Denbigh and District Probus – Wireless in Wales

Members of the Denbigh and District Probus Club enjoyed their April meeting with a wonderful meal at Tweedmill, St Asaph, followed by a talk titled Wireless in Wales from David Crawford.

David is a retired broadcast engineer - radio and television transmitters, who started work with the BBC Transmitter Department in April 1973. After working at several transmitter stations, he finally came to Moel y Parc, (a 1,306 ft hill located in North East Wales near Caerwys and Denbigh, part of the Clwydian Range and Dee Valley National Landscape) where he was manager from 2001 to 2011, which included a spell at Winter Hill near Bolton in Lancashire, from 2002 - 2008. He was responsible for all the relay stations in North Wales, North West of England and the Isle of Man.

From time to time, he and his team had maintenance contracts with the Emergency services, Police, Fire Service, etc. The BBC privatised their transmitters in 1997. David stayed with the various privatised companies until 2011, when, after his company was merged with their friendly rival, Arqiva in 2008, he took redundancy with early retirement in April 2011.

In 2011, he was invited to join the team at Wireless in Wales, Denbigh, becoming Museum Curator and Trustee in 2012.

His interest in Radio and Television started when he was a boy, as his late father also worked for the BBC in transmitters. His father's interest in radio began in 1925, meaning that between them both they have been interested in radio for 100 years!

David outlined for Probus group members the history of the Wireless in Wales Radio Museum which is located in Denbigh, sharing the Welsh Language Centre premises and facilities, Canolfan Iaith Clwyd, Pwll y Grawys, Denbigh.

The founder of the museum was David Evan Jones (1941-2008) from Llanrwst, who was a Welsh learner and broadcast engineer with The International Broadcasting Authority (IBA).

The Museum is based around the collection of the late David Evan Jones and was opened just a few weeks after his death in 2008. He was a pacifist so there are very few exhibits linked to WW1 and WW2 apart from a "How did WW2 start - broadcast log map of Europe."

Wireless in Wales, a charitable trust, is a small radio museum with a difference. With its emphasis on the history of broadcasting in Wales, the influence of broadcasting on Welsh national identity and the contribution of the Welsh to the development of wireless technology, it is unique. There is an interesting collection of old radio equipment and books, as well as educational and informative displays.

The Museum was officially accredited by the Culture Division of the Welsh Government in April 2025.

David showed members a variety of photos of the exhibits at the museum including the valve collection and associated advertising material, transistors and radios with some exhibits over 100 years old.

A valve/vacuum tube is a device which is used in audio devices and in a range of electronic equipment. They come in varying size, from 5cm all the way to 12cm+ and are commonly constructed from glass, plastic and metal materials. They often resemble an incandescent lamp with the metal electrodes inside which is a vacuum. The flow of electrons, which is emitted from a hot cathode, are controlled by an electrode known as a “grid” and are then collected by the anode. This allows the valve to act as an amplifier and various other applications. The “Colossus” computer in WW2 was operated entirely by valves!

The valves were large, fragile and inefficient due to the energy required to heat the cathode. They also have a limited life. A better solution appeared in 1947 when scientists in the Bell Laboratory in New Jersey managed to make the first transistor which has revolutionised electronics. The transistor consists of a semiconductor element, germanium or more often silicon. A tiny amount of a different element, possibly Arsenic is added to improve its conductivity of electrons. This is controlled by an area of the transistor called the “base”. The transistor can then be used as an amplifier or switch for example. They are very small!

“Colossus” used around 2,500 valves……your SMART phone uses between 10 and 20 billion transistors!

A number of photographs of radios were also shown including a Foulkes radio that was made in Rhyl by Eric Foulkes 1903-1976. He was the proprietor of Foulkes Radio, 67, High St, Rhyl (now Boots opticians) and was a Radio, audio and television pioneer and broadcast a pirate station “Radio Foulkes” around 1929.

Members thoroughly enjoyed the talk and many are planning to take a trip to the museum to have a closer look at the collection.

The Museum is open every Saturday 11.00am – 4.00pm.
If anyone wishes to visit at another time which is more convenient, they should contact gwybod@gwefrhebwifrau.cymru to arrange an appointment. https://www.wirelessinwales.org.uk/en/

The next Denbigh and District Probus Club meeting will be on Monday 11thMay 2026 at Tweedmill in St Asaph, when the speaker will be Professor John Solbe of St Asaph.

Denbigh and District Probus Club is a group of business or professional women and men either approaching or enjoying retirement or semi-retirement.

New members are always warmly welcomed to the Denbigh and District Probus Club meetings.

For further information, have a look at the club website denbighprobus.com or contact stevetootell@gmail.com