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(54) **TEXTURE IDENTIFICATION**

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G01S 7/41	(2006.01)
G06F 1/16	(2006.01)
G06T 15/04	(2011.01)

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See application file for complete search history.

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(57) **ABSTRACT**

Technologies are generally described for determining a texture of an object. In some examples, a method for determining a texture of an object includes receiving a two-dimensional image representative of a surface of the object, estimating a three-dimensional (3D) projection of the image, transforming the 3D projection into a frequency domain, projecting the 3D projection in the frequency domain onto a spherical co-ordinate system, and determining the texture of the surface by analyzing spectral signatures extracted from the 3D projection on the spherical co-ordinate system.

27 Claims, 9 Drawing Sheets

1000

1001
Textile Texture

3D Wavelet Transform

1002
Power spectrum

Projection

1003
Scalogram

Fourier Expansion

1004
Affine Invariant Features