DEPARTMENT OF COMPUTING
CORPORATE PARTNERSHIP PROGRAMME

Facilitating interactions between companies and students at the Department of Computing
The Corporate Partnership programme was introduced in 2004 to facilitate interactions between industry and the department. In particular, we are able to simultaneously support students, throughout their time at Imperial, and connect them with future employers from some of the most exciting industries around the world. The main benefits of CPP membership are:

**Recruiting our students**

Members gain access to the CPP Portal to post jobs, events and view students CVs - in order to contact them directly. Any opportunities (graduate jobs, internships, events and more) you may have can also be advertised in the weekly newsletter (more info below).

**Applications of Computing in Industry (ACI) talks**

Priority access to booking slots for our popular lecture series – please see below for more information.

**Prizes, awards and sponsorship (benefactor level)**

Prizes are a great way to reward students for their hard work and to build relationships with them early on. Prizes can be offered for distinguished project work (regardless of if you've pitched an idea). e.g., Entrepreneur First Prize for most entrepreneurial MSc project. They can also be offered for distinguished performance in exams - previously we’ve had prizes for top first year students.

**Events**

On campus - We can book space directly within the department and host events for our partners. These can be industry specific or related to key skills like CV workshops or mock interviews. We can advise on the best times for these and make sure it doesn't conflict with exams and other events. On campus events are usually working hours only. Off campus - We can advertise any off campus events you'd like to run for students via our weekly newsletter. These can include any topics and demonstrations you’d like. We can advise on the best times for these and make sure it doesn't conflict with exams and other events and these events can be outside of working hours if you wish.

**How do we join?**

Please email doc-cpp@ic.ac.uk stating your interest and we will send you an application form and payment details. There are two levels of membership to the CPP:

- *Member* - £1500 (inc VAT) per year
- *Benefactor* - £6000 (£1500 (inc VAT) + £4500 (zero VAT) donation) per year

All money goes into a fund for students providing prizes, travel grants, equipment, hardship funds and more.
OTHER WAYS TO ENGAGE WITH OUR STUDENTS

Weekly newsletter

We have a departmental newsletter that is sent out to all undergraduate and postgraduate students (including PhD students) every week during term time. If you have any opportunities you’d like our students to know about please send them through to doc-cpp@ic.ac.uk. It would be great to have a ~200 word summary of the role, including how to apply and any relevant contact details.

Applications of Computing in Industry (ACI) talks

This series of technical presentations are designed to complement our students' studies by showing how theory is applied in practice and by describing interesting technical challenges in industry and how our partner organisations are addressing them. We would also welcome you to include a section on careers and working within your organisation if this is relevant. The talks run in the first 6 weeks of the Autumn and Spring terms. You can find information on talks we've had previously at imperial.ac.uk/computing/industry/aci/

Industrial placements and internships

An Industrial Placement is a compulsory part of both our four year Computing Masters in Engineering (MEng) and our four year Masters in Mathematics & Computer Science (MEng) degree programmes. Students in their penultimate year will undertake an assessed placement as part of their degree programme. MEng Computing (6 months) and Maths & Computing students (4 months)

Every year over 100 students undertake an Industrial Placement in a wide variety of companies. Recruiting students on an Industrial Placement is one of the most effective ways of attracting world-class candidates upon graduation. At the end of their placement students are expected to deliver a presentation about their work and experience. There is more information on providing a placement at imperial.ac.uk/computing/industry/placements/

Internships can also be offered throughout the summer for any/all students in the department (except those who are taking part in the placements). These can be advertised through the portal and the weekly news-letter. Timetable of placement procedure:
Projects

Students in the Department of Computing undergo a number of projects during their time here. Group Projects should be suitable for 4 to 6 students with an accent on designing, implementing and integrating a broad set of software and/or hardware components.

Individual Projects should involve the in-depth exploration of a specific problem, with the accent on good design, innovative use of algorithms and thorough evaluation.

Industrial involvement is welcomed in projects, although there must be an academic willing to assume nominal responsibility, to coordinate visits etc for the 3rd year and MSc projects. Typical commitment from an industrial partner involves two or three meetings, and ad hoc email support for queries from the students. Specification of projects is open-ended, requiring only the title and a free-text description. Ideally the latter should motivate the project, discuss the technical challenges involved and outline any support available to the students.

