

NEWSLETTER

APRIL 2024

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CERTIFIED PASSIVHAUS COURSE NEWS



This year, CWIC have delivered two fully-funded Passivhaus courses for the Carmarthenshire construction industry.

These included the Certified Passivhaus Designer course and a Tradespersons course in Carmarthenshire.

Forty participants have been supported to learn about this internationally recognised standard to design super energy efficient buildings thanks to funding from the UK Government Levelling Up Fund and Carmarthenshire County Council.

Both courses have been delivered in partnership with Coaction Training CIC, practitioners and specialists in Passivhaus training.

Both courses offer construction and design professionals in Carmarthenshire the opportunity to upskill in low-energy building and discover a proven fabric-first approach.

Carmarthenshire County Council are keen to incorporate the Passivhaus standard, where appropriate, in new building construction projects.

Watch this space or our social media for details.

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SUSTAINABLE CONSTRUCTION CAREERS FAIR



To celebrate Women in Construction Week 2024 CWIC supported the inaugural UWTSD Sustainable Construction Careers Fair. UWTSD students and graduates, visiting students from Neath Port Talbot College and Gower College Swansea.

With input from our colleagues, CWIC led a demonstration about straw bale construction and offered an opportunity to learn about sustainability in construction using virtual reality.

TEAM PROFILE: IAN BROWN



Senior Lecturer Ian Brown is a sustainable building expert and project manager with over 25 years' experience in the construction industry. He has an eye on the sustainable building materials of the future, as his interests lie in straw bale construction, building from waste material and inspiration from the shapes and forms of nature.

As a director of SBUK (Straw Bale Building UK Association), Ian will be joining the CWIC team on a part-time basis as a technical demonstrator to teach students about the new Building Performance Test pods in CWIC's workshop. These pods offer an unparalleled opportunity for students to learn about Building Performance Evaluation (BPE) techniques such as air tightness, U-Value measurement, thermal performance and heat loss. Ian will be developing specific content for a new Passivhaus Tradeperson course.

In addition, Ian contributes to CWIC's Construct Net Zero Cymru project by creating and developing practical hands-on training.

Ian's favourite building material is straw bales, and says: "bales have some amazing properties and are undoubtedly environmentally friendly, but I mainly build with them because they are great fun to build with, just like big furry Lego bricks!"

FUTURE PROOFING CONSTRUCTION SKILLS IN WALES

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PROJECT UPDATES



OLD BUILDING MATTERS IN THE DIGITAL AGE

Technical demonstrators Matt Drummond (l.) and Brandon Roberts (r.) are currently working on the Lampeter project: creating a digital model of UWTSD's Old Building on the Lampeter campus.

Data for the measured survey is gathered using a laser scanner alongside a drone. After 582 individual scans over nine days, the data is turned into both a Point Cloud and Revit model which can be transposed into image form (see above).

It is proposed that data collected can be turned into a digital tool to aid with proactive maintenance of a historic building, and, in time, will replace a paper-based approach.

Whilst the use of detailed measured surveys is already present in industry, it is not commonplace in education to such a large scale or on a high density.



At UWTSD, the knowledge will be used as part of a case study for students to learn about how to manage the upkeep of a historic building.

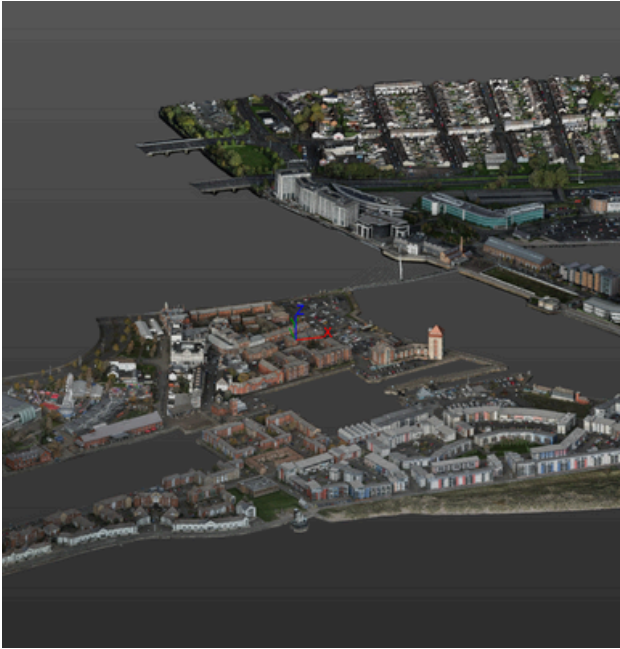
The Lampeter project is a great example of how knowledge and technology are brought together for the benefit of future generations of learners.

IT'S AN EXCITING YEAR FOR CWIC

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PROJECT UPDATES



DIGITAL TWINS FLYING HIGH

Working in partnership with Welsh Government, Matt Drummond led a collaborative team from CWIC and UWTSO to produce a surveyed cityscape in 3D high resolution space. This initiative is part of an integrated digital twin and data visualisation project to support cities, nationally and internationally, on their net zero carbon journey.

Using CWIC's state-of-the-art equipment, this project captured unique data to assess the challenges and opportunities of decarbonisation in a city context. The innovative work was also showcased at the International COP28, held in December 2023 in the UAE.

BUILDING PERFORMANCE TEST PODS

The CWIC state-of-the-art test pods are now installed in UWTSO's construction workshop ready for hands-on learning with our students. Being built to reflect Passivhaus principles and the Welsh Building Regulations, both pods will offer an unparalleled opportunity for students to learn about Building Performance Evaluation (BPE) techniques.

We cannot wait to see the positive impact these test pods will have on our students' learning journey.



AND FINALLY....

First Minister of Wales, Vaughan Gething MS experienced the VR side of construction with CWIC at CITB's National Apprenticeship Week celebration back in February 2024. (At the time of the event, Gething was Welsh Government Minister for the Economy of Wales.)

THANK YOU FOR YOUR CONTINUED SUPPORT
WE LOOK FORWARD TO WORKING WITH YOU IN THE FUTURE