About Us
TEDI-London is a collaborative, design-led engineering institute founded by the three PLuS Alliance partners – Arizona State University (ASU), King’s College London (King’s) and UNSW Sydney (UNSW). When fully operational, TEDI-London will offer a new type of engineering education for future engineers. Our flexible, project-based programmes will empower students to become independent, curious learners with a global, future-focused outlook. As well as offering students an innovative new way to study engineering, the vision has been developed to attract students from diverse backgrounds to consider engineering as an option for study. With a global shortage of engineers, attracting more people to the profession is paramount to ensure engineered solutions to global challenges. TEDI-London will do this.

TEDI-London’s vision is to transform engineering education to transform lives – this means preparing students with the skills and knowledge to identify and solve global challenges. With a burgeoning ageing population globally, dementia is identified as the biggest global health challenge of the current and future generations. We at TEDI-London have therefore decided to make dementia our global challenge topic for our 2020 Summer School projects.

Why dementia projects?
An ageing population is currently viewed as a major societal problem that needs addressing. However, in Japan the ageing society has been a key motivator and driver of innovation, particularly technology-driven innovation. With an ageing society comes an increase in dementias, making it a key global health challenge. 47 million people globally live with dementia, and this is set to reach 82 million by 2030, with 1 new case diagnosed every 3 seconds. Dementia is a condition that results from a variety of brain illnesses, meaning dementia is not a single disease, and can affect people in different ways depending on the type of dementia. It is chronic and progressive, with no cure currently, and affects thinking, memory, language, emotions, behaviour and inhibits the ability to perform everyday activities. This means people with dementia are not only stigmatised and socially excluded, but family members and carers are also greatly impacted. Early diagnosis, improved quality of life and better awareness, understanding and support of dementia in society are all critical to tackling this major global challenge. We want to follow Japan’s lead and embrace this challenge as a driver of innovation.

Summer Schools 2020
TEDI-London’s Summer School 2020 students will be set the challenge of creating innovative solutions to make Canada Water a dementia-friendly environment, as part of TEDI-London’s role in British Land’s Canada Water Masterplan: https://www.canadawatermasterplan.com. These projects will require students to understand the problem through research and consultation, then conceptualise and prototype practically viable and user-centred technological solutions, all in collaboration with stakeholders from industry, the community and people with dementia. These projects will then be showcased to industry and the community, with pitching panels offering opportunities to further develop successful projects.

Students
As the global challenge of dementia is multifaceted, TEDI-London encourages multidisciplinary students to address this challenge. Project teams may include engineers, architects, designers, computer scientists, social scientists, healthcare, business and performing arts students, as we believe the knowledge from these different disciplines combined will lead to better, more innovative solutions. What is important is students value diversity, global perspectives and a
desire to be challenged, to learn from others and to experience working with a broad range of stakeholders. Students must be open to the idea that people with dementia are experts of their own experience, necessitating their input into solutions.

Working in multidisciplinary teams from different countries on real-world projects will give students a unique learning experience and contextual understandings. In addition, the experience of co-designing solutions with people with dementia and their carers, community leaders, local businesses and industry further demonstrates why TEDI-London 2020 Summer school offers an exceptional learning opportunity for students, that in turn benefits the wider community.

**Projects: to create novel, feasible and commercially viable projects**
1) **Outdoor Environments**: working in partnership with a local community enterprise, create a dementia-friendly outdoor community space
2) **Residential**: working in partnership with a major retailer, create a residential dementia-friendly solution, ensuring an intergenerational `sky city’ is integrated into the ground level town
3) **AI & Big Data**: create a supportive system that would enhance the safety, support or quality of life of people with dementia and their carers within the local area

**Duration & Attendance**
The summer school, run in London, is divided into two parts. The first, a project-based learning experience will run for five weeks full-time, 1st June - 3rd July at TEDI-London. The second part will run for five weeks full-time from 6th July - 7th August. During these second five weeks, students will undertake an industry placement at TEDI-London, an opportunity to work in a start-up, develop content knowledge by facilitating workshops for young people and creating course-specific learning nodes, site visits and ending with a project evaluation. Attendance for the full ten-week programme will gain course credits equivalent to two modules.

**Student Activities & Learning Outcomes**
At the summer school, students will undertake self-directed learning, peer learning with students from around the world, expert workshops, mentoring, collaborative working with partners and stakeholders, as well as developing in-depth, content-specific knowledge and project-based group work. Skills developed include: multidisciplinary teamworking, research, evaluation, critical thinking, analytical problem-solving, multi-channel communication, self-reflection, independent thinking, leadership, project management (i.e. planning, design, delivery), documentation, report writing, applying knowledge, market research, stakeholder management, working with dementia, client work and pitching.

**Summer School Overview:**
*Project-based learning:*
Week 1-5: Market research; Stakeholder-centred co-design in complex systems; Prototype development; Design sprint; Pitching & Industry showcase

*Industry-based learning:*
Weeks 6-9: Supporting TEDI London in its start-up activities
- running workshops for young people teaching engineering and design
- developing learning nodes
- participating in and supporting business activities
- site visits to develop best practice knowledge on dementia research and innovation
Week 10: Project evaluation & reporting

**For more information, or to find out how to apply, contact Sarah Campbell at:**
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