	Application 1	**Application 2**	**Application 3**
Case Title	Forecasting Brazilian and American COVID-19 cases based on artificial intelligence coupled with climatic exogenous variables	A novel decomposition-ensemble learning framework for multi-step ahead wind energy forecasting	Multi-step short-term wind speed forecasting based on multi-stage decomposition coupled with stacking-ensemble learning approach
Time Series	COVID-19 cumulative cases (Epidemiological dataset)	Wind energy generation (Renewable energy dataset)	Wind speed (Renewable energy dataset)
Objective	Proposing a forecasting framework based on signal decomposition methods	Combining signal decomposition methods with stacking-ensemble learning	Proposing a multi-stage signal decomposition strategy combined with stacking-ensemble learning