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- (71) **Applicant:** **INTERNATIONAL BUSINESS MACHINES CORPORATION** [US/US]; New Orchard Road, Armonk, New York, 10504 (US).
- (71) **Applicants (for MG only):** **IBM UNITED KINGDOM LIMITED** [GB/GB]; PO Box 41, North Harbour, Portsmouth Hampshire PO6 3AU (GB). **IBM (CHINA) INVESTMENT COMPANY LIMITED** [CN/CN]; 25/F, Pangu Plaza, No. 27, Central North 4th Ring Road, Chaoyang District, Beijing 100101 (CN).
- (72) **Inventors:** **KORDJAZI, Neda**; IBM Canada, Intellectual Property Law, 3600 Steeles Avenue East, Markham, Ontario L3R 9Z7 (CA). **SALIU, Moshood Omolade**; IBM Canada, 227 - 11th Avenue South West, Calgary, Alberta T2R 1R9 (CA).
- (74) **Agent:** **PYECROFT, Justine**; IBM United Kingdom Limited, Intellectual Property Law, Hursley Park, Hursley, Winchester Hampshire SO21 2JN (GB).
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(54) **Title:** PREDICTION OF PERFORMANCE DEGRADATION WITH NON-LINEAR CHARACTERISTICS

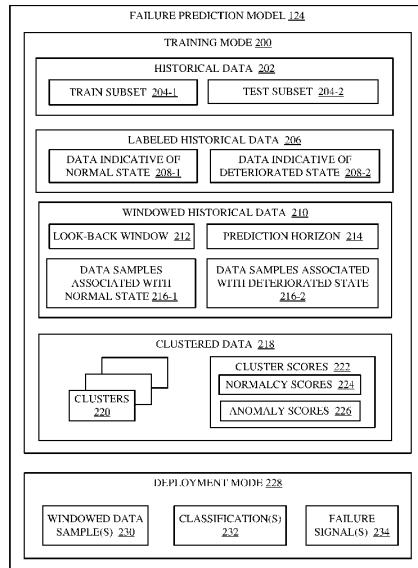


FIG. 2

(57) **Abstract:** Described are techniques for predicting gradual performance degradation with non-linear characteristics. The techniques including a method comprising inputting a new data sample to a failure prediction model, wherein the failure prediction model is trained using a labeled historical dataset, wherein respective data points are associated with a look-back window and a prediction horizon to create respective training samples, wherein the respective training samples are clustered in a plurality of clusters, and wherein the plurality of clusters are each associated with a normalcy score and an anomaly score. The method further comprises outputting a classification associated with the new data sample based on comparing a first anomaly score of a first cluster of the plurality of clusters that includes the new data sample to an average anomaly score of clusters of the plurality of clusters having the normalcy score greater than the anomaly score.

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