



THE UNIVERSITY of EDINBURGH
School of Engineering



Employ.Eng Newsletter

Issue 5: December 2021

Welcome

Welcome to this issue of the School of Engineering Employer Engagement (Employ.Eng) newsletter! The newsletter is produced by the School of Engineering Placement Team three times a year with the aim to keep our employer partners informed about placements and other student focussed activities that might be of interest.



Medals awarded to Engineering staff and students that have made a significant contribution to solving Covid-19 challenges.

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Receiving this newsletter

You can download copies of our newsletters and find information on how subscribe/unsubscribe to our mailing list on our webpage: <https://www.employ.eng.ed.ac.uk/employeng-newsletters>

How to get involved

Placements

We are currently looking for companies interested in hosting placements starting in June/July 2022 for the following disciplines:

- Chemical Engineering
- Electrical Engineering (small number)

More information can be found in our [Placement Overview Brochure](#)

Please contact Engineering.Placements@ed.ac.uk to discuss possible opportunities further.

Alumni/Employer engagement

- Contribute to the Insights Programme (page 2)
- Write an alumni profile (page 3)

Follow the School of Engineering on Social Media

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University of Edinburgh Insights Programme

The University of Edinburgh Insights Programme helps students develop the confidence, skills and connections to consider a range of careers through introductions to Edinburgh alumni working in an exciting range of sectors and environments. We asked one of our students, Abd Al-Rahman why he signed up for the programme and what he gained from it.



Abd, June 2021 Insights participant

The motivation I had for signing up to the Insights programme was to help me choose exactly where I wish to work after I graduate. Though I know the general sector of engineering well, I wished to understand more where I would be best suited within there.

The Insights Programme was structured amazingly – the group at the University does a great job making the delivered content very easy to engage with as well as finding a great balance between doing my own work and speaking with Industry professionals (which I found to be especially invaluable).

I wasn't sure exactly how I would interact with the alumni involved and whether I would be able to relate to them. However, I quickly found that even with different backgrounds, the shared experience of going to University and deciding what to do after graduation – as this is ultimately one of the goals on the Insight programme—was plenty. The discussions with alumni were also very relaxed and comfortable. They felt more like an open space where we could talk freely and share thoughts, ideas and experiences.

Throughout the experience I realised that even if I initially go into an area I don't immediately click with, I'll still have a fantastic opportunity to develop myself and expand my skillset. Furthermore, any decision that I make will not be permanent and career paths are not linear (or even cubic!). With an end goal in mind and the right support, I can aim to be where I wish to be.

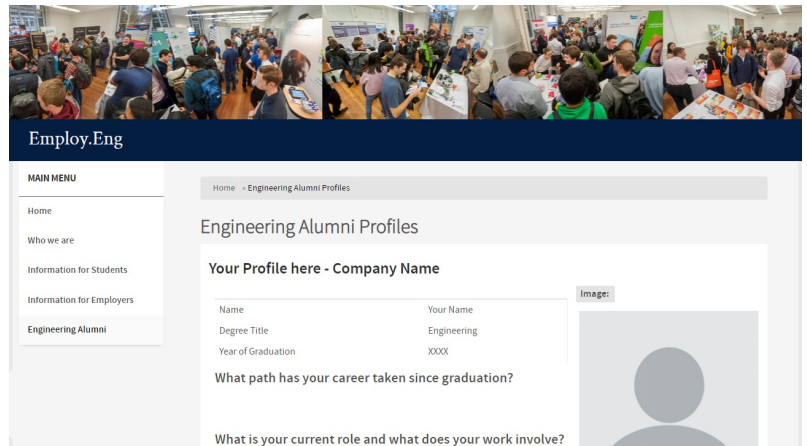
Thankfully I was able to complete an internship over the summer. I found that through participating in the activities within Insights, as well discussions with alumni, I was able to break down everything I had learnt during the internship and quantify the experience I gained.

I would strongly encourage more companies and alumni take part in Insights. You might not feel like you have enough experience but even just having gone to University and being in a job now can provide so much valuable information for students and the work required isn't too great!

