

Title (en)

METHOD AND DEVICE FOR IMPROVING PERCEPTIBILITY DIFFERENT STRUCTURES ON RADIOGRAPHS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR VERBESSERUNG DER ERKENNBARKEIT VON UNTERSCHIEDLICHEN STRUKTUREN AUF DURCHSTRAHLUNGSBILDERN

Title (fr)

PROCEDE ET DISPOSITIF POUR AMELIORER LA PERCEPTIBILITE DE DIFFERENTES STRUCTURES SUR DES RADIOGRAPHIES

Publication

EP 1771819 A1 20070411 (DE)

Application

EP 04741280 A 20040727

Priority

EP 2004008370 W 20040727

Abstract (en)

[origin: WO2006010372A1] The invention relates to a method for improving the perceptibility of different structures (18) on radiographs (10) by means of an image processing device (20) consisting a) in storing a radiograph (10) in electronic form as a local space-intensity distribution, b) in carrying out a Fourier transformation for determining a frequency-intensity distribution, c) in filtering said frequency-intensity distribution by modifying weighting between the high-frequency and low-frequency image signal components, wherein the fixing of the image signal components to be more intensively weighted is carried out taking into account the mean structure size of said structures whose perceptibility is to be improved, d) in carrying out an inverse Fourier transformation of the filtered frequency-intensity distribution in order to obtain a modified space-intensity distribution in which said structures are more easily perceptible. The image contrast for the hardly perceptible structures may be selectively improved by means of a changed weighting for the high-frequency, relative to the low-frequency, image signal components in the Fourier spectrum because the structures hardly perceptible on the radiographs, for example soft tissue parts having a size quantity and structuring different from easily perceptible structures as bones and implantants.

IPC 8 full level

G06T 5/10 (2006.01)

CPC (source: EP KR US)

G06T 5/00 (2013.01 - KR); **G06T 5/10** (2013.01 - EP KR US); **G06T 5/73** (2024.01 - EP US); **G06T 2207/20056** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2006010372 A1 20060202; CN 101052992 A 20071010; CN 101052992 B 20111228; EA 011562 B1 20090428; EA 200700347 A1 20070831; EP 1771819 A1 20070411; JP 2008507998 A 20080321; JP 4755184 B2 20110824; KR 101036370 B1 20110523; KR 20070049177 A 20070510; US 2009169086 A1 20090702; US 8244019 B2 20120814

DOCDB simple family (application)

EP 2004008370 W 20040727; CN 200480044078 A 20040727; EA 200700347 A 20040727; EP 04741280 A 20040727; JP 2007522915 A 20040727; KR 20077004486 A 20040727; US 65863004 A 20040727