Engineering Tripos Part IIA Project, GM2: Technology for the Poorest Billion, 2020-21

Leader

Dr A J Kabla [1]

Timing and Structure

Thursdays 11-1pm, and Mondays 9-11am plus afternoons. This project involves a couple of sessions in Lent to discuss possible project opportunities.

Aims

The aims of the course are to:

- To introduce students to the challenges of designing and innovating with technology in the context of international development.
- To provide students with opportunities to learn hardware and software rapid prototyping skills.
- To develop students' skills with project development, open collaborations and documentations writing.

Content

The project brings hardware design challenges from international development and humanitarian contexts to undergraduate Engineers. Students will be challenged over the course of four weeks to prototype and test solutions using open source technologies, and document their progress. Students will be working in the Dyson Centre where possible, and a limited budget will be available to them to create their prototype. Principles of interdisciplinarity, openness and collaboration are key to successful international development projects. Students from all areas of engineering are welcome to join this team-based activity where complementary skills are an asset.

The project is developed and offered in collaboration with the Centre for Global Equality [2].

Centre for Global Equality

ACTIVITIES

1. Lent - 2h afternoon session (date/time tbc) : Lara Allen, Director of the Centre for Global Equality, will present some of the most pressing challenges faced by the poorest billion on the planet, and cover a number of success stories, but also highlight failures and works in progress.

2. End of Lent term - 2h session (date/time tbc) : Open discussion about projects of interest and team activity.

3. Start of IIA project period - allotment of team project : to be determined with partners.

4. Project Week 1: Developing a proposal including costing. Identifying team strengths and weaknesses, setting up work-plan and roles for the project development.

5. Week 2/3: Early prototype development.

6. Week 3: Interim presentation, preliminary feedback from judging panel.

7. Week 3/4: Development of final prototype, project report, online documentation et video demonstration.

Coursework

Coursework	Due date	Marks
Proposal/team presentation/Budget description	Thu project week 2 (20 May 2021)	15 (5 individual)
Interim presentation	Mon 31 May - Tue 1st June 2021	15 (5 individual)
Presentations	~ Tue 8 June - Wed 9 June 2020, time to be arranged during the project	20 (individual)
Final Report + Online Submissions	Thu project week 5 (10 June 2021), 4pm	30 (5 individual)

Examination Guidelines

Please refer to Form & conduct of the examinations [3].

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Links
[1] mailto:ajk61
[2] https://centreforglobalequality.org/
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