

# Do you want to be a pioneer of a new United States-United Kingdom *Advanced Studies Institute* in Robust Control of Quantum Networks?

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The US National Science Foundation (NSF) has entrusted E. Jonckheere (Principal Investigator on the US side) and [Prof. Sophie Schirmer](#) of [Swansea University](#) and [Dr. Frank Langbein](#) of [Cardiff University](#) (contacts on the British side) to develop a joint *United States-United Kingdom (US-UK) Advanced Research Institute (ASI) in Robust Control of Quantum Networks*. In order to give the program broader impact, Profs. Tony Levi and Paul Bogdan, both with USC, are advisers to the program. This venture is part of the NSF *International Research Experience for Students (IRES)* program. NSF will pay for traveling & lodging expenses of a selected body of students, recent graduates, and postdocs to attend 2 weeks of intensive training in robust control of quantum networks and interact with British students/postdocs of a similar standing. The training is scheduled June 23-July 07. Lectures will be offered at both Swansea University and Cardiff University (see attached program).

Both cities are in Wales (a beautiful area in South-West of Great Britain) and this program will capitalize on Wales' unique position in compound semiconductor technology with, **in Cardiff**, the Engineering and Physical Sciences Research Council (EPSRC) Manufacturing Hub, led by Cardiff University, and the Compound Semiconductor Catapult (industry incubator), and , **in Swansea**, the [Swansea Doctoral Training Center](#), the [Swansea Computational Foundry](#) and the [Swansea Nanotechnology Health Center](#).

Candidate students should be US citizens or permanent residents and student candidates are expected to have regular undergraduate or graduate student status, acceptable GPA (>3.5/4.0), and have taken courses in robust control and/or quantum information technology, and/or quantum devices, or have relevant experience. (We are currently negotiating to have USC-students get 03 EE599 USC unit credit.) Recent graduates and postdocs are expected to have experience in control and/or quantum technology. If you are interested, please, see Dr. Jonckheere (EEB306, (213) 740-4457, [jonckhee@usc.edu](mailto:jonckhee@usc.edu)) for details and to get an application form. The application form, the program/course syllabus, and other relevant information are downloadable from <http://ee.usc.edu/~jonckhee>. This web site will also keep candidates abreast of the latest developments in this program.

## Application to IRES program—students

Name: \_\_\_\_\_

Your institution: \_\_\_\_\_

Email address: \_\_\_\_\_

Student status (undergrad/grad, major): \_\_\_\_\_

Citizenship status (circle relevant one): \_\_\_ US citizen \_\_\_ US permanent resident \_\_\_\_\_

(This program is restricted to US citizens and permanent residents.)

Grade Point Average (GPA): \_\_\_ UNDERGRAD: \_\_\_\_\_ GRAD: \_\_\_\_\_

Number of units taken at your institution: \_\_\_\_\_

Passed screening exam \_\_\_ YES/NO \_\_\_\_\_ passed qualifying exam \_\_\_ YES/NO \_\_\_\_\_

Relevant courses taken at USC or elsewhere:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Relevant experience (e.g., internship, industrial experience)

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Please attach a CV and a personal statement as to why this program is of interest to you.

## Application to IRES program—recent graduates and postdocs

Name: \_\_\_\_\_

Your institution: \_\_\_\_\_

Email address: \_\_\_\_\_

Your major (e.g., physics, electrical engineering...): \_\_\_\_\_

Citizenship status (circle relevant one): \_\_\_ US citizen \_\_\_ US permanent resident \_\_\_\_\_

(This program is restricted to US citizens and permanent residents.)

Graduate Grade Point Average (GPA): \_\_\_\_\_

Dissertation topic: \_\_\_\_\_

Relevant experience (e.g., internship, industrial experience, visiting position...)

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Please attach a CV and a personal statement as to why this program is of interest to you.