

UPDATE



MAY 2020

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IET The Institution of Engineering and Technology

IET FIRST® LEGO® League Final

1st Place Ch

Stewart
Stewart

Photography courtesy of John Glen Photography



The Institution of Engineering and Technology

IET FIRST® LEGO® League 2019/20 FINAL - The IET FIRST® LEGO® League inaugural Scottish Championship was held at Perth College UHI Academy of Sport and Wellbeing on 29 February 2020. The event saw 24 teams of young people aged 9-16 who qualified via regional tournaments to compete in the Scottish Final.

This season's challenge was entitled City Shaper, providing an architectural, structural, civil and environmental engineering theme within a city background where teams had to design and programme a Lego robot to complete a number of challenges, as well as being assessed on robot design and a (team) core values task, the teams also gave a presentation on how they would solve a real world (theme based) problem within their local community. These Innovation Projects including every thing from talking rubbish bins to a magnetic induction monorail.

The event proved to be a popular success with some phenomenal achievements from all the teams competing. 15 Awards were given out to winners on the day covering areas including Core Values, Robot Design and Inspiration. The 2nd place Champions' award went to McLaren High School from Callander with the Ayrshire team - Stewart Stormers taking the 1st place Champions' Award.



Regrettably due to COVID-19, we have had to cancel the planned Expos for this season's IET FIRST® LEGO® League Juniors. However, we have been working closely with Education Scotland's RAISE Officers to get Inspire sets out to those Education Hubs which are still open to support vulnerable youngsters and the children of key workers. The IET have very generously donated 36 Inspire Sets and WeDo Robots to these schools reaching from Thurso all the way down to Dumfries and Galloway.

This year's theme aimed at (6 to 9 year olds) is Boomtown Build, so what better way to inspire our next generation of architects and civil engineers? In Lieu of an Expo, we will link teams virtually to an engineer, so they can still talk about their LEGO® model and 'Show Me' poster. If you are interested in becoming a virtual judge and supporting this great educational activity, please send your details to info@esp-scotland.ac.uk

ESP SUPPORT - COVID-19

The ESP team are now set-up for home working and are available for calls, Skype/ Teams video calls and email as usual. Sector meetings are also being held and scheduled using Teams Video Conferencing to support the college network and ongoing communications across our sectors.

Successful meetings of both the Construction and Engineering Strategy Groups have now taken place via MS Teams with more meetings scheduled in the coming weeks.

We have a number of flexible online teaching materials available for college lecturing staff to use and we will inform you when materials become available. Contact info@esp-scotland.ac.uk for details on how to access these materials. The Teaching Materials brochure can be viewed [HERE](#)

Additional resources made available to ESP include:

- City & Guilds Offer free smartscreen e-learning resources (free for 3 months)
- [Eledude E-Learning](#) content for free until August
- The [IMI](#) is supporting the Automotive sector with free teaching resources, lesson plans, and tool-kits for all age groups.

Please get in touch if there is anything that the team can do to support your college and lecturing teams at this challenging time.

DIGITAL LEARNING ACTION GROUP

In discussion with both our Engineering and Construction Strategy Group members ESP has confirmed a priority for the future of college delivery. ESP is establishing a Digital Learning Action Group with subject experts and digital technologists to support the shift toward online learning as part of the blended learning approach. This will have a number of strands but will include working with industry partners and includes:

1. A collaborative approach toward online learning development
2. Utilising innovative technologies such as VR and our Immersive Hybrid Reality
3. A focus on e-assessment



A project has launched to recruit and train 100 new construction assessors across all of Scotland's construction colleges.

This is a two-year project targeting experienced tradespeople working in the construction sector. It is being driven by ESP and the Construction Industry Training Board (CITB), in partnership with 24 colleges, agencies and private training providers. The assessors will enable the efficient delivery of assessments of apprentices across Scotland.



Assessors will be recruited across a range of curriculum areas, including Carpentry & Joinery, Brickwork, Painting and Decorating, Interior Systems, Timber Frame Erection, Floor covering, Roof Slate & Tiling, Wall & Floor Tiling, Stone Masonry, Wood Machining & Plastering.

Colleges and training providers will continue to recruit individually, while the assessor vacancies will be promoted via a national campaign.

WIND & MARINE training network

ESP, and WMTN colleges supported the recent NnG Offshore Wind supply chain events at Musselborough, North Queensferry, Dundee & Aberdeen by presenting the network expansion and support plan for offshore wind.

The new WMTN colleges (North Highland College UHI, NESCOL, Dundee & Angus and Borders) have all now received Pruftechnik Laser alignment kits and are in the process of purchasing capital equipment for technician wind related course delivery.

NHC and D & A colleges have both been audited by DNV-GL to deliver Global Wind Organisation Basic Technician Training to the wind industry.

Energy Systems Catapult

ESP met with the Energy Systems Catapult (ESC) to investigate potential joint working.

