

ABSTRACT

METHOD AND SYSTEM FOR IDENTIFYING AND FORECASTING THE DEVELOPMENT OF FAULTS IN EQUIPMENT

The invention relates to the remote monitoring of equipment. In a method for identifying incipient
5 faults in technical equipment, data is obtained about the equipment being monitored; a reference
sample of performance indices of the equipment is generated; state matrices and empirical state
forecasting models are constructed. Disruptions and integral criteria characterizing deviations in
the parameter indices of the equipment being monitored are also determined; information from the
equipment being monitored is analyzed; the reference sample is modified; the empirical models
10 are updated. The degree to which the parameter indices of the equipment being monitored deviate
from the indices of the empirical models is also determined, and disruptions pertaining to such
indices are identified. The calculated disruptions are then ranked; an anomaly for a performance
index of the equipment is determined; the type of fault is determined for each anomaly; an
equipment fault classifier is generated and an incipient fault is determined and the development
15 thereof is forecast. Automated fault determination is hereby provided.

(No Suitable Figure)