

Title (en)

METHOD OF DETECTING A PREDETERMINED CONDITION IN A GAS TURBINE AND FAILURE DETECTION SYSTEM FOR A GAS TURBINE

Title (de)

VERFAHREN ZUR DETEKTION EINER FESTGELEGTEN STÖRUNG IN EINER GASTURBINE UND FEHLERDETEKTIONSSYSTEM FÜR EINE GASTURBINE

Title (fr)

PROCÉDÉ DE DÉTECTION D'UN ÉTAT PRÉDÉTERMINÉ DANS UNE TURBINE À GAZ ET SYSTÈME DE DÉTECTION DE DÉFAILLANCE POUR UNE TURBINE À GAZ

Publication

**EP 2574198 A1 20130403 (EN)**

Application

**EP 11790972 A 20111202**

Priority

- EP 10196518 A 20101222
- EP 2011071592 W 20111202
- EP 11790972 A 20111202

Abstract (en)

[origin: EP2469041A1] The present invention relates to a method of detecting a predetermined condition in a gas turbine (10) and to a failure detection system for a gas turbine (10). The invention analyses instantaneous temperature readings from different locations (42, 32) in or outside/downstream a combustion system (22) of the gas turbine (10) by calculating the variance (130) for each measurement location (42, 32) during a predetermined time period. The variance of one measurement location is selected and then compared with a threshold that is based on at least two of the other variances of the other measurement locations (140, 150). If the said one selected variance goes above the threshold the occurrence of the predetermined condition is detected (170, 180).

IPC 8 full level

**F01D 21/00** (2006.01); **F01D 17/08** (2006.01); **F01D 21/12** (2006.01); **F01D 21/14** (2006.01); **F02C 9/00** (2006.01); **F02C 9/28** (2006.01)

CPC (source: EP)

**F01D 17/085** (2013.01); **F01D 21/00** (2013.01); **F01D 21/003** (2013.01); **F01D 21/12** (2013.01); **F02C 9/00** (2013.01); **F02C 9/28** (2013.01);  
**F05D 2260/80** (2013.01); **F05D 2270/303** (2013.01)

Citation (search report)

See references of WO 2012084453A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**EP 2469041 A1 20120627**; CN 103154440 A 20130612; EP 2574198 A1 20130403; WO 2012084453 A1 20120628

DOCDB simple family (application)

**EP 10196518 A 20101222**; CN 201180050658 A 20111202; EP 11790972 A 20111202; EP 2011071592 W 20111202