An example Group Project specification that we have previously run with a betting company is:

**Title: iPhone Event Outcome Prediction Application for a betting company**

**Description:** The company allows customers to take or offer bets on various events occurring (e.g. the outcome of a football match) at specified odds.

Where two customers agree on the odds but have opposing opinions about the outcome, bets are matched together. The company makes its money by taking a small commission from each customer's net profit in a given market.

It is very interesting to consider how this financial market can be used to predict the outcome of various events. For example, the outcome of the 2008 US election was known with 98% certainty for days before the actual election.

Your challenge in this project is to write a mobile application for an iPhone which uses market data, liquidity, movement etc. to allow customers to see what the statistically most likely outcome to an event is.

This could be as mathematically sophisticated or as interfaced-focused as the group would prefer, although obviously any worthwhile end-product should be a combination of the two.

An Individual Project specification example is as follows:

**Title: Data Placement and Migration Strategies for Virtualised Data Storage Systems**

**Description:** Modern hard disks are divided into zones, each of which has (a) a different capacity and (b) a different transfer rate. The allocation of data to zones therefore has a significant influence on the average response time experienced by I/O requests. Ideally we would therefore like to allocate the most frequently accessed data to the zones with the highest data transfer rates. Of course, since data access patterns change over time, it is also necessary to develop strategies for dynamically migrating data between zones (so that more frequently accessed data is migrated to faster zones).
## OVERVIEW OF PROJECT TIMETABLE

<table>
<thead>
<tr>
<th>2nd Year Group</th>
<th>3rd Year Group BEng and MEng</th>
<th>Final Year Individual</th>
<th>MSc Individual</th>
<th>MSc Group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theme of project</strong></td>
<td>Build a great multi-user web or mobile application</td>
<td>Design, build, integrate and test a broad multi-component system with emphasis on group and teamwork</td>
<td>Design and implement a non-trivial modeling or software artefact with emphasis on focussed problem solving</td>
<td>Design, build, integrate and test a broad multi-component system with emphasis on group and teamwork</td>
</tr>
<tr>
<td><strong>Method of proposal</strong></td>
<td>3 minute presentation on project pitch day</td>
<td>Submit brief for project allocation database</td>
<td></td>
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</tr>
<tr>
<td><strong>September</strong></td>
<td></td>
<td>Registration of interest opens for companies</td>
<td>complete projects and make presentations</td>
<td></td>
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<tr>
<td><strong>October</strong></td>
<td></td>
<td>Students start work on projects - briefing by company &amp; academic supervisor</td>
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<tr>
<td><strong>November</strong></td>
<td></td>
<td></td>
<td>Registration of interest opens for companies</td>
<td></td>
</tr>
<tr>
<td><strong>January</strong></td>
<td>Registration of interest opens for companies</td>
<td>complete projects and make presentations</td>
<td>Registration of interest opens for companies</td>
<td>Students start work on projects - briefing by company &amp; academic supervisor</td>
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<tr>
<td><strong>March</strong></td>
<td>Late March - briefing day, during/after which students select project</td>
<td></td>
<td>Students start work on projects - briefing by company &amp; academic supervisor</td>
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<tr>
<td><strong>May</strong></td>
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<td></td>
<td>complete projects and make presentations</td>
</tr>
<tr>
<td><strong>June</strong></td>
<td>complete projects and make presentations</td>
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OTHER WAYS TO ENGAGE WITH OUR STUDENTS

University careers service
Imperial College London has a central careers service so we would recommend getting in touch with them if you have an opportunity that extends to other disciplines. They also arrange careers fairs and university-wide events. More information can be found here: http://www.imperial.ac.uk/careers/employers/

Competitions
Setting our students a challenge with prizes involved is a great way to engage with them and get them talking about your company. Previous competitions have included an image de-blurring challenge which resulted in some really fantastic work from our students.

DoCSoc
The student computing society DoCSoc run events for computing students, more info can be found at https://docsoc.co.uk/

PhD/research collaborations
Please get in touch if you have any specific requests for research collaborations in the Department.

If you have any questions please contact us using the details below, we look forward to hearing from you.

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