Title (en)

METHOD FOR DETECTING DEFECTS IN A COMPONENT, METHOD FOR TRAINING A MACHINE LEARNING SYSTEM, COMPUTER PROGRAM PRODUCT, COMPUTER-READABLE MEDIUM, AND SYSTEM FOR DETECTING DEFECTS IN A COMPONENT

Title (de)

VERFAHREN ZUM ERKENNEN VON FEHLSTELLEN IN EINEM BAUTEIL, VERFAHREN ZUM TRAINIEREN EINES MASCHINELLEN LERNSYSTEMS, COMPUTERPROGRAMMPRODUKT, COMPUTERLESBARES MEDIUM UND SYSTEM ZUM ERKENNEN VON FEHLSTELLEN IN EINEM BAUTEIL

Title (fr)

PROCÉDÉ DE DÉTECTION DE DÉFAUTS DANS UN COMPOSANT, PROCÉDÉ DE FORMATION D'UN SYSTÈME D'APPRENTISSAGE AUTOMATIQUE, PRODUIT PROGRAMME D'ORDINATEUR, SUPPORT LISIBLE PAR ORDINATEUR ET SYSTÈME DE DÉTECTION DE DÉFAUTS DANS UN COMPOSANT

Publication

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Application

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Abstract (en)

[origin: WO2020259732A1] The invention relates to a method for detecting defects, in particular cracks and/or pores, in a component (20), in particular in a component (20) of a turbomachine, preferably in a component (20) of a drive unit, the method comprising the following steps: applying penetration means onto at least one sub-region of the component (20), such that the penetration means penetrates into any defects, in particular cracks and/or pores, present in the component (20); cleaning the surface of the component (20) of penetration means that has not penetrated into defects, in particular cracks and/or pores, of the component (20); capturing an image, in particular an entire image, of the component (20); inputting the captured image into a machine learning system (40) trained to detect defects, in particular cracks and/or pores; and detecting defects, in particular cracks and/or pores, in the component (20) by means of the machine learning system (40) on the basis of light emitted and/or reflected by the penetration means in the defects, in particular cracks and/or pores.

IPC 8 full level

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CPC (source: EP US)

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