



IEIF ASEAN Research Collaboration Project:

Get to know: Dr Kimsrornn KHON

Round 3 Early Career Researcher from Cambodia

- **Host Organisation:** Monash University
- **Project title:** PV hosting capacity in distribution systems using AI techniques for carbon reduction towards net zero transition in Cambodia by 2050
- **Project outline:** This project assesses baseline PV hosting capacity in Cambodian and/or Australian distribution networks using stochastic and time-series analysis with Python-based tools, identifying key technical constraints. It also prepares AI-ready datasets to enable future optimisation and strengthens Cambodia-Australia collaboration toward net-zero energy transitions.
- **Contact:** kimsrornn.khon@itc.edu.kh
- **LinkedIn:** <https://www.linkedin.com/in/kimsrornn-khon-643b93101/>

What motivated you to apply for the IEIF ASEAN Research Collaboration Project?

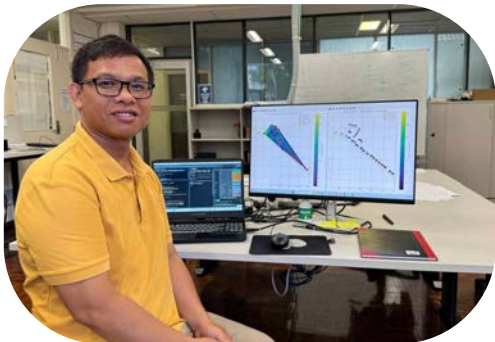
I was motivated to join the IEIF ASEAN Research Collaboration Project to advance my work in renewable energy integration and strengthen collaboration between ASEAN and Australia. My research focuses on improving how low-voltage distribution networks can safely host more solar PV, which is critical for achieving net-zero emissions.

How would you describe your experience of the Project, and what was the most valuable aspect or highlight for you?

The experience at Monash University has been highly valuable, particularly in developing a model-free AI approach to predict voltage and estimate PV hosting capacity. This enables faster and more scalable analysis compared to traditional methods, supporting smarter grid planning.

How was the Project supported you to participate in commercially focused research?

A key highlight was working on solutions that bridge research and real-world application, especially in using AI to improve electrical network performance under high renewable penetration. This has strong commercial relevance for electrical utilities and energy planners.



How will you use this experience to expand ASEAN-Australia collaboration in your future work or research?

Moving forward, I aim to expand ASEAN–Australia collaboration through joint research, student engagement, and applied projects, contributing to sustainable energy systems and accelerating the clean energy transition in the region.