



**ICT Virtual Organization of ASEAN Institutes and
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(ASEAN IVO)**

Appendix 2.2

Report of International Conference Presentation

Name: (Presenter)	Kanokvate Tungpimolrut
Affiliation:	National Electronics and Computer Technology Center
Project Title:	Cyber to Real World Integrated Testbed for Dam Safety Management and Water Governance System
Name of International Conference: (Link to website)	International Conference on Recent Innovations in Engineering and Technology(ICRIET-2026)
Title of Research Paper:	Enhancing Flood Routing Simulation of Dam Safety Remote Monitoring System by Machine Learning Technique
Name of all Co-authors (if any)	Kanokvate Tungpimolrut, Rangsarit Vanijjirattikhan, Jittiwut Suwatthikul, Manut Tanticharoen, Chirapot Vuthipraphan, Arnan Jomtarax, Seubsuang Kachapornkul, Shinichi Miyakawa, Shinsuke Miwa, Toshiyuki Miyachi, Jessadda Karnjana
Comments or feedback received at the conference and your answers: Q: Why did you select the FCNN model for inflow forecasting? A: Inflow is a type of time-series data that can be forecasted using machine learning approaches. Various models, such as Recurrent Neural Networks (RNNs) and Long Short-Term Memory (LSTM) networks, have been proposed for time-series forecasting tasks. However, these models can be overly complex and time-consuming to train. In this paper, we present preliminary results demonstrating the proposed concept of integrating machine-learning-based inflow forecasting with flood routing simulation. Q: Could this approach be applied to hydropower dams in Thailand or other countries? A: In this paper, we use local environmental parameters at dam sites; therefore, in principle, the proposed approach can be applied to other dams in Thailand as well as in other countries.	
Contribution to the project: Flood routing simulation and inflow forecasting are key targets of the project. They are the main issues related to dam safety management and the water governance system.	
Photos	



[Required Documents]

- A) Presentation Materials (e.g., PPT slides)
- B) Final Program of the conference

Reporter: Kanokvate Tungpimolrut

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