**Supplementary table 5:**

**Diebold-Mariano (DM) Test Results Comparing Forecast Accuracy Between Models**

|  |  |  |  |
| --- | --- | --- | --- |
| **Forecast Type** | **Model Comparison** | **DM Statistic** | **p-value** |
| Active Cases | ARIMA vs. LSTM | 1.5015 | 0.1839 |
| ARIMA vs. Hybrid | 1.3849 | 0.2154 |
| LSTM vs. Hybrid | 0.9631 | 0.3727 |
| Death Cases | ARIMA vs. LSTM | -0.8501 | 0.4279 |
| ARIMA vs. Hybrid | 3.1088 | **0.0209** |
| LSTM vs. Hybrid | -1.6500 | 0.2 |
| Recovery Cases | Hybrid vs. LSTM | -0.9631 | 0.3727 |
| Hybrid vs. ARIMA | -1.3849 | 0.2154 |
| LSTM vs. ARIMA | -1.5015 | 0.1839 |