**Performance Evaluation Methods**

The performance metrics that were used to assess the predictive accuracy of the proposed system included the RMSE, the MAE, the MAPE, the MSE, the correlation coefﬁcient (R), the nonlinear regression multiple correlation coefﬁcient (R2),and the synthesis index (SI). These indexes are used to measure whether the predicted values are close to the actual values. Table summarizes the formulas for these indexes, where y is the actual value, y is the predicted value, ¯ yi is the average across data samples, n is the number of data samples, m is the number of performance measures, and Pi is the ith performance measure. The SI ranges from 0 to 1 and an SI value of close to 0 indicates a highly accurate predictive model.

