

University of Padova - Department of Information Engineering

Selection announcement for the awarding of 1 research fellowship titled:

Software development and ROS integration of Time-of-Flight sensors for obstacle avoidance in smart wheelchairs

Notice of selection n. 63/2021

Having regard to par. 4 of Art. 80 of the University's "Regolamento di Ateneo per l'amministrazione, la finanza e la contabilità" (Regulations Governing Administration, Finance, and Accounting) and "Regolamento delle borse per lo svolgimento di attività di ricerca", (Regulations Governing Research Fellowships) a selection announcement has been published for the awarding of 1 research fellowship[s] at the Department Information Engineering under the supervision of Prof. Luca Tonin , Research Project Supervisor. The research fellowship shall last for 1 month.

The research fellowship shall be for a total amount of € 1400 financed by RAS MENEGATTI and will be paid in deferred monthly instalments.

The Research Fellowship Holder must carry out the following research activity:

Development of software for Time-of-Flight sensors to be exploited in smart wheelchairs. In particular, the software will acquire and integrate information from two laser range finders and from a RGB-D camera. Furthermore, algorithms for safe wheelchair navigation and obstacle avoidance will be developed. Finally, the software will be integrated in the Robot Operating System (ROS) middleware.

ADMISSION REQUIREMENTS

- a three-year undergraduate degree (D.M. 509/1999 or D.M. 279/2004) in Computer Engineering, Biomedical engineering
- other qualifications: Bachelor degree in Computer Science or Bachelor degree in Biomedical Engineering

(The eligibility of qualifications awarded abroad will be verified by the Selection Committee.)

Required skills:

- Skills in robotics and semi-autonomous wheelchair navigation
- Proficient English

- Programming: C++, ROS, Matlab

Incompatibility

The fellowships within this announcement may not be combined with:

- other research grants ;
- fellowships of any other kind, with the exception of those awarded by national or foreign institutes to integrate, with periods abroad, the specific research activities required by this announcement.

In the case of self-employed, employed or parasubordinate employed, compatibility shall be determined by the Research Project Supervisor.

Research Fellowship Holder may not have family or kinship relationships up to the fourth degree with lecturers or researchers working at the Department elected as "Research Base", or with Rector, or Director General, or a member of the University Board of Governors.

Procedures for submission of application form

The deadline for submitting the application form is 3/8/2021 at 12.30

Alternatively, it can be submitted as follows:

1) delivered in person to the Administrative Secretariat of the Department of Information Engineering at the following address: Dipartimento di Ingegneria dell'Informazione, Via Gradenigo, 6/b, 35131 Padova

2) posted by registered mail with advice of receipt to the following address: Department of Information Engineering at the following address: Dipartimento di Ingegneria dell'Informazione, Via Gradenigo, 6/b, 35131 Padova.

Should the application be sent by registered letter, the postmark will not be accepted as evidence of meeting the application deadline. The date of receipt will be taken into account. Therefore, the application must reach the office before the deadline of this selection announcement.

3) sent by certified e-mail (PEC) to dipartimento.dei@pec.unipd.it [pec e-mail address of department].

The envelope or subject heading of the email must indicate the following: "Selection Announcement for the Awarding of Research Fellowship -" *insert the title of the research fellowship*" with the Department/

The application must include:

- a) A dated and signed Europass CV, available at the link indicated on the selection

announcement;

- b) a photocopy of a valid identity document (Identity Card or Passport);
- c) any other document, qualification or publication useful for the selection process.

Selection procedure

Candidates' applications shall be evaluated by a Selection Committee that will be nominated in accordance with the "Regulations Governing Research Fellowships," on the basis of their qualifications

Prior to assessing candidates, the Selection Committee shall establish the maximum score, criteria and the procedure to be used in evaluating qualifications

At the end of the selection process, the Selection Committee shall send the report to the Head of the Department/Centre for approval.

After verifying the legality of the deeds, the Head of Department/Center shall approve by decree the ranking order and the awarding of the research fellowship.

The administrative office of the Department/Center that issued the selection announcement shall notify the successful candidate.

The winner must accept the award within ten days of notification. Otherwise the winner shall forfeit the right to the research fellowship. In case of renunciation, the fellowship will be awarded to the next eligible candidate, according to the ranking order.

The ranking order will be published on the Department/Center's web page at the following address, _____, and on the University's website.

Return of Documents and Publications

Any documents and publications sent to the University can be returned at the applicant's expense after two months from the completion of the selection process, subject to any ongoing litigation.

Processing of personal data

In accordance with Legislative Decree no. 196 dated 30 June 2003 and s.m.i, it is hereby stated that any data provided, in print or electronic format, shall be handled only for the purposes of this announcement and the entering into and managing of the relationship with the University.

The person responsible for administrative proceedings

Final provisions

For anything not specified in this selection announcement, see the University of Padova's current regulations regarding the awarding for research fellowships.