Mechanical Engineering at the Universidad de Vigo (Centro Universitario de la Defensa)

Award Autogenerated Code
10534-SP

Region
Europe and Eurasia

Country
Spain

Award Type
Fulbright Scholar Award

Number of Recipients
1

Stipend

Direct grant benefits (stipend, travel and relocation allowances) are provided by the host institution, the Centro Universitario de la Defensa (CUD - Naval Academy), affiliated with the Universidad de Vigo.

€3,200 (approximately $3,850) per month. This amount covers the monthly stipend, housing and living allowances. Scholars accompanied by dependents for at least 80 percent of the grant period will receive a monthly dependent allowance of €150 (approximately $180) for one dependent or €300 (approximately $360) for two or more dependents.

Estimated Travel and Relocation Allowance

Travel and relocation allowance for scholars: $1,400 (approximately €1,165). Authorized dependents' travel allowance: $800 (approximately €665 per person for up to two dependents).

Dependent Tuition Allowance

The host institution (CUD) offers tuition in a private school affiliated to the Spanish Navy or, alternatively, assistance in finding a suitable school and some funding for tuition costs.

Candidate Profile
Academics, except early career

Activity Type
Teaching/Research

Application Deadline
Wednesday, September 15, 2021

Award Activity

A) Teaching Mechanical/Naval/Telecommunication Engineering courses at the undergraduate level:

The Fulbright professor, along with a local instructor, will co-teach one or two courses at the undergraduate level (which includes third, fourth, or fifth year Naval Academy students completing a bachelor’s degree in mechanical engineering) for an average weekly teaching load of eight hours, divided between theory and laboratory practices. The courses are expected to have 60-70 students.

The professor's expertise should either be in mechanical/Naval or telecommunications engineering disciplines. He/she is expected to teach part of one or two courses to be chosen from:

Mechanical/Naval engineering courses:

- Electronics (third year)
- Materials Engineering (third year)
- Advanced Strength of Materials (third year)
- Graphics Engineering (third year)
- Fundamentals of Automation and Control Systems (fourth year)
- Advanced Thermodynamics (fourth year)
- Structure Theory and Industrial Building (fourth year)
- Manufacturing Engineering (fourth year)
Telecommunications engineering courses:

- Computer networks (fifth year)
- Naval sensors (radar, sonar, etc.) (fifth year)

Complete degree contents can be found (in Spanish) on the Center’s website [1] or in the University of Vigo website [2], where some of the courses are also described in English.

B) Research:

The visiting professor will be invited to present his/her research in seminars and to attend research seminars by UVIGO’s and CUD’s professors. There are resources for research in fields of interest to the Spanish Navy and/or the Ministry of Defense. Some examples include:

- Radar, sonar, optoelectronic devices
- Artificial intelligence applied to Maritime Situation Awareness
- Software defined radio applications on radar and communications
- Unmanned vehicles in naval applications
- Ship maintenance using advanced acoustic techniques
- 3D scanning and photogrammetry for civil engineering and land surveying applications
- Modelling of fire propagation and extinction
- Radon in buildings: modelling, measuring and mitigation techniques
- Energy efficiency: simulation and experimental analysis of energy storage systems
- Application of non-destructive testing techniques for the evaluation of civil engineering structures and infrastructure
- Calibration and development of thermal energy models.
- Transient simulation of multizone building energy models, HVAC systems and cogeneration devices.
- Scalable and Intelligent Information Systems.
- Natural language processing applied on human interactions.

Research collaboration with CUD faculty in the above topic areas or any other common areas of interest is encouraged. Opportunities also exist to conduct research through co-advising of students in final degree projects.

The balance between the two activities in this Teaching/Research award is 70% - 30%.

Please note that, although the online information on the host institution website is in Spanish, most faculty in the Centro Universitario de la Defensa/Naval Academy speak English, and the scholar will only be expected to teach in English. Detailed information about their tasks will be provided to candidates in a timely manner and in English, after being selected.

Award Length
Four months

Award Dates
Mid-August to mid-December 2022. Dates cannot be postponed to the spring 2023 term.

Locations

Centro Universitario de la Defensa (CUD) [3], Spanish Naval Academy, Marín, Pontevedra (affiliated with the Universidad de Vigo)

Flex Option
No

Discipline Type
Only applications in the following disciplines will be considered

Disciplines
Engineering

Areas of Interest
Mechanical/Naval Engineering and Telecommunications Engineering.

Special Features
The CUD sponsors this award and, in addition to the financial benefits, offers logistical assistance in finding housing and, if
necessary, a school for dependent children. A contact will be available to help the professor with everything related to his/her adaptation. The professor will be granted access to all digital resources available at the Universidad de Vigo.

**Degree Requirements**
Ph.D. (or other terminal degree) required

**Additional Qualification Information**

For academic candidates: Associate or Full Professor. Assistant Professors with substantial teaching experience will also be considered.

For professionals: candidates with wide and demonstrated experience in the discipline, and contact with teaching, education and/or outreach programs.