Both parties identified a joint priority in Energy Efficiency and this is now being taken forward in Scotland with our colleagues in Energy Saving Trust and Scottish Government.

MAWORKING GROUP

The Modern Apprenticeship Working Group (MAWG) has expanded its remit in response to COVID 19.

Working with Colleges Scotland and the College Principals' Group, MAWG have written to the main external Sector Bodies/Managing Agents to investigate how we can jointly support apprentices and their employers through these challenging times.

Additionally MAWG members met with SQA Accreditation to investigate opportunities to help MAs nearing completion to gain their MA.

A CITB college group has been established with ESP's Construction Strategy Group and a number of work streams being taken forward.

Members and of MAWG have met with BESA, SECTT and SNIPEF to consider how the college sector can support their apprentices and employers with a meeting being arranged with the Construction Strategy Group to develop a response.

PDA DEVELOPMENT

A Microsoft Teams VC meeting for ESP's PDA development group was held on Friday 24 April. Both PDA in Advanced Manufacture and PDA in Industrial Automation have now been verified, coded and added to SQA website. Development of learning and teaching materials is continuing and should be available August/September 2020. Additionally these units will be brought into existing HN's where appropriate.

Hydrogen TRAINING NETWORK

ESP, in partnership with SGN, Orkney College UHI and Dundee & Angus College, have developed an online awareness tool in Hydrogen.

The expansion of the hydrogen economy is projected to make a significant impact on sustainable economic health. An online tool was developed aimed at a broad audience with the purpose of introducing a future career in hydrogen and its uses. The tool was piloted with six colleges and industry partners during April 2020 and was well received.

The tool will be available to all colleges via ESP website in May 2020 with a second phase provisionally due to start June 2020.



Through our work on the Energy Efficiency Competency Framework, ESP identified a significant gap in training provision across renewable and energy efficiency technologies. To address this, we have established an Energy Efficiency Training Network across Scotland's colleges supported by an SP Energy Networks award of £500,000 from their Green Economy Fund. The award is supporting the development of specialised renewables and energy efficiency training centres for nine colleges in the SP Energy Networks region to ensure they have the capability and capacity to train the future workforce.

This project is supporting significant capital investment in renewable and energy efficiency equipment, staff training and CPD in current and emerging technologies as well as supporting curriculum development. The project has realised key industry partnerships for the colleges helping to position them at the forefront of training for the future renewables and energy efficiency.

To date the project has realised circa £115k investment in ground and air source heat pumps affording colleges the ability to align future training for industry with EES priorities.

STEM Strategy For Education and Training in Scotland



The Second Annual Report for STEM Strategy for Education and Training in Scotland has been released by The Scottish Government.

The report updates on progress made over the last year with the STEM Education and Training Strategy and shows how Scotland has improved on the first year to further develop and deliver benefits for educators and young people through STEM initiatives.

Colleges engagement through ESP initiatives are highlighted in the report including MTa STEM kits, Greenpower, Subs in Schools and the IET FIRST® LEGO® League.

STEM LEADS FORUM

The most recent STEM Partnership Leads' Forum meeting was held on 6 February in Stirling. ESP and the Scottish Funding Council provided updates on ongoing STEM priorities and initiatives.

The UHI STEM Hub in Inverness gave an interesting overview on how they are supporting their whole region and in particular their engagement with local authorities. David Miller from Kelvinside Academy briefed the forum on NuVu; an innovative project based educational process which helps to develop young people's technical and creative skills. The next meeting will be held on 11 June via MS Teams.



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Energy Efficiency Scotland

In response to the launch of Scottish Government's 'Energy Efficient Scotland' (EES) programme, Scottish Government, ESP and the Energy Saving Trust worked in collaboration with Sector Bodies. The Quality and Skills Working Group was established in January 2019 made up of key partners and stakeholders involved in the energy efficiency skills sector:

The role of the working group was to:

- review current qualifications & competencies
- produce an accredited energy efficiency skills recommended set of minimum skills competencies - Competency framework
- build capability and capacity of renewable and energy efficiency training facilities
- raise the quality of trainers and lecturers qualifications in line with industry needs



AUTOMOTIVE TRAINING NETWORK
ELECTUDE

Four Additional Electude Lock Out Trainers have now been purchased with training for college staff to be organised for later in the year.

Our education partners at Electude have also kindly offered their support for Scottish colleges working in automotive. Automotive lecturers can now access the Electude E-Learning content for free until August with unlimited access for students and teachers to work from home as a gesture of good will in this difficult time. This will allow students to study from home and teachers can monitor and track their results.

Please contact Cat Treanor cat.treanor@electude.com to set up your site and help you get started.

KEY EVENTS

15-19 June 2020, Online	Young Professionals Green Energy Awards
14-15 September 2020, Glasgow	All-Energy & Dcarbonise 2020
15 October 2020, Glasgow	Scotland Automation & Robotics 2020
1 October 2020, Glasgow	SCOTBuild 2020

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