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Imaging the *Cheshire Cat* from *Alice in Wonderland* through an holographic diffuser.



## Grant information

The grant is aimed to support Research and Development tasks in the Photonic Research Group (GROC) at Universitat Jaume I in Castelló, Spain. GROC is a young and active research team in the field of photonics with 6 permanent staff members and, currently, 1 postdoc, 7 doctorate students, and several master and undergraduate students.

We offer a position in **BIOPHOTONICS** to carry out research within the project "**imaging through turbid media (VIMET)**". The project is aimed to increase the penetration depth of light-driven imaging modalities in highly scattering media. At the near infrared, scattering reversal is recognised as a major challenge for the application of photonics processes in biomedical fields. However, using techniques adapted from astronomy, physicists are finding ways to see through opaque materials such as living tissue. See for instance the article Z. Merali, "*Super Vision*", Nature **518**, 158-160, 12 February 2015.

Our approach to "see through scattering" is based on the use of a digital micromirror array which enables fast light structuring and detection with a very sensitive single-pixel sensor. Algorithms based on compressive sensing (CS) are used to retrieve a high-resolution image at shallow depth penetration.

**FULL INFORMATION ABOUT THE TASKS TO BE CARRIED OUT AT THE VIMET PROJECT CAN BE REACHED AT OUR WEBPAGE**

<http://bit.ly/GROCUJI>

## How to apply/documents required:

- Application form (document 1) and motivation letter (document 2). Contact [lancis@uji.es](mailto:lancis@uji.es) to get both forms.
- ID document (EU member states) or valid passport
- Copy of the certificate of degree (or the payment of the fees for its issuance)
- Copy of transcript including degree information, qualifications and dates (with Spanish translation if any)
- Updated curriculum vitae
- 2 reference letters
- If applicable, proof of Spanish and/or English communication skills

SEND ALL THE INFORMATION TO PROF. JESÚS LANCIS BY ELECTRONIC MAIL TO [lancis@uji.es](mailto:lancis@uji.es)

SUBJECT: APPLICATION TO GRISOLIA GRANT

## Eligible Candidates

- Students who have graduated from a non-spanish university and hold the MsC or BsC degree
- Applicants should not hold a PhD degree
- Certificate awarded after 1st January 2012
- Spanish and/or English communication skills
- Introductory skills in photonics, electrical engineering, computer science and/or biophysics
- Programming abilities in Matlab or Labview are welcome

## The Fellowship

- 3-year grant or until the date of the PhD award
- Gross salary per month: € 1.200, with his/her corresponding personal income tax withholding (plus an stipend of € 1600 for travel and setting during the first year)
- Accident and liability insurance as well as health insurance

## IMPORTANT DATES

- APPLICATION IS OPEN UNTIL 22ND MARCH 2015
- Expected incorporation date: JUNE 2015