

Implementation of Active Dynamic Thermography in medical diagnostics

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Implementation of the Active Dynamic Thermography (ADT) in medical diagnostics of some specific diseases is here discussed. After many years of research we proved that ADT is a proper tool to give an answer to the question of non invasive, objective and quantitative determination of burn's depth and the severity of a tested wound. The method may be also used to diagnose breast cancer and in some other applications. In skin burn diagnostics a method giving objective information what is the burn depth is a real challenge as until now there are not such methods approved in clinical practice. We implemented in clinics two prototypes based on ADT procedures, for skin burn diagnostics and for investigation of the breast cancer. The instrumentation and procedures applied in clinical tests are described. Still especially the choice of external excitation seems to be not a trivial task; even we proved a very high importance of cooling in such tests. Practical conditions for reliable use of ADT in burn diagnostics are discussed.

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