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- (54) **Title:** METHOD AND SYSTEM FOR REAL-TIME MONITORING OF WALL THINNING AND ASCERTAINING OF WALL ATTRIBUTES USING FIBER BRAGG GRATING (FBG) SENSORS

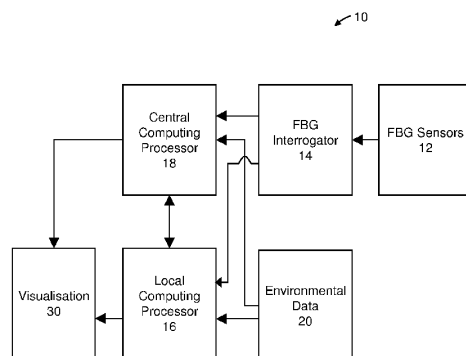


Figure 1

- (57) **Abstract:** The present disclosure relates to at least one method for ascertaining at least one attribute of pressure vessel wall. A method comprises: while a pressure vessel, which comprises a wall having an outer surface and an inner surface, is operating: ascertaining a current wavelength shift of a first fiber Bragg grating (FBG) sensor disposed at a first outer surface location on the pressure vessel; and ascertaining a current thickness of the wall at the first outer surface location by: computing a vector based on a time series of the current wavelength shift, or a derivative of the time series, or a derivative of the current wavelength shift; providing the vector to a predetermined regression model; and using the regression model, ascertaining the current thickness of the wall.

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