

ABSTRACT

ANOMALY DETECTION BY SELF-LEARNING OF SENSOR SIGNALS

Accurate detection of anomaly in sensor signals is critical and can have an immense impact in the health care domain. Accordingly, identifying outliers or anomalies with reduced error and reduced resource usage is a challenge addressed by the present disclosure. Self-learning of normal signature of an input sensor signal is used to derive primary features based on valley and peak points of the sensor signals. A pattern is recognized by using discrete nature and strictly rising and falling edges of the input sensor signal. One or more defining features are identified from the derived features based on statistical properties and time and frequency domain properties of the input sensor signal. Based on the values of the defining features, clusters of varying density are identified for the input sensor signal and based on the density of the clusters, anomalous and non-anomalous portions of the input sensor signals are classified.

(To be published with FIG.2)