

THE UNIVERSITY of EDINBURGH School of Engineering

Engineering Society

Industry Engagement 2024

Student Societies at the School of Engineering





CHEMICAL ENGINEERING SOCIETY The University of Edinburgh













Scan QR Code to watch our Student Societies video





Hyped

HYPED, the University of Edinburgh's Hyperloop Team, is more than just another student society. We're a collective of students aiming to revolutionise transportation through the development of Hyperloop technology.

TECHNICAL

Annually, HYPED produces a hyperloop pod prototype to present and compete with in the annual Hyperloop competition - EHW. Each rendition of the prototype comprises new innovations including incorporation of new technologies. We are currently in an active development the first levitating pod prototype in the UK.

RESEARCH

HYPED's research team focuses on full scale exploration of the Hyperloop concept. For the 2024 year, our focus is on refining vacuum maintenance and pod design to significantly lower the operating energy demand of the Hyperloop, elevating it as a sustainable transport solution.

OUTREACH

HYPED's Outreach Team plays a vital role in promoting Hyperloop technology and STEM to a diverse audience. We organise a range of activities, from participating in conferences to running interactive workshops for various age groups. Through these efforts, we aim to inspire the next generation of engineers and innovators. The most exciting thing about HYPED is the startup-like ecosystem we've cultivated. Working on pioneer technology allows us to gain invaluable work experience that's both dynamic and impactful. They get to see the tangible outputs of their work, whether it's in the form of a physical pod prototype, a research paper, or a community outreach program. This real-world experience is something that's hard to find in a classroom setting and adds an extraordinary layer to their university journey.

If you would like to engage with a group of highly motivated future engineers, do not hesitate to get in touch with us at team@hyp-ed.com/





Edinburgh University Formula Student

Edinburgh University Formula Student (EUFS) is a multi-disciplinary automotive and robotics society. We develop and build vehicles for autonomous and traditional racing from the ground up: this culminates in an annual competition at Silverstone against other universities from all around the globe. Founded in 2014, the goal of EUFS is to enrich students' education by giving them the opportunity to work on exciting and ambitious projects. A key art of this is to develop student's practical and soft skills which will contribute to their success in their future. The team wants people from all academic backgrounds to experience Formula Student and develop these skills while working with cutting-edge technology. Our members represent twelve out of the twenty-two schools that make up the University of Edinburgh, from humanities to engineering, and everything in between. We offer students the ability to put their knowledge to practice, to be part of a close-knit motorsports team and for some to achieve a dream.

Through our amazing sponsors we have been able to engage in different industries through our Sponsors' days, Launch events, and other talent networking opportunities where these companies can see our students as prospective employees. We also work with our sponsors to obtain valuable teaching on ground breaking technologies in the autonomous industry and help students be at the forefront constructing new solutions. EUFS has been the most successful team in the AI classification in the Formula Student UK competition to date with six wins in a row. This year we are hoping to break new barriers in the competition by running our fully developed in house electric autonomous race car.

Contact us through the QR Code or emailing: eufs@ed.ac.uk







Endeavour Rocketry Society

Endeavour is the University of Edinburgh's student run rocketry society, comprising of four unique technical teams (Darwin, Maxwell, Bayes & Rankine) and outreach, with each offering exciting projects and challenges. Founded in 2019, we have quickly grown to be one of the largest engineering societies at the University attracting students from across several different schools.

Darwin is our largest team, focusing on rocket & payload design, manufacture, and testing. The Darwin team takes part in many competitions against top universities both domestically in the UK and internationally. Previous competitions include Mach in Scotland, and the European Rocketry Challenge (EuRoC) in Portugal where the team has seen success taking home various awards.

Maxwell is developing a liquid rocket engine to replace buying off the shelf solid motors. In doing so, they have taken part in the Race-to-Space competition, along with other university teams also developing engines. Bayes on the other hand is working on thrust vector control, to keep the rocket steady during flight. Current developments of this are focused on a hopper vehicle to verify the software and hardware.

Our newest technical team Rankine is working on more conventional aeronautics through the development of an RC aeroplane. We will be able to use this to test other technologies such as our payloads. Finally, we also have an enthusiastic outreach team which attends schools to inspire the next generation of rocket scientists!

HOW WE WORK WITH INDUSTRY

As a team full of passionate space enthusiasts, we are aspiring to create a pipeline to industry for our members. Some examples of current industry engagement include sponsorships, events, technical advice, and advertisement of internship/graduate roles. We have also previously completed some commercial research projects.

We are looking to collaborate with companies who recognise the soft and hard skills that students develop through these projects and see the value in contributing to this development.

Contact us at <u>lead@endeavourockets.com</u> or follow us on Instagram @endeavourockets. Additionally, you can also explore our website: <u>https://www.endeavourockets.com/</u>





Engineering for Change

Engineering for Change (E4C) is a student led society at the University of Edinburgh. We aim to encourage engineering students or those interested in design to think in terms of sustainability and over the social effects of a project during their time at university and in their future career. We currently oversee nine projects, detailed below, which help our members do this, as well as run workshops and talks throughout the year. As well as supporting our members, we hope to make a positive change in the communities we work in.

