

**ΕΡΕΥΝΗΤΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΑΚΟ
ΙΝΣΤΙΤΟΥΤΟ ΣΥΣΤΗΜΑΤΩΝ
ΕΠΙΚΟΙΝΩΝΙΩΝ ΚΑΙ
ΥΠΟΛΟΓΙΣΤΩΝ**
(ΝΠΙΔ : ΠΔ 271/89 •Ν2083/92 •ΠΔ 13/98)

**INSTITUTE OF COMMUNICATION
AND COMPUTER SYSTEMS
(ICCS)**
(P.L.L.E.: Decrees 271/89 &13/98•Law 2083/92)

ΣΧΟΛΗ ΗΛΕΚΤΡΟΛΟΓΩΝ ΜΗΧΑΝΙΚΩΝ ΚΑΙ
ΜΗΧΑΝΙΚΩΝ ΥΠΟΛΟΓΙΣΤΩΝ ΤΟΥ ΕΜΠ

SCHOOL OF ELECTRICAL
AND COMPUTER ENGINEERING OF NTUA

Ηρώων Πολυτεχνείου 9
15773 Ζωγράφου
Αθήνα

9, Iroon Polytechniou Str.
15773 Zografou
Athens , Greece

Tel. : +30-210-7722398, Fax : +30-210-7723557

To: To any interested party

28/07/2014

Subject: **Purchasing of a multisensor system including hyperspectral and thermal sensors**

The I-SENSE group of the Institute of Communication and Computer Systems (ICCS) is seeking to purchase a multisensor system for the acquisition of data in different spectral regions in the framework of the eVACUATE research project (313161).

In particular, the system should consist of one a hyperspectral and two thermal sensors. Regarding the hyperspectral sensor it should be sensitive at the approx. 400nm–700nm spectral region, be a lightweight one with low power consumption. In addition, the sensor should be placed in a compact protective housing and raw data should be acquired with relative high frame rate. Moreover, the hyperspectral sensor should be accompanied with all drivers and software in order to control all its functions, data acquisition and storage. Raw data should be acquired and stored through a standard interface. The lens should be of decent quality in the range of 10mm-35mm.

Regarding the thermal sensors, both should be sensitive in the thermal spectral region (approx. 8-13 μm) through a microbolometer or InGaAs acquisition system. The sensor should acquire data with a spatial resolution of at least 620x500pixels with a sensitivity less than 60mK. In addition, the sensor should be placed in a compact protective housing and raw data should be acquired with 9 Hz and/or 30Hz. Moreover, the sensor should be accompanied with all drivers and software in order to control all its functions, data acquisition and storage. Raw data (both video or frames) should be able to acquired and stored through a standard interface. The lens should be of decent quality in the range of 9mm -25mm with a HFOV from 25° to 35°.

To sum up the specifications of the required thermal sensor are detailed in the following table:

Description/ Requirements	
General Requirements	
All products should be quoted	
All products should be accompanied with the warranty from the manufacturer and/or distributor	
All products must be of decent quality and tested exhaustively	
All products must comply fully to the following specs	
Delivery time should be indicated clearly	
All delivery costs are included (transportation costs including insurance)	
One Hyperspectral Sensor	
Spectral Range	approx. 400nm – 700nm
Spectral Bands/Channels	At least 7 spectral bands
Spatial Resolution	At least 1.3MP (sensor)
Frame Rates	≥ 30 fps
Lens	10mm-35mm
Software (full control, acquisition, storage)	All Included (sdk, libraries, etc)
Interface (Cables included)	GiGE, USB3, Camera Link
Two Thermal Sensors	
Spectral Range	approx. 8-13 μ m
Sensitivity	< 60 mK
Spatial Resolution	At least 620 \times 500
Frame Rates	One sensor with ≥ 9 Hz and one sensor with ≥ 30 Hz (if export ITAR approved, otherwise 9Hz)
Lens	7mm-20mm, HFOV 25 $^{\circ}$ -35 $^{\circ}$, low f/number
Software (full control, acquisition, storage)	All Included (sdk, libraries, etc)
Interface (Cables included)	GiGE, USB3, Camera Link

Please send your offers and quotes by 20 August 2014 by email to Mr Konstantinos Loupos (kloupos@iccs.gr)

Dr Angelos Amditis
Scientific Responsible for the eVACUATE Project