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Title: Fabrication of an electrocardiogram device with a stretchable skin patch for physiological measurement

Abstract: In this study, we propose an electrocardiogram sensing device with stretchable skin patch for physiological measurement. We have developed a novel interconnection for the device by applying rolling copper film onto polyimide film. We have also fabricated an enhanced polydimethylsiloxane and soft skin adhesive flexible patch for skin-contact applications. This electrocardiogram sensing device clearly shows the typical features of ECG waveform, indicating that it is suitable for continuous monitoring of biological signals. Through the development of Integrated electronic devices for the monitoring and prediction of mental disorders, we plan to explain the correlation between these three emotions, including normal, depression and panic disorder and mental health by various sensors.

Biography: Won Ick Jang received the B.S. and M.S. degrees in mechanical engineering from Kyungpook National University, Republic of Korea, in 1982 and 1984, respectively. He received the Ph.D degree in engineering from Tohoku University, Japan in 2005. Since October 1985, he is currently working for the ETRI in the area of developing microelectromechanical devices, Bio-MEMS, Bio-medical, IT-based convergence technology for u-Health service, and advanced process and equipment for semiconductor.