E4C'S AIMS & OBJECTIVES

E4C acts on both a local and an international scale to tackle social and environmental issues through our projects. In Edinburgh, we work within the Winds of Change project to build a wind turbine for the homeless charity The Cynerians to provide green energy on their campus. We also collect, recycle, and repurpose coffee cup waste on campus in our Precious Plastic project. Our research team BioBlocks is currently undergoing engineering- and design-based research on fungal mycelium-based materials to compete with concrete in the built environment when possible. We also work with a community garden within the AquaEats project to build an aesthetic and practical aquaponics system for local use. Furthermore, our newest project TideTech aims to create a practical template for building underwater turbines from locally sourced materials in Small Island Developing States (SIDS) with the aim to better supply these population-rich areas with tidal energy. Internationally, we work with the NGOS FAST in Romania, EcoSwell in Peru, and Community First in Cambodia. We send students every summer to work with these teams to support local communities and to implement drinking-water treatment and sustainable aquaponic technologies. Additionally, our Wind Over Waves project--focusing on offshore wind energy technology--competes in the annual international "Floating Wind Challenge" project and has received recognition for their previous designs.

E4C'S INDUSTRY ENGAGEMENT

Il our projects are aspiring to create links with companies through learning, funding, or representation. The Winds of Change project is looking for companies that wish to sponsor as well as to offer technical advice for the design of their large-scale wind turbine. Precious Plastic, AquaEats, TideTech, and Wind Over Waves are also searching for similar relationships. The BioBlocks project is interested to learn from organizations in the biomaterial industry and would be keen to receive support, advice, and resources pertaining to their incubation process.

Sponsoring and association would highly benefit companies expanding their outreach to local communities with whom we work and to committed students working within our projects, possibly even for after their time at university.

CONTACT ENGINEERING FOR CHANGE

Please contact us at <u>engineering4change.ed@gmail.com</u> or check out our social media presence (e.g., Instagram and LinkedIn) to learn more about us and our projects!







Academic and Discipline Societies

In addition to the Student Innovation Groups there are also societies related to each of our teaching disciplines. These focus on creating a community feeling between the students but also often organise events with employers such as presentations or site visits.

Chemical Engineering Society

Hello! The Chemical Engineering Society mainly focuses on providing a strong community of chemical engineering students at Edinburgh beyond academics. We organise frequent socials for the community and collaborate with other societies as well.

Part of our vision is to introduce the students to industry, which we achieve by hosting Industrial Insight seminars. We connect with recent chemical engineering graduates from the university, and invite them to come speak about their journey in Edinburgh and what they are currently doing. This gives students the opportunity to hear directly from someone who learned in a similar environment to them, and presents them with insight to how life in industry, pursuing a PhD, or otherwise, may look like.

We are also open to bringing in additional perspective to these talks, so, if your company is looking to reach out to the chemical engineering community at our university, to introduce placements, internships, or even networking events, we are happy to expand the scope of our talks.

We can be contacted at edchemengsoc@gmail.com

Civil Engineering Society

The Civil Engineering Society has strong alumni and sponsorship links with many different companies in both Design and Construction sides of the industry. We organise talks, presentations and informal coffee mornings with industry professionals to provide informative networking opportunities. We also provide our peers with news about placement and graduate opportunities. We have strong links to academics and work with them to give our members an insight into the cutting edge of the Civil industry "

If you have any questions, you can drop us a DM on our Instagram @edunicivsoc or email us at civsoc@ed.ac.uk.









Academic and Discipline Societies

In addition to the Student Innovation Groups there are also societies related to each of our teaching disciplines. These focus on creating a community feeling between the students but also often organise events with employers such as presentations or site visits.

Institute of Electrical and Electronics Engineers Student Branch

The IEEE Student Branch at the University of Edinburgh is a community of students passionate about the field of electronics and electrical engineering. As part of the Institute of Electrical and Electronics Engineers (IEEE), the student branch provides a platform for networking, learning, professional development, as well as liaising the relationship between student members and the IEEE.

The branch gives students the opportunity to explore emerging technologies, gain practical skills, and connect with academics and professionals within the field and various interest groups. This includes activities such as workshops, seminars, competitions, conferences, and collaboration and knowledge exchange among students and professionals in the field of electrical and electronics engineering within the university and across universities in the UK & Ireland IEEE Section.

Contact us at: <u>UoE-IEEE@ed.ac.uk</u>

Mechanical Engineering Society

The mechanical engineering society, MechSoc, aims to work with industry to foster an open dialogue between students and employers to help students learn more about engineering careers and the opportunities available in the working world with an engineering degree.

MechSoc are best contacted via messaging their Instagram, @mechsocuoe, they can also be contacted through email: <u>mechsocuoe@outlook.com</u>