If you have University of Edinburgh alumni working at your organisation who would be interested in taking part in the Insights Programme, you can find more information on our webpages. <https://www.ed.ac.uk/students/careers/insights>

Alumni Profiles

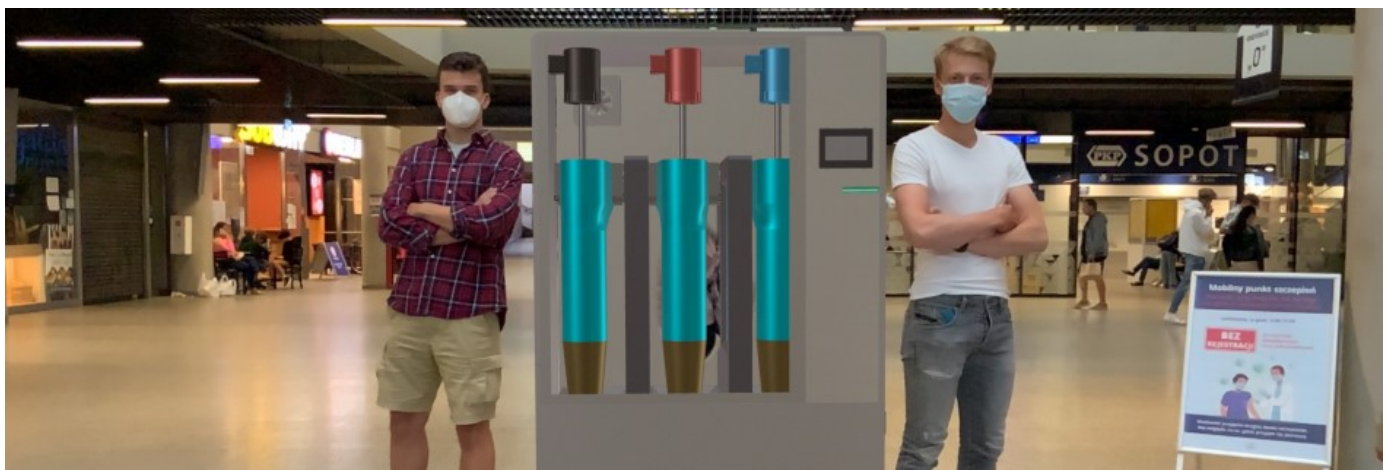
A year ago we introduced our idea for alumni profiles. The idea being to compliment the School's careers support by providing short profiles of alumni so that students can see where their degree can take them. Some of the engineers who took part in this year's "Interview an Engineer" activity with our new first years have kindly provided our first profiles and they are available on the [Employ.Eng website](https://www.employ.eng.ac.uk/).



If you would like to submit a profile for inclusion to inspire our students, please have a look the [existing profiles](#) and email Katherine Cameron at K.Cameron@ed.ac.uk. Katherine will send you the full proforma for completion which includes the consent form and privacy statement.

We welcome profiles from alumni at all stages in their career whether currently working in engineering or using their engineering skills outside of the sector.

Students win James Dyson Award with face mask recycling solution



Engineering students Aleksander Trakul (left) and Mike Ryan (right) won the James Dyson Award

Edinburgh engineering student Aleksander Trakul and his friend Mike Ryan, have been crowned National Winners (Poland) of the James Dyson Award 2021 for their innovative face mask recycling solution.

Working in Mike's garage, the friends set out to engineer a solution to the 129 billion of these single-use masks that are used and thrown away across the world every month and give disposable face masks a second life. They experimented with different processes and approaches, but with the same aims of sustainability, accessibility and scalability always in mind.

After testing and refining each stage of the machine's work – covering disinfection, shredding, cutting and melting of the face masks – they arrived at a complete system, which they named the XTRUDE ZERO.

You can read the full story on the School of Engineering's website [here](#).

Spotlight on Student Societies

In this issue we speak to Yashas the founder of the new outreach society Hands-On and HYPED report on their trip to the European Hyperloop Week.

Hands-On: a student-led STEM outreach society



The Hands-On Society have an initial meeting on the Meadows to launch soda rockets and attract new members.

Hands-On was established to empower university students to actively help inspire the next generation to pursue STEM degrees; specifically by making it more accessible and less intimidating. This society focuses on the design and facilitation of hands-on interactive activities for local community schools as well as the distribution of student-generated hands-on activity programmes to STEM educators globally.

The COVID-19 pandemic limited in-person community engagement leading to the current vacuum of STEM workshops in Edinburgh, which our society hopes to resolve by conducting hands-on activities in whenever COVID restrictions allow. Teaching and mentorship can be one of the most fulfilling volunteering experiences and this is an opportunity for university students to give back to the local Edinburgh community as well as being able to broaden their skill sets and improve their interpersonal skills, via collaboration, leadership, and event planning. Personally, I started this society as I was able to discover my passion for engineering through attending engineering outreach workshops when I was younger. I then graduated to the role of teacher and have led dozens of STEM workshops all over the world including the USA, Spain, Italy, India, Hong Kong, and China. These experiences have greatly impacted my aspirations to pursue a career in academia as a professor. I believe that this society will motivate university students to consider a career in education as well as helping future STEM enthusiasts to discover their passion.

