



TNChE Asia 2024 Conference
" Decarbonization, AI and Digital Transformation
for Sustainability in Process Industries "
Presenter's Biodata & Abstract



Full Name : Wison Luangdilok

Organization : H2Technology / Joint Graduate School of Energy and Environment (JGSEE) at KMUTT

Current Position : Principal/Adjunct Professor



Title of Presentation : The Potential of Small Nuclear Modular Reactors (SMRs) in Clean Energy
Transition

Presentation Abstract :

SMRs have been promoted by several organizations including the US government as clean, safe and economical sources of nuclear energy that can be deployed worldwide including in the emerging economies. In this talk, we will first explore answers to the following general questions "Should we consider nuclear energy in our clean energy transition in the fight against climate change? Is it safe, and, how is its economics?" What is the relationship between type of safety technology and the cost of nuclear power plant? We will take a look at how nuclear reactor technology evolves over time from Generation 1 to the current Generation 4 to overcome its own safety issues and how the technology solves the causes of major nuclear reactor accidents that had occurred. We will then take a look at the outlook of the cost of SMRs based on experiences in "large" nuclear plant constructions in the past two decades.