Net Load Forecasting using Historical Data

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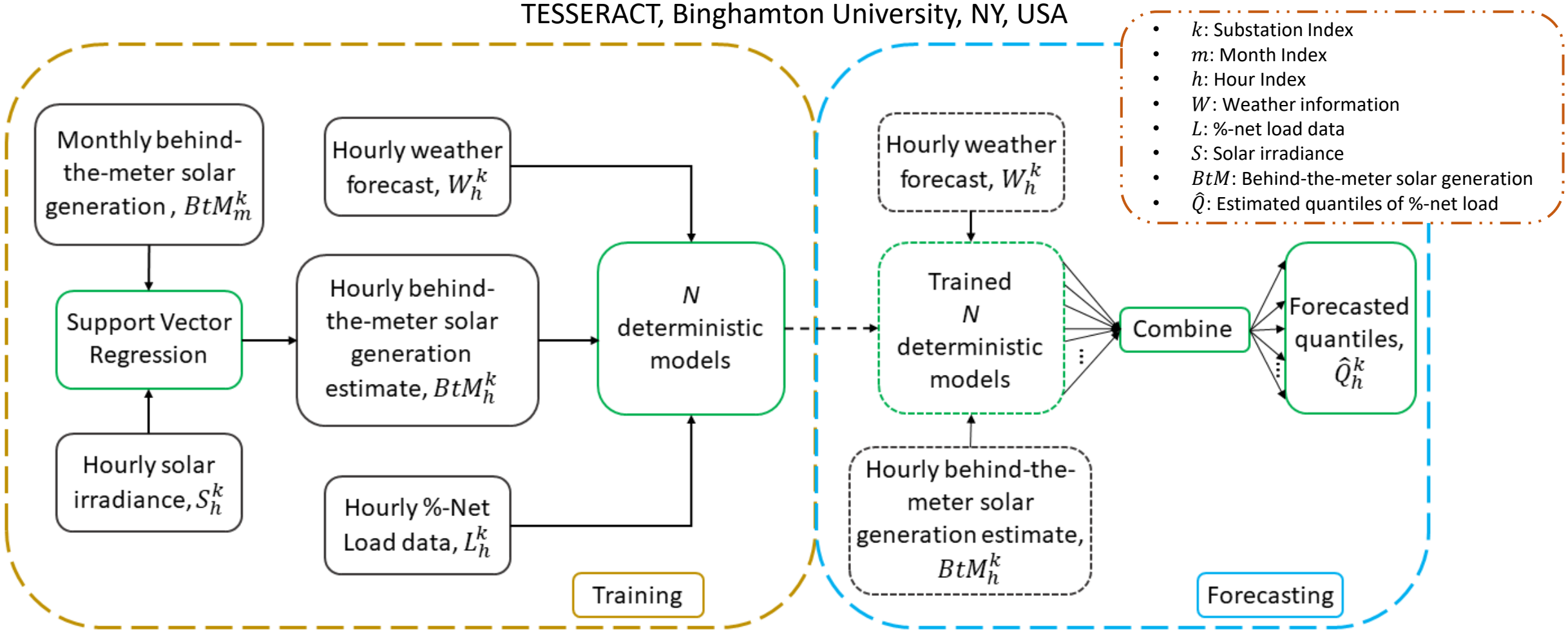

- As a first step, using the monthly capacity of behind-the-meter solar generation and the historical hourly solar irradiance information, the hourly behind-the-meter solar generation will be estimated using a support vector regression model.
- Using the behind-the-meter solar generation estimate, weather forecast data, and historical net load data, several deterministic models (e.g., $N = 50$) will be trained and cross-validated.
- An appropriate combination method e.g., (Bayesian model averaging, linear pool ensemble etc.) will be adopted to form quantiles of hourly %-net load using weather forecast and behind-the-meter solar generation estimate for the forecast day.