Lifetch – Life Saving System

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Abstract. The paper presents the Lifetch System, the winning project of IEEE CSIDC'2004, designed by a team of students from Poznań University of Technology. The Lifetch System is based on distributed personal units, which combine a GPS receiver, a Radio Frequency (RF) transceiver and sensors that measure temperature, ambient light and acceleration. These units carried by people under protection of the Lifetch system communicate with each other over RF and exchange information gathered from the sources mentioned above. They periodically transmit data to the Command Center using GSM/GPRS/UMTS or, should it fail, the message passing system (ad-hoc network) working on a RF. The Command Center is the heart of the system and maintains its global status. It stores the information acquired from the units in the database and processes it through several subsystems.