So here we we do research and we do training and we do skills development in developing Composites, Advanced Composites for demanding applications is our primary area so looking at low temperature testing but also more advanced curing processes. So the composite Centre we do several things one is that this is set up as a research lab to research make a Composites more quickly, then it's also set up for teaching, so we have groups of undergraduate and postgraduate students then to learn about Composites and to test them, and then it's available for commercial work so we can analyze Composites for clients or we can work with them in whatever they need to do in order to support their business.

We've done lots of research work with aeronautical companies, we've done work for, military supporting companies I shall say that. obviously we've done a lot of work with industry on processing of resins and materials and samples because obviously we're trying to advance rapid processing, so we can reduce the amount of time it takes to process a composite, and generally if people need help with something we can find a way to help you.

with any material there's differences in mechanical properties as soon as you apply any temperature and Composites are no different and in some ways it's exacerbating with Composites because it's a polymer based what we work on mainly here is polymer based, and polymers are very susceptible to temperature change. so if you're designing something that will be flying at high altitude you need to be mindful of the fact that the properties are different when they're on land as they are when they're flying it could also be things that are sort of operating in humid environments as well, so contents can be susceptible to humidity as well, so we can simulate humidity and we can simulate the temperature extremes that they could face in the in real life. From that we can get mechanical properties and put them into sort of analysis packages to work out whether they're going to work exactly how we want them to

We are here, we love to help people, you know, businesses are out there they don't know we're here we've got a lot of equipment and a lot of specialist knowledge, either directly here or why are other people at the University, and we can really help improve your product or solve your problem for you.

Felly yma rydyn ni'n gwneud ymchwil ac rydyn ni'n gwneud hyfforddiant ac rydyn ni'n datblygu sgiliau wrth ddatblygu Cyfansoddion, Uwch Gyfansoddion, ar gyfer ceisiadau cymhleth yw ein prif faes felly edrych ar brofion tymheredd isel ond hefyd yn fwy datblygedig o brosesu cyweirio. Felly yn y Ganolfan gyfansawdd rydym yn gwneud sawl peth, un yw bod hyn wedi'i sefydlu fel labordy ymchwil i ymchwilio i wneud Cyfansoddion yn gyflymach, yna mae hefyd wedi'i sefydlu ar gyfer addysgu, felly mae gennym grwpiau o fyfyrwyr israddedig ac ôl-raddedig yma i ddysgu am Gyfansoddion ac i'w profi, ac yna mae ar gael ar gyfer gwaith masnachol fel y gallwn ddadansoddi Cyfansoddion ar gyfer cleientiaid neu gallwn weithio gyda nhw yn beth bynnag sydd ei angen arnynt i'w wneud er mwyn cefnogi eu busnes.

Rydym wedi gwneud llawer o waith ymchwil gyda chwmnïau awyrennol, rydym wedi gwneud gwaith ar gyfer cwmnïau milwrol. Yn amlwg rydyn ni wedi gwneud llawer o waith gyda diwydiant ar brosesu resins a deunyddiau a samplau oherwydd yn amlwg rydyn ni'n ceisio datblygu prosesu cyflym, fel y gallwn leihau faint o amser mae'n ei gymryd i brosesu cyfansoddion, ac yn gyffredinol, os oes angen help ar bobl gyda rhywbeth, y gallwn ddod o hyd i ffordd i'ch helpu.

Gydag unrhyw ddeunydd, mae gwahaniaethau mewn priodweddau mecanyddol cyn gynted ag y byddwch yn cymhwyso unrhyw dymheredd, ac nid yw Cyfansoddion yn wahanol, ac mewn rhai ffyrdd mae'n gwaethygu gyda Chyfansoddion oherwydd ei fod yn bolymer sy'n seiliedig ar yr hyn rydyn ni'n gweithio arno yn bennaf yma yw polymer yn seiliedig, ac mae polymerau'n agored iawn i newid tymheredd. Felly os ydych chi'n dylunio rhywbeth a fydd yn hedfan ar uchder uchel, mae angen i chi fod yn ymwybodol o'r ffaith bod y priodweddau'n wahanol pan fyddant ar dir fel y maent pan fyddant yn hedfan, gallai hefyd fod yn bethau sy'n fath o weithredu mewn amgylcheddau llaith hefyd, felly gall cynnwys fod yn agored i leithder hefyd. Felly gallwn efelychu lleithder a gallwn efelychu'r eithafion tymheredd y gallent eu hwynebu yn y byd go iawn. O hynny, gallwn gael eiddo mecanyddol a'u rhoi mewn math o becynnau dadansoddi i weithio allan a ydyn nhw'n mynd i weithio'n union sut rydyn ni eisiau iddyn nhw weithio.

Rydyn ni yma, rydyn ni'n caru helpu pobl, mae yna lawer o fusnesau allan yna, dydyn nhw ddim yn gwybod ein bod ni yma, mae gennym ni lawer o offer a llawer o wybodaeth arbenigol, naill ai'n uniongyrchol yma neu gan bobl eraill yn y Brifysgol, a gallwn ni wir helpu i wella eich cynnyrch neu ddatrys eich problem i chi.