**Please note that candidates with dual U.S./Spanish citizenship, or candidates who are residing in Spain at the time of application or anytime thereafter, are not eligible for the Fulbright program in Spain.**

**Additional Language Requirement**

Classes will be taught in English. Some proficiency in Spanish is recommended for daily life. Marin, where the Naval Academy is located, is a small town with a population of 25,000 people and English is not widely spoken. Although larger towns like Pontevedra (83,000 inhabitants) and Vigo (300,000 inhabitants) are nearby, the level of English is also low.

**Invitation Requirement**
A letter of invitation is optional.

**Additional Comments**

The CUD is located on the premises of the Spanish Naval Academy (Marín, Pontevedra). It belongs to the Ministry of Defense (MINISDEF). It is attached to the University of Vigo (UVIGO), within the framework of a signed agreement between both institutions, and its main core are the applicants and midshipmen of the Spanish Navy. It is a public center whose organization and operation take into account the principle of academic freedom.

The CUD began its journey in 2010, graduating in 2015 the first class of Navy officers with a bachelor’s degree in Mechanical Engineering. Since 2019, the CUD has included a master's degree program within its educational offer, aimed at MINISDEF staff (master's degree in management of ICT infrastructure for defense).

Regarding the bachelor’s degree in mechanical engineering, this program has recently obtained the EUR-ACE® accreditation, considered the most prestigious that an engineering degree can obtain in Europe. It is sponsored by the European Network for Accreditation of Engineering Education (ENAEE), which guarantees the quality of engineering programs in Europe.

The future Spanish Navy Officers must remain five years in the Academy. In the meanwhile, they are being prepared to perform in their first assignment on board Navy Ships and Marine Units when leaving the Academy. Part of this preparation, regarding the scientific-technical aspect, consists in taking all the undergraduate courses that conform the bachelor’s degree in Mechanical Engineering.

CUD's lecturers must have the academic and professional skills required for their teaching. They have also committed themselves to promote the military values and ethics.

The Spanish Ministry of Defense has stated as a priority the improvement of the English language skills of the future Officers. The Spanish Navy shares this same concern. During their stay at the Academy, the midshipmen must learn English as part of their regular academic education throughout their curriculum. They must also learn naval technical English during their military training at the academy, since the naval procedures use English as the main language. At present, as a parallel goal of the bachelor’s program, the CUD is trying to improve the students’ English language skills by teaching part of the courses (in last years) in English. To make this possible, Fulbright US lecturers are very welcome.

In addition to teaching activity (main goal of our Center), there is a research vocation as a University Center, carried out mainly by its lecturers and research staff. Research collaborations with CUD faculty in common areas of interest is encouraged, especially in fields of interest to the Spanish Navy and/or the Ministry of Defense.

One last consideration in order to apply to this award is the beautiful location in the north-western region of Spain: Galicia, with outstanding nature, history and gastronomy.

Galicia overlooks the Atlantic Ocean and the Cantabrian Sea. Its rich 2,000-year-old history is immediately perceived during a visit to this region which makes for a unique adventure packed with tradition, lush scenery and beautiful cities. Galicia neutralizes the borders between land and sea, and both elements merge over 1,300 kilometers of coast, which is home to 772 beaches and their traditional estuaries, or rias, which are navigable all year round. The Lower and Upper Rias melt into the landscape, creating an unparalleled site for practicing Water Tourism activities.
The Way of St. James was—and still is—the most traditional, most popular and most celebrated route in Europe. For over one thousand years, the Way of St. James has offered millions of people from around the world a unique religious, spiritual and cultural experience. Pilgrims have been travelling to Santiago de Compostela since the 9th century, after the discovery of the remains of the apostle St. James. Over the following eight centuries, the constant flow of pilgrims from all around Europe outlined different routes that converge in Spain as they head towards Santiago de Compostela, their final destination.

Galicia’s varied gastronomic delights all have one thing in common: the patient, loving way in which meals are prepared. Galician cuisine is traditional and the portions are generous.

Marin is located in one of the Lower Rias (Rias Baixas, in Galician). More touristic information can be seen here.

Helpful Links

Universidad de Vigo

Multi-Country/Area Award
No

Award Length Filter
Three to five months

Invitation Requirement Additional Information

A letter of invitation is not needed.

The CUD welcomes scholars to seek more detailed information.

Contact: Dr. Paula Gomez, CUD International Programs Coordinator

Email: international@cud.uvigo.es

Award Code
12004-SP

AddThis

Award Year
2022-2023 Awards

Language Proficiency Requirements
None, English is sufficient.

Career Profile
Mid-Career Academics
Professionals
Senior Academics

Scholars selected for this award will be required to:

- Conduct a research project of the applicant’s choosing
- Teach graduate and/or undergraduate courses of the applicant’s choosing

Source URL: https://awards.cies.org/content/mechanical-engineering-universidad-de-vigo-centro-universitario-de-la-defensa-2

Links
[2] https://secretaria.uvigo.gal/docnet-nuevo/guia_docent/?centre=252&amp;amp;ensenyament=P52G381V01&amp;amp;consulta=assignatures&amp;amp;any_academic=2020_21&amp;amp;idioma=cast&amp;amp;idioma=eng
[3] https://cud.uvigo.es/index.php?option=com_content&amp;amp;view=article&amp;amp;id=51&amp;amp;Itemid=107
[6] mailto:international@cud.uvigo.es
[7] https://awards.cies.org/award-years/2022-2023-awards