



CELTIC AI Proposers Webinar

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Pitch of the Project Proposal

Thermal Assisted Monitoring System (THERMONITOR)

VESTEL

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Teaser



THERMONITOR project will interested in thermal camera assisted baby & elderly, bedsore, and sleep monitoring system.

Benefits:

- **Contactless fever measurement** of a body using a thermal/micro-bolometer sensor,
- *tracking body temperature as continuously and accurately,*
- *thermal and RGB camera recording, detecting the position and analyzing imaging data in real time,*
- *records humidity and the temperature data of the surroundings,*
- *App and Web platform via a communication protocol,*
- *warning(an alert or a notification) in unexpected situations,*
(AI, video/image/speech recognition and processing, data analyzing)
- *integration of the system to existing IoT systems.*



Organisation Profile



- *Global group of companies: 28 companies, of which 18 are located abroad,*
- *a consumer electronics company which includes major household appliances, digital and mobile products, small home appliances, IoT products and services, electric car charging infrastructure and automotive electronics and LED lighting products in the domestic and export market,*
- *Vestel is also one of the biggest OEM company in the world,*
- *more than 16,000 employees, over a 1.3 million m² manufacturing base in a single-site industrial area,*
- *around 1400 engineers, researchers and technical staff in R&D Department,*
- *over a hundred projects each year with an international team, funded EU and government.*



Proposal Introduction

Monitoring System

Data Acquisition

- *RGB*
- *IR camera*
- *Thermal/microbolometer sensor*
- *Thermal Sensor Module*
- *Microphone and speaker*
- *Humidity sensor*
- *Smoke sensor*

Data Processing

- *Thermal ISP*
- *RGB + IR image Algorithm*
- *The enhancement of RGB + IR Image using AI*
- *Analyzing data from RGB, Thermal sensor, Microphone and Humidity sensor*
- *Speech, face and emotion recognition for abnormal situations (panic, crowding, violence, worrying, etc.)*

Display

- *Web and App base management*
- *Back-end development*
- *Network interface with WiFi, Bluetooth, LoRa etc.*
- *Cloud system*
- *Battery system*
- *Warning (an alert or a notification)*



Proposal

Introduction



- *This monitoring system will provide to track a person fever continuously without any contact,*
- *also allows being monitored remotely of the person (baby, patient, elder, etc.) via mobile or web application,*
- *enables it for us to take some information like a baby crying, any violence to someone, room temperature, humidity, etc.*
- *This system is also usable for tracking places such as hospital, nursing home, and rehabilitation center. Especially this monitoring and warning system is very important for situations when someone is subjected to violence.*



Partners



Existing Countries: Korea and Turkey.

Turkish consortium is completed.

National NanoFab Center (Research Center) (Korea)

TRUWIN (SME) (Korea)

Empa Technology (SME) (Turkey)

Sestek (SME) (Turkey)

We are looking for some partners that expertise:

- AI, big data-related universities/research institutions, SME, large enterprise,***
- Video recognition and analysis companies,***
- Sensor providers...***



Contact Info



For more information and for interest to participate please contact:

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