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(57) Abstract :

The present invention discloses a wearable skin-mountable multifunctional sensor system comprising an optical fiber based interferometer and a polymer film for embedding said interferometer and forming a wearable, skin-mountable, flexible and reconfigurable sensing unit. The sensing unit is responsive to physical parameters including bending, physical force, stretching and temperature which results a change in embedded configuration of the optical fiber according to said parameters leading to a variation of interference spectrum of the interferometer proportional to the parameters.

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