Software Engineering Research Internship (PRAEE0112)

Apply here

Start date
April 2022

Duration
6 months

Languages
Good spoken and written English levels are required
(B2 onwards)

Location
Cambridge, England
Home to the world-famous University of Cambridge, dating back to 1209, this historical city has beautiful architecture and majestic college buildings aplenty. With fascinating museums, atmospheric pubs, fine dining, incredible street food and ancient colleges all jostling together in the city centre, as well as the beautiful riverside and open green spaces, you are guaranteed a great experience.

Are you eligible?
Are you a registered student?
Or
Are you eligible to participate in the Erasmus+ programme?

Benefits
See website for details of all ESPA benefits. For all internships over 6 months, additional benefits will be paid. Details available at interview.

Role

This is a fantastic opportunity for a software engineering student, to gain hands on experience at a world leader in ultra-low-cost flexible electronics. Mentored throughout, you will take ownership of a completely new idea to explore how to automate the layout of the blocks on an integrated circuit when given a set of design rules and spec for a given application. At present this is largely drawn manually using ECAD software and is very time consuming. This important new concept will put you at the cutting edge of the industry, making rapid deployment to VLSI(Very Large-Scale Integration) a great addition to your CV and career prospects.

Tasks

- Automate the creation of IP blocks, e.g. memories to a given set of design rules
- Consider all aspects of VLSI IP, in addition to layout, the netlist (schematic), behavioural model, timing view, test view.
- Initially working at block level, this may be extended to polygon level layouts.
- Polygon level layouts to be optimised with design rule information

Preferred Skills

- Degree in software engineering. The host is flexible on programming languages as this is a brand-new concept.
- Knowledge of VLSI design advantageous
- Familiar with working in UNIX.
- Some experience of Cadence would be good.
- Ability to apply yourself and take ownership of a project.

The Host Company

This award-winning host's novel products are being adopted by a growing base of global companies across diverse markets, including consumer goods, games, retail, pharmaceutical and security. With a billion-unit production facility, the host company's unique, patented technology platform opens up the opportunity to invent entirely new applications for electronics. Their mission is to create more connectivity, create more designs and create more devices. With staff from over a dozen countries, covering 5 continents, the company culture promotes an open and collaborative environment, committed to delivering a new generation of electronics to address real world issues.