Detection of human microvibration transmitted along solid using pico-Tesla magneto-impedance sensor

Mohri K., Uchiyama T.

1213 Shimada-kuroishi, Tenpaku-ku, Nagoya 468-0028, Japan; Department of Electrical and Electronics Engineering, Graduate School of Engineering, Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464-8603, Japan

Abstract: Human microvibration waveforms are sensitively detected using a newly developed pico-Tesla magneto-impedance sensor (pT-MI sensor) when the human skin is touched directly or indirectly via transmission solid by the sensor head. The origin of the microvibration is discussed, considering the cellular Ca2+ flow oscillation for the smooth muscle autonomous vibration.

Author Keywords: Amorphous wire; Ca2+ flow oscillation; Geomagnetic field; Human microvibration; Pico-Tesla MI sensor

Year: 2010
Source title: IEEJ Transactions on Electrical and Electronic Engineering
Volume: 5
Issue: 3
Page : 378-379
Link: Scorpus Link
Document Type: Letter
Source: Scopus

Authors with affiliations:

1. Mohri, K., 1213 Shimada-kuroishi, Tenpaku-ku, Nagoya 468-0028, Japan
2. Uchiyama, T., Department of Electrical and Electronics Engineering, Graduate School of Engineering, Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464-8603, Japan