

# A DECISION SUPPORT SYSTEM FOR MELANOMA DIAGNOSIS



## CONTACT DETAILS:

Research Results Transfer Office-  
OTRI  
University of Alicante  
Tel.: +34 96 590 99 59  
Email: [areaempresas@ua.es](mailto:areaempresas@ua.es)  
<http://innoua.ua.es>

### ABSTRACT

A Spanish Research Group has developed a system to help in the recognition of a melanoma through the visual characteristics of an image of the skin lesion. This system can be used as an automated way to decide the urgency to refer a patient to the dermatologist.

### TECHNOLOGY ADVANTAGES AND INNOVATIVE ASPECTS

#### MAIN ADVANTAGES OF THE TECHNOLOGY

- Costs reduction of melanoma campaigns. Clinical staff can capture the photographs of the lesion and then, the system decides the urgency to be analyzed by a specialist.
- Several diagnosis proposed by artificial entities are combined to obtain a more accurate diagnosis.

#### INNOVATIVE ASPECTS

- The system has been developed using web technologies so its integration to tele dermatology is direct.
- System is learning continuously so as much is used, better the results will be. The system efficiency increases with the use because it can learn by itself as an expert system and neuronal network.

### MARKET APPLICATIONS

- Clinical diagnosis on Dermatology

The software described is an expert system that can help to the doctor for melanoma diagnosis.

This system can be applied in the detection of other diseases which are diagnosed by image analysis.

### COLLABORATION SOUGHT

Type of partner sought: Private companies

Specific area of activity of the partner: Software for health and diagnosis or Software for processing images

Task to be performed: Acquire the technology for its commercial exploitation. The research group is also open to other kind of collaboration (For example: R&D new application of this technology for the diagnosis of other diseases, application of this technology in other fields, as quality control, control processing, etc.)

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