

Title (en)

GAS TURBINE ENGINE CONTROL METHOD AND SYSTEM

Title (de)

GASTURBINENMOTORSTEUERUNGSVERFAHREN UND -SYSTEM

Title (fr)

PROCÉDÉ ET SYSTÈME DE COMMANDE DE MOTEUR À TURBINE À GAZ

Publication

EP 3477120 A1 20190501 (EN)

Application

EP 17198621 A 20171026

Priority

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Abstract (en)

A method (100) and system for controlling rotor blade resonant frequencies in a compressor (14) for a gas turbine engine (10). A flow injection (2) is introduced into an axial air flow path (56) of the compressor (14) via a flow-injection opening (4) located at a pressure side (114) of at least one guide vane (7) of a plurality of guide vanes (7) forming a guide vane stage (46) in the compressor (14). The flow injection (2) is directed towards a neighbouring guide vane (7) located adjacent the guide vane (7) having the flow-injection opening (4). The flow injection is introduced at a predetermined operating condition to thereby enhance vane flow mixing and thereby reduce flow induced vibrations of a rotor blade (200) downstream of the vanes (7).

IPC 8 full level

F04D 29/68 (2006.01); **F04D 27/02** (2006.01); **F04D 29/54** (2006.01); **F04D 29/66** (2006.01)

CPC (source: EP)

F04D 27/0238 (2013.01); **F04D 29/542** (2013.01); **F04D 29/668** (2013.01); **F04D 29/684** (2013.01); **F05D 2240/123** (2013.01); **F05D 2270/114** (2013.01); **F05D 2270/304** (2013.01)

Citation (search report)

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Cited by

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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

Designated extension state (EPC)

BA ME

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