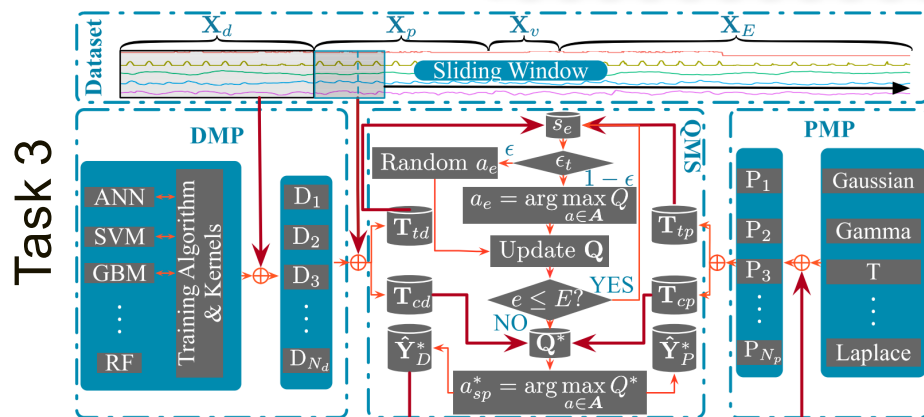
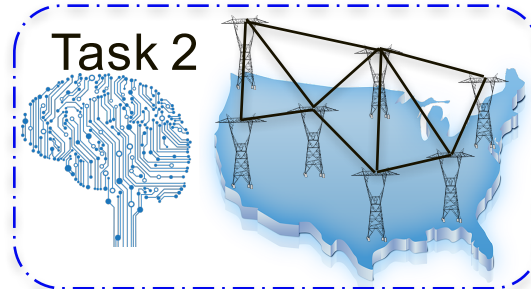


Reinforced Hierarchical Probabilistic Load Modelling Solution based on Dynamic Multi-model Machine Learning

ALTITUDE GRID

Project Summary

- This project aims to design and develop an advanced load modeling application that utilizes machine learning-based physical- and data-driven methodology to perform accurate **load forecasting** and electrification estimation.
- The output can provide decision guidance for **transmission and distribution** planners. Our approach to addressing these issues is a universal novel solution to utilities facing similar problems.



Key Personnel/Organizations



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Key Milestones & Deliverables

Task I	Develop algorithms and tools for load forecast
Task II	Develop models and tools for electrification factor estimation
Task III	Deliver the tool for field test
Task IV	Execute full-scale study

Project Impact

- Long-term load modeling using reinforcement learning can improve the accuracy of predictions and lead to better decision making in the management of power systems. It can also help to optimize the operation of power plants and reduce the costs associated with power generation and distribution.

Reinforced Hierarchical Probabilistic Load Modelling: A platform to provide accurate load forecasting based on dynamic models from different AI algorithms for future power systems modeling, design, and optimization

