

# Design of a User-Friendly LabVIEW–Based Toolbox for Electrotherapeutic System

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## Abstract

This paper introduces a prototype for electrotherapeutic system with a new design of user-friendly interface. The prototype is a closed-loop system that introduces factual knowledge of patient internal behavior during treatment session. In essence, the designed software is developed using LabVIEW-based environment. The main features of this software present in: enabling patient data management, recording and monitoring the heart and muscle activities during treatment session, reviewing patient progress through variety of charts, enabling data transmission based on transmission control protocol technique (TCP/IP) and essentially providing various stimulation patterns. The software described above was implemented in the proposed electrotherapeutic system and the results showed that it has good performance and demonstrated a superior assurance quality in optimizing clinical decisions based on patient's feedback.