



2020

0 | 2008

2010

2012

— ETS — Hybrid — Observed — SARIMA — STL

H: RMSE of Models

2008

2010

2012

2014

2016

2018

Method	Train	Test	Train and Test
Grey Model	8360.38	31133.47	14825.50
Neural Network	673.41	16752.65	7169.28
STL	4551.64	19275.11	8898.66
ETS	4885.63	18807.29	8879.38
SARIMA	4861.50	26811.56	11811.23
Hybrid*	3648.76	21945.50	9922.57

I: R-squared of Models

Method	Train	Test	Train and Test
Grey Model	0.41	0.00	0.01
Neural Network	1.00	0.01	0.70
STL	0.83	0.57	0.52
ETS	0.80	0.50	0.52
SARIMA	0.82	0.41	0.31
Hybrid*	0.87	0.49	0.43

*Hybrid: Combined SARIMA, ETS, STL

J : MAE of Models

2014

2016

2018

2020

Method	Train	Test	Train and Test
Grey Model	6810.90	30174.70	10704.87
Neural Network	508.52	15003.31	3143.93
STL	2914.69	18612.59	5531.00
ETS	3228.79	18009.77	5692.29
SARIMA	3253.86	25995.81	7044.18
Hybrid*	2361.65	21244.56	5794.91

^{*}Hybrid: Combined SARIMA, ETS, STL and Neural Network model

*Hybrid: Combined SARIMA, ETS, STL and Neural Network model

and Neural Network model