

**ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
6^η ΥΓΕΙΟΝΟΜΙΚΗ ΠΕΡΙΦΕΡΕΙΑ
ΠΕΛΟΠΟΝΝΗΣΟΥ – ΙΟΝΙΩΝ ΝΗΣΩΝ
ΗΠΕΙΡΟΥ & ΔΥΤΙΚΗΣ ΕΛΛΑΔΑΣ
ΓΕΝΙΚΟ ΝΟΣΟΚΟΜΕΙΟ ΜΕΣΣΗΝΙΑΣ
ΝΟΣΗΛΕΥΤΙΚΗ ΜΟΝΑΔΑ ΚΑΛΑΜΑΤΑΣ
ΓΡΑΦΕΙΟ ΔΙΟΙΚΗΤΡΙΑΣ**

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**FROM: GENERAL HOSPITAL OF MESSINIA, HOSPITAL UNIT OF KALAMATA
TO: PRINCIPAL INVESTIGATOR OF THE PROPOSED RESEARCH PROJECT
PROFESSOR A. DOUNIS**

Subject: Collaboration Interest

Dear Sir Professor Dounis,

We send you this letter as a response to your intention of submitting a research proposal for financial support, from the Hellenic Foundation for Research and Innovation (HFRI), with title: **Applied Intelligence for Transactive Energy Hub Management System in Smart Hospitals**. This letter aims to express the interest of General Hospital of Messinia, Hospital unit Of Kalamata Management, for collaboration with the research team of Artificial-Computational Intelligence and Multidisciplinary Applications (ACIMA) laboratory, of the Department of Biomedical Engineering, Faculty of Engineering, of the University of West Attica, directed by Professor A. Dounis.

We strongly believe that the research proposal “Applied Intelligence for Transactive Energy Hub Management System in Smart Hospitals”, which you intend to submit, offers a great framework for collaboration and it provides the opportunity for us to make a first step towards the direction of research results utilization.

Energy efficiency in Hospitals, consisting of buildings with various systems and different needs, is one of the primary goals as far as district, national and international energy strategy are concerned. The duration of collaboration is estimated in two years, which is the time duration of the project. The proposed methodologies, associated with the research proposal, will benefit the Hospital towards the direction of upgrading the energy infrastructure and at the same time developing intelligent systems for energy management, leading to the pursuit of developing a Smart Hospital.

The research project aims towards the creation of an Energy Hub, within a Hospital, in order to minimize the energy needs for infrastructure operation, to optimize the energy efficiency and minimize the environmental print.

Based on our current conversations, I would propose to focus on:

- the quantity and power of the transformers in the Medium Voltage substation
- the nominal current the the main circuit breaker in the Low Voltage distribution panels is set
- the quantity and power of the emergency generators
- any interlocks that prevent two or more emergency generators working at the same time
- the nominal current that the circuit breaker of the emergency generators in the Low Voltage distribution panels is set
- the quantity and power of the UPS (this refers to central UPS that power significant uninterruptible loads, surgery rooms, not UPS that power individual computers)
- the nominal current that the circuit breaker of the UPS in the Low Voltage distribution panels is set
- the quantity and power of the heating boilers, and the fuel that they use (natural gas or oil)

- the quantity, efficiency (SEER) and power of the chillers
- the quantity and power of the steam boilers
- any similar information regarding other facilities and equipment that are not mentioned above ie cogeneration of heat and power (CHP).
- Furthermore, it would be of great use the single line diagram of the electrical infrastructure
- The energy efficiency certificate (IEEA)
- Energy consumption data regarding electricity, oil and natural gas for a length of years and data regarding the power use of the aforementioned equipment of every hour for one day
- In case there is telemetry data available through the electrical energy provider about power consumption at regular intervals i.e. every 15, those would be of great service.

We require from your hospital only the information mentioned above. This research will produce valuable conclusions which your hospital could include in your plans for a future renovation in order to achieve significant energy savings by operating an energy hub in your hospital.

The afore mentioned information are the only requirements on the part of the hospital. The General Hospital of Kalamata does not incur any financial costs.

Before closing this letter, I would like to send you my wishes for success on your research proposal, which may lead to a fruitful collaboration.

Kind regards,



ΕΛΕΝΗ ΑΛΕΙΘΕΡΗ
ΔΙΟΙΚΗΤΡΙΑ Γ.Ν. ΜΕΣΣΗΝΙΑΣ