Call for a PhD position in Humanoid Manipulation at Jaume I University (UJI), Spain

The UJI Robotic Intelligence Laboratory (RobInLab) (http://robinlab.uei.es) offers a PhD programme through the UJI School for Doctoral Studies. One fully funded 4-year sponsored PhD is available in Castellon starting November 2016/January 2017, on the topic of human-like robotic manipulation for real-world applications. Deadline is June 16, 2016.

Research project:

The candidate will join the vibrant team of the 4-year project RoboPicker, led by Prof. Angel P. del Pobil, and will be directly funded by Spain National Programme for Promoting Talent in Research, that only grants these studentships to the best selected projects.

The overall objective of the project is to attain a breakthrough in full human-like robotic manipulation in real-world situations. For the project we take inspiration from the Amazon Picking Challenge (http://amazonpickingchallenge.org/). Reasons for the difficulty of this challenge arise from the fact that manipulation is conducted in a real environment, with several objects inside a restricted space, with poor visibility, accessibility, maneuverability and manipulability. Also, the objects involved are ordinary items of disparate forms and sizes.

In this context, the successful candidate will have freedom to pursue his/her own research goals, according to his/her background and interests, among the different topics involved in the project, namely: gripper design, object recognition, pose recognition, grasp planning, compliant manipulation, motion planning, task planning, multimodal task execution, error detection and recovery, etc. Bio-inspired approaches pertaining to active perception and multimodal sensorimotor coordination will be encouraged.

The research work will be carried out on two humanoid platforms: UJI's Tombatossals Humanoid Torso and Re-think Robotics Baxter -to be mounted on a mobility base (http://robinlab.uei.es/our_robots).

Requirements:

This studentship is intended for brilliant young graduates with outstanding performance, and fulfilling the requirements for admission to a PhD programme, typically holding a Master degree in Computer Science, Robotics, Mechatronics, or a related discipline relevant to the project. An additional background and/or interest in computational neuroscience or interdisciplinary bio-inspired research will be a plus. Excellent programming skills are essential along with the ability
to develop software on robots (including ROS). The ideal candidate will be self-motivated with good writing and communication skills in English.

**Employment:**

We offer a very challenging full-time position for 4 years in an inspiring multidisciplinary and international environment. We also provide excellent facilities for professional and personal development, holiday allowances and a number of additional benefits. Your main responsibility will be to carry out research, but you will be offered the opportunity to acquire some teaching experience as well.

Successful applicants will be awarded an annual bursary of 20,500 € which amounts to a minimum annual gross salary of 16,422 €, after deducting social costs. Students are expected to complete their PhD dissertation within the first three years; if this is the case, the gross salary for the fourth year will be 19,000 €. Additional benefits include tuition fees for the PhD Programme and funding for a short research stay (2-4 months). Our policy is also to fund longer stays at recognized labs as part of the student's training. The anticipated start date is November 2016 but a delay of no more than two months can be granted if necessary.

**Application:**

**Eligibility.**- The candidate should hold the degree required for admission to the PhD programme at the date the contract will be signed, i.e. around early September 2016.

Applications should include:

a) Cover letter with personal data (nationality, date of birth, gender, current address)

b) Copy of valid passport (only if not a citizen or resident in Spain)

c) Official academic transcript including the name of obtained degree(s), showing courses taken and grades achieved together with dates, as well as the maximum and minimum scores and score required for passing a course. An official translation into English or Spanish is required if the original is in another language.

d) A detailed CV in English or Spanish.
Optionally, names of references or recommendation letters are very welcome.

The Ministry reserves a number of bursaries for persons with a disability (higher than 50%). If this is the case a written proof should be provided.

The candidate should submit the above documents to <robinlab@uji.es> as soon as possible but no later than **JUNE 16, 2016**

Please include the above documents as a SINGLE PDF file with your name and include - “PhD Application” in the subject-line. Please meet this deadline, even if you do not have all the documents, since missing files can be provided later.

Note that pre-selected candidates must eventually apply formally on-line once the Call is announced by the Ministry at (http://www idi mineco gob es/). Spanish candidates can directly follow the instructions provided there but all applicants are requested to submit their applications first to <robinlab@uji.es>. We will guide foreign candidates for the online application. A remote interview will be part of the selection procedure.

For more information, please address your inquiries to Prof. Angel P. del Pobil at <robinlab@uji.es>

**About UJI RobInLab:**

RobInLab has 25 years experience in RTD activities and a strong record of participation in funded European, national and regional projects, as well as with companies and private foundations. RobInLab has a strong research line in robotics that was initiated in 1991 and today involves a team of 7 full-time researchers, who are also involved in the Erasmus Mundus Master Programme in Advanced Robotics. Their activities emphasize research and development in the areas of cognitive and service robotics, including motion planning, active learning, multisensory grasping and manipulation, control architectures, neuro-robotics, visual and tactile perception, cooperative mobile robotics, and developmental robotics. The group has been very active in benchmarks and performance evaluation in robotics research. RobInLab has participated in various European funded projects such as GUARDIANS, EYESHOTS and GRASP. It has established itself as a renowned and highly competitive research organization within the Robotics community, being one of the founding members of the EURON Network of Excellence. Jaume I University is situated in Castellon, a town on the Mediterranean coast of Spain between Valencia and Barcelona, it seeks to maintain a principle of open competition (on the basis of merit) to appoint
the best candidate, and provides equal opportunity for all candidates, and equally encourage both genders to apply, as well as candidates with disabilities.

**Professional perspectives:**

Professional perspectives for our students are excellent. Former UJI RobInLab PhD alumni include winners and finalists of the European PhD George Giralt Award and Robotdalen Scientific Award, as well as recipients of Marie Curie Fellowships. They followed their careers as postdocs at prestigious universities such as the Imperial College London, University of Leeds, University of Hertfordshire, University of Plymouth, Hong Kong University of Technology, or companies such as Willow Garage. Books based on their thesis and subsequent work have been published by Springer in series such as STAR or COSMOS. Currently they pursue their professional careers at companies such as Google in California, INTEL in Portland, The Shadow Robot Company, or with academic positions at Radboud University in The Netherlands or Middlesex University (U.K.)