STEM disciplines report the lowest degree retention and to ensure that students are properly equipped with the tools to thrive in such a demanding discipline I believe that it is imperative for these connections to be made at a young age. Collaborations with industry as a STEM Outreach society logically completes the path that starts from engaging inquisitive young students to consider pursuing a STEM degree and ultimately leading to a relevant career in a STEM field.

Hands-On is the first dedicated STEM Outreach society at the University of Edinburgh and as it builds towards becoming an expansive interdisciplinary initiative, fostering relationships with industry will legitimize our efforts and attract potential members. We would greatly appreciate any opportunity to collaborate with industry specifically since our interests align quite well in regards to community engagement and demystifying STEM subjects to make products and services more approachable. These industry partnerships would greatly benefit our society towards cultivating an appreciation for STEM in Edinburgh and help inspire the next generation to pursue STEM degrees. To contact us for more information, please email us at: handson@ed.ac.uk and follow us on [Facebook](#), [Instagram](#) and [LinkedIn](#) to stay up to date with our latest news!

HYPED attend European Hyperloop week



The HYPED team at European Hyperloop Week in Valencia (summer 2021)

From the 19th-25th July, HYPED participated in the first ever European Hyperloop Week in Valencia, Spain. Providing a location for all Hyperloop related discussions, it attracted teams and industry professionals from all over the world taking part both physically and virtually. It struck a delicate balance between the spirit of competition and cooperation. Teams and industry professionals from across the globe presented their proposals, discussed the hurdles we all face, and echoed the potential of Hyperloop technology for a cleaner tomorrow.

The Dynamic, Electronics and Propulsion sub-teams kicked us off with stellar presentations of our vision of the subsystems of a Hyperloop pod. They took onboard detailed feedback from the impressed judges and replied confidently to challenging questions posed to them. The Research Team's creative solution of incorporating a Hyperloop network crossing the major airports of the UK showed members of the public and the jury alike that the benefits of hyperloop are limitless with the benefit to society often compounded. Wrapping up our presentation docket was the Full Pod Design presentation by the Technical Team, it incorporated all subsystems within a rendered 3D model of our pod.

Evident during our time in Valencia was the camaraderie and inquisitive nature of all participants, regardless of team. Members engaged in frequent unofficial talks with their international counterparts including discussing developments in the field and ways to improve their designs. This signifies not only the high calibre of people involved in the community, but also resonates with the global demand for cooperation across technology and infrastructure. This conference was not merely an invitation to compete, but also one to learn. HYPED members took part with open minds, and an eagerness to expand their horizons.

HYPED is proud to have been a co-organiser of the first ever European Hyperloop Week alongside Swissloop, Hyperloop UPV, and Delft Hyperloop. The combined passion, excitement and dedication across all participating team members underscored the success of the event. It was a privilege to have engaged with other like minded teams and leaders of industry and we look forward to doing so again at the European Hyperloop Week 2022 in Delft, the Netherlands.

Gregory Dayao, Treasurer at Hyped



Careers Service Update

Advertising your vacancies and events

Remember we can help you promote your organisation and opportunities to our students and recent graduates by listing them on our online portal, MyCareerHub. We recommend this as a first step, and it's free of charge. <https://www.ed.ac.uk/careers/employers/list-your-vacancies-and-events>

We know recruiting a diverse workforce is important to you. Here's how we can support you reach target groups. <https://www.ed.ac.uk/careers/employers/list-your-vacancies-and-events/how-to-improve-diversity>

Looking to host a graduate internship?

The University of Edinburgh is proudly supporting Graduate Career Advantage Scotland (GCAS). GCAS is a new initiative that supports employers of all sectors and sizes, making it possible for them to create new impactful opportunities for graduates while boosting Scotland's economy. By taking part, organisations will benefit from funding towards the internship and access to new talent to bring fresh insight; as well as tailored support from the GCAS team.

Funding is allocated to employers offering a high-quality internship in Scotland:

- With clearly defined, tangible outcomes which is a developmental opportunity for the graduate and with a clear benefit to your organisation
- That are open to flexible working patterns, with a minimum of 16 hours per week
- In any sector
- Of any size
- Ending by 31st July 2022

Visit www.GCAS.co.uk/employers to find out more about your options



**Graduate Career
Advantage Scotland**

Data Protection

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