

**DEVICE FOR CONTROLLED HYPOTHERMIA ON FUZZY LOGIC ALGORITHMS**

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New methods of terrorist's activity appeared recently. Last decade it was observed rapid increasing of attempts of terror attacks against important elements of critical infrastructure: bridges, sky-scrapers, and other big strategic constructions, using mechanical oscillating devices. In case of destruction of such buildings are inevitable human trauma and research and development equipment to equip rescue teams.

We propose a sample of a device for therapeutics with hypothermia used in medical purposes for directed cooling of specific tissues using Peltier, elements. Peltier cooling elements allow elaboration of a small mobile device that can be operated in emergency medical service, in this way reducing the risk of ischemic tissue trauma after heart failure or blockage of arteries to embolism.

Studies have shown that patients under risk for ischemic brain injury present better results using hypothermic methods of treatment. This studies where focused on researching ischemic accidents that unlike usual strokes reduces coagulation threshold. These researches shown that hypothermia used in therapeutical purposes has a neuroprotective effect. Studies showed as well that use of therapeutic hypothermia in order to control intracranial pressure (ICP) after an ischemic stroke is a safe and feasible procedure.

To conduct this system Fuzzy logic algorithms are used. These algorithms are fundamentally different from conventional methods of automation by "human" approaching „human" techniques for control and management problems.

**References:**

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