



## **SAN JOSÉ - DUBLIN SISTER CITY PROGRAMME EXCHANGE SCHOLARSHIP**

As part of the San José - Dublin Sister City Exchange Programme, Dublin City University is now inviting applications for a 2012 San José - Dublin Sister City Programme Exchange Scholarship. This Scholarship is an industrial postgraduate research scholarship in the area of Capacitive Sensor Development. Under the terms of the Scholarship the successful candidate will undertake research in [Dublin City University \(DCU\)](#) and [San José State University \(SJSU\)](#), as well as an internship with Silicon Valley-based company, [Cypress Semiconductor Corporation](#). Cypress headquarters are in San Jose, California and the company has manufacturing plants and design facilities in six other states in the US, and in the Philippines (Manila), India (Bangalore, Chennai), China (Shanghai), and Ireland (Cork).

### **The Project:**

As part of a global team of engineers and scientists from San Jose and the Ukraine, the successful candidate will work in the area of Capacitive Sensor Development, developing new touch screen sensor patterns and stackups to improve the performance of the cutting edge technology behind capacitive touch screens.

He/she will work on the design and the creation of experiments to validate his/her designs. The project will involve simulation using 3D electric field simulations using the industry standard tool, COMSOL.

### **Eligibility:**

The selected candidate will have an honours Bachelors degree (minimum 2.2), or a Master's degree, in Electronic Engineering or Applied Physics and will register in DCU for a research Masters degree.

The scholarship will be awarded on a competitive basis with academic track record and other supporting information being considered.

The selected candidate must satisfy visa entry requirements of the United States.

### **Scholarship Value and Benefits:**

The Scholarship is valued at over USD\$30,000 and covers all relevant expenses in Year 1, and tuition fees in Year 2. In Year 1, DCU tuition fees are included (non-EU candidates are expected to fund the difference between EU and non-EU fees), along with international airfare and, while in SJSU, tuition fees, book expenses, meals and accommodation. A stipend will be paid during the initial period in DCU, and the company will support the student for the 4 months he/she is on internship. In Year 2, DCU tuition fees will be paid.

## Scholarship Programme:

YEAR 1			YEAR 2
SEMESTER 1 Oct – Dec 2012	SEMESTER 2 Jan – May 2013	SUMMER INTERNSHIP June - Sept 2013	RESEARCH & WRITE-UP
DCU	SJSU	CYPRESS	DCU
Up to 4 training courses (20 credits) + initial research planning (a)	Up to 3 training courses (9 credits) + company-based practical experience (b)	Research internship at Cypress Semiconductor Corporation (c)	Complete research & write-up in DCU (d)

The Sister City Exchange Scholarship will initially utilize a research master's model, incorporating 12 months of a planned post graduate academic/internship curriculum for the DCU exchange student, directed towards an industrial / collaborative Master's in Science or Engineering.

The four components of the model are:

- a) Y1 October to December: semester course work at DCU (up to 20 credits, comprising 4 x 5-credit courses);
- b) Y1 January to May: semester course work/company-based practical experience (up to 9 credits, comprising 3 x 3-credit courses plus 20 hours per week company-based practical experience);
- c) Y1 June to September: full time (40 hours per week) research internship at sponsoring company, and;
- d) Y2: research completion and thesis write up in DCU

*Note on academic award: DCU regulations allow for a Master's Degree by Research to be undertaken in the context of collaboration with enterprise. The awarding of the Master's is based on the submission of a thesis, which will be judged by the same academic standards and through the same examination process as applies to all Master's Degrees by Research in DCU. At the time of initial registration an agreement between the external organisation(s) and DCU is put in place which covers such issues such as funding, intellectual property ownership, details of the time the research student will spent in the organisation(s) and on campus at DCU and the role of the organisation(s) in the supervision of the student. DCU and SJSU will separately issues transcripts attesting to the student's credit achievements in taught courses. A Master's Degree by Research will be awarded by DCU on successful completion of all elements.*

### Enquiries:

Informal enquiries can be directed to Dr Conor Brennan, School of Electronic Engineering, DCU: [conor.brennan@dcu.ie](mailto:conor.brennan@dcu.ie)

### Application:

Full details of the Scholarship and the Application Form are available on the DCU website at: <http://www4.dcu.ie/graduatestudies/scholarships-opportunities.shtml>

Applications, on the official application form, must be emailed\* to [graduate.research@dcu.ie](mailto:graduate.research@dcu.ie) no later than **5pm on 23<sup>rd</sup> August 2012**.

\*Please clearly indicate "San Jose DCU application" in the subject line of the email.