranks, becoming Chief of the Rural Electrification Division in 2000 and then Chief of the Electric Power Management Division in 2007.

From 2012–Jan 2020 he was Deputy Director General for the Department of Energy Management and from Jan 2020–Feb 2022 he was Director General for the Department of Energy Management.

Since February 2022, Mr MALAYKHAM has held the position of Director General for the Department of Energy Industry Safety Management, Ministry of Energy and Mine.

Academically, Mr MALAYKHAM holds a Master of Science in Engineering degree which he obtained in 1992 from the Tajikistan Polytechnical Institute, during the former Soviet Union era.

Mr Bouathep MALAYKHAM has dedicated his career to the energy sector in Laos, steadily advancing to senior leadership roles over the past three decades. His extensive experience and expertise in energy management and safety make him a valuable asset to the Lao government.

## 17:45 – 18:30 Hydropower Development and Dam Safety in Lao PDR

Presented by: Professor Khampaseuth THEPVONGSA, Vice Dean, Faculty of Engineering, National University of Laos (NUOL) and President, Lao Association on Dams, Vientiane, Laos

### Abstract

Lao PDR, often referred to as the "Battery of Southeast Asia," holds immense potential in hydropower development due to its abundant water resources and favorable geographical conditions. In an upcoming seminar at EPFL University, Professor Khampaseuth THEPVONGSA will provide an in-depth analysis of the current state and future prospects of hydropower development in Laos, emphasizing the crucial aspect of dam safety.

The presentation will cover a comprehensive overview of Lao PDR's hydropower potential, highlighting key projects such as Nam Theun 2 and Nam Ngum 1, as well as those under construction and planned for the future. Professor Thepvongsa will discuss the economic and social benefits derived from these projects, including their impact on GDP, employment, infrastructure development, and rural electrification.

Environmental considerations and mitigation strategies will be addressed, showcasing how Lao PDR balances development with ecological sustainability. The seminar will also delve into the importance of dam safety, outlining the regulatory framework, safety management practices, and the role of the Lao Association on Dams in advocating for and implementing these measures.

Through detailed case studies, challenges, and innovative solutions, the presentation aims to provide valuable insights into the sustainable and safe expansion of hydropower in Lao PDR. Attendees will gain a deeper understanding of the strategic plans, international collaboration opportunities, and research innovations shaping the future of hydropower in the region.

### Biography



Dr. Khampaseuth THEPVONGSA is an accomplished professional in the field of civil engineering and architecture. His educational background includes a Bachelor's degree in Civil Engineering from the National University of Laos, a Master's degree, and a Doctorate degree in Civil & Structural Engineering from Kyushu University in Japan. His academic journey began with a strong foundation at the National University of Laos, where he graduated with first-class honors.

Dr. THEPVONGSA'S career in academia has been impressive, serving as a lecturer and the head of the Civil Engineering Department at the Faculty of Engineering, National University of Laos since 2005. His commitment to teaching and his dedication to the field are evident in his role as an Associate Professor and Vice-dean at the Faculty of Engineering.

Beyond his academic pursuits, Dr. THEPVONGSA is one of the founders and senior adviser of Archineer Associates Co., Ltd., a consulting firm specializing in architecture, urban planning, infrastructure, and hydropower projects. His consultancy services have been sought after for various government, local, and international projects, highlighting his expertise and knowledge in the field.

Dr. THEPVONGSA is actively involved in professional associations and organizations. Holding positions such as President of the Lao Association on Dams and Vice President of the Association of Lao Architects and Civil Engineers showcases his leadership and commitment to the industry. Additionally, his recognition as a Fellow of the ASEAN Academy of Engineering & Technology and membership in the ASEAN Chartered Professional Engineer further exemplify his stature in the profession.

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Throughout his career, Dr. THEPVONGSA has been acknowledged for his outstanding contributions. Certificates of appreciation from institutions and governments, both within Laos and ASEAN, reflect the value of his work and his impact on the industry.

Dr. THEPVONGSA's research and publications add further weight to his expertise. Covering various topics such as pavement roughness, water distribution network analysis, stability analysis of dams, bridge behavior, self-compacting concrete, and wind loading analysis, his research papers have been published in reputable journals and presented at international conferences.