INTELLIGENT WEATHER FORECASTING SYSTEM GUIDED BY CASE BASED REASONING

A. SENANAYAKE AND S. KALUPAHANA

Department of Statistics & Computer Science, Faculty of Science, University of Peradeniya, Sri Lanka

This article describes how the Artificial Neural Network(ANN) based weather forecasting can be guided by the Case Based Reasoning (CBR). Intelligent system model designed based on the ANN reported by us previously has to be reconstructed by introducing new cases to the model taking into consideration, the fact that, weather patterns in Sri Lanka vary considerably. ANN addresses this domain by providing suitable examples according to prior experience. This allows the inclusion of more examples for which the system can be adapted properly. The adaptation is done by making cooperate memory and by transferring expertise to intelligent models. At present, the research work is in the testing stage, but applying CBR to the existing model will be a completely novel approach. In addition, this makes the possibility to design an intelligent autonomous system for weather forecasting. We believe that the proposed model could be further improved after more testing using data more longer period of time. The proposed model is represented in the following diagram.

