

# TECHNOLOGY OFFER

## FLEXIBLE THERMOELECTRIC GENERATOR FOR THE POWER SUPPLY OF LOW POWER CONSUMPTION SENSORS (FLEXTEG)

The majority of the wireless sensors for IoT networks require a periodic and expensive maintenance, because of the use of batteries for their performance. It reduces the scalability of IoT systems. The proposed technology has an optimal geometry, which reduces the manufacturing cost, increases its life span and allows a perpetual power supply without batteries.

### DESCRIPTION OF THE TECHNOLOGY

The proposed technology offers a new concept of thermoelectric generator for the production of electric energy, which operates using a temperature difference between ambient air and a heated spot. This technology is resistant to high temperatures, easy to build, simple and affordable, scalable and, durable.

### APPLICATION AND OBJECTIVE MARKET

The technology is useful in the field of Internet of Things (IoT) as a perpetual power source for wireless sensors. Technological companies such as Huawei, GE Digital, Bosch IoT Sensor Company, IBM and Cisco, could be interested in this disruptive invention.

### COMPETITIVE ADVANTAGES

The proposed invention has a series of advantages:

- No need for batteries.
- Provides permanent power supply.
- Economic and feasible.
- Very scalable.
- Easy to integrate.



#### TIME-TO-MARKET

TRL-7  
Patented

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#### RESEARCH GROUP

Research Group in  
Fluid Engineering,  
Energy and  
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