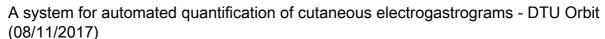
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A system for automated quantification of cutaneous electrogastrograms

Clinical evaluation of cutaneous electrogastrograms (EGG) is important for understanding the role of slow waves in functional motility disorders and may be a useful diagnostic aid. An automated software package has been developed which computes metrics of interest from EGG and from slow wave recordings from the gastric mucosa and serosa in a reliable and efficient manner. In particular, the frequency and amplitude of the gastric slow waves were computed, after which signal integrity checks were performed to assess if the signals are valid. For validation, manual estimates of the frequency and amplitude were compared to automated estimates. The methods were packaged into a software executable which processes the data and presents the results in an intuitive graphical and a spreadsheet formats. Automated EGG analysis allows for clinical translation of bio-electrical analysis for potential diagnostics, as commonly used in the cardiac field.

General information

State: Published

Organisations: Department of Management Engineering, Management Science, University of Auckland, University of Louisville, University of Mississippi

Authors: Paskaranandavadivel, N. (Ekstern), Bull, S. H. (Intern), Parsell, D. (Ekstern), Cheng, L. K. (Ekstern), Abell, T. L.

(Ekstern)

Pages: 6098-6101 Publication date: 2015

Host publication information

Title of host publication: Proceedings of the 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society

Publisher: IEEE

ISBN (Print): 978-1-4244-9270-1

Series: I E E E Engineering in Medicine and Biology Society. Conference Proceedings

ISSN: 1557-170X

Main Research Area: Technical/natural sciences

Conference: 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Milano, Italy,

25/08/2015 - 25/08/2015

DOIs:

10.1109/EMBC.2015.7319783

Source: FindIt

Source-ID: 276542390

Publication: Research - peer-review > Article in proceedings - Annual report year: 2015