

Kieran Dalton Ysgol Friars, EESW Student of the Year Runner-up 2017

Kieran Dalton from Ysgol Friars, participated in the 2016-2017 EESW project, leading a team to design and construct a self-levelling platform able to be pre-set to return to any angle relative to the horizontal. They worked with the Photonics Academy of Wales at Bangor and won the Airbus award for *Best Application of Engineering and Technology* and were also selected by EESW for the 2018 National Big Bang Fair.

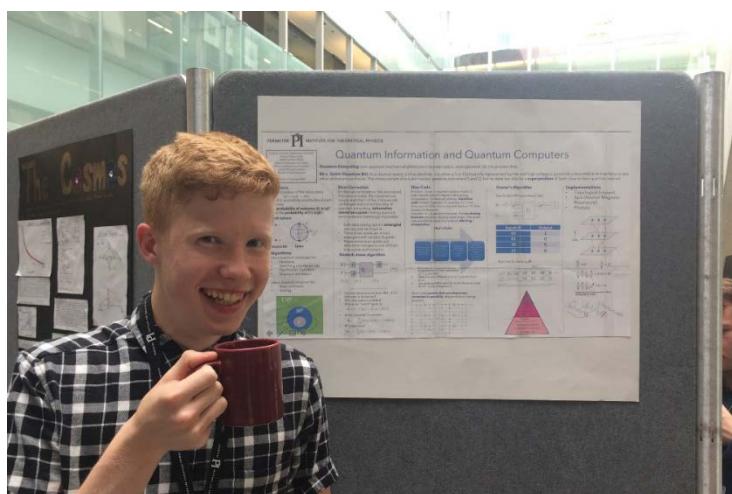
Kieran described how working in the laboratory was brilliant, challenging, and solidified his intention of studying physics! When asked to describe the process Kieran laughed and explained “*Beyond the photonics knowledge (there’s no better way to learn about something than spending 3 days trying to fix it!), the laboratory work helped me develop the skills required for methodical scientific investigation, leadership, and deadline management. Finally, it allowed me to work with and get to know some brilliant people.*”

When asked how it felt to complete the EESW project he said “*After many weeks of work, I distinctly remember the immense feeling of pride when, late one afternoon in a quiet laboratory, I added a final wire to a voltage comparator circuit, causing the LEDs to illuminate and the motor to whirr. This pride, compounded by weeks of solving hundreds of problems of various difficulty, will stay with me forever.*”

He described how the environment was very different to that of an A-Level classroom, and the EESW project provided a unique talking point for university

and internship interviews, a story which helped gain him a position studying Natural Sciences at Cambridge University, specialising in Physics.

In the future he hopes to pursue a career in experimental physics, specifically the application of quantum mechanics and cryptography.



Kieran Dalton displaying his work

Kieran Dalton Ysgol Friars,

Ail yng nghystadleuaeth Myfyriwr y Flwyddyn EESW 2017

Cymerodd Kieran Dalton o Ysgol Friars ran ym mhrosiect EESW 2016-2017, gan arwain tîm a oedd yn dylunio ac yn adeiladu llwyfan hunan-lefelu y gellir ei osod ymlaen llaw i ddychwelyd i unrhyw ongl o'i gymharu â'r llorweddol. Buont yn gweithio gydag Academi Ffotoneg Cymru ym Mangor, gan ennill gwobr Airbus am y *Defnydd Gorau o Beirianneg a Thechnoleg*. Hefyd, dewiswyd y tîm gan EESW ar gyfer Ffair Genedlaethol Big Bang 2018.

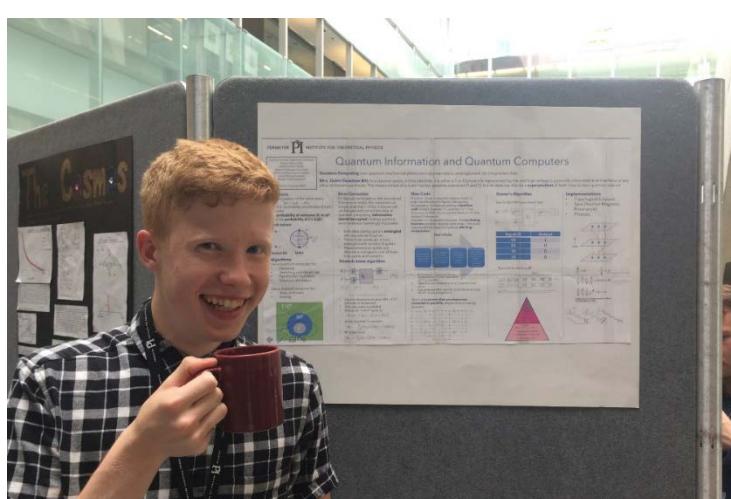
Disgrifiodd Kieran sut roedd gweithio yn y labordy yn wych, yn heriol ac wedi cadarnhau ei fwriad i astudio ffiseg. Pan ofynnwyd iddo ddisgrifio'r broses, chwarddodd Kieran ac esboniodd "Y tu hwnt i'r wybodaeth ffotoneg (does dim ffordd well o ddysgu am rywbeith na threulio 3 diwrnod yn ceisio ei drwsio!), roedd gwaith y labordy yn gymorth i mi ddatblygu'r sgiliau sydd eu hangen ar gyfer gwaith ymchwil wyddonol trefnus, arweinyddiaeth a rheoli terfynau amser. Yn olaf, roedd yn gyfle i mi weithio gyda phobl wych a dod i'w hadnabod."

Pan ofynnwyd iddo sut deimlad oedd cwblhau prosiect EESW dywedodd "Ar ôl wythnosau lawer o waith, dwi'n cofio teimlo'n hynod falch ddiwedd un prynhawn mewn labordy tawel pan ychwanegais wifren derfynol at gylched cymharydd foltedd, gan achosi i'r LEDs oleuo ac i'r modur symud. Bydd y balchder a deimlais, yn dilyn wythnosau o ddatrys cant a mil o broblemau amrywiol, yn aros gyda mi am byth."

Dywedodd fod yr amgylchedd yn wahanol iawn i amgylchedd ystafell ddosbarth Safon Uwch, a bod y prosiect EESW yn bwnc trafod unigryw yn ystod cyfweliadau prifysgol ac internaeth. Roedd hyn wedi'i helpu i sicrhau lle yn

astudio Gwyddorau Naturiol ym Mhrifysgol Caergrawnt, gan arbenigo mewn Ffiseg.

Yn y dyfodol mae'n gobeithio dilyn gyrrfa mewn ffiseg arbrofol, gan ganolbwytio ar gymhwysyo mecaneg cwantwm a chryptograffeg.



Kieran Dalton yn arddangos ei waith