



## The Worshipful Company of Engineers

(Incorporated by Royal Charter 2004)

### The Junior Warden 2024 - 2025



**Eur Ing Brian Back**

BEng HND CEng FIET

Brian started his career as an apprentice power engineer at Hawker Siddeley involved in the design of HV transformers and switchgear. After winning the Institute Prize (IEE) in 1987 and being introduced to the Deputy Prime Minister of the time, who said to him those immortal words “I’ll expect you to be on your bike”. He was right, as Brian had already been talent spotted to become one of the first recruits of the newly formed Teaching Company Scheme, setup to give support to floundering technology companies. This was to open his eyes to the very different and challenging world of SMEs and go on to shape his entire future career, switching from KV to  $\mu\text{V}$  as he became a leading pioneer in the world of radio telemetry.

After being handed the keys of the door on day one, Brian found he was in a sink or swim situation, but after a few months surfaced taking over both the R&D and production, becoming instrumental in enabling the business to be sold as a going concern.

Infected with the SME bug, it was not long before Brian was off running his first venture with his wife Belinda, who ran the finance and operations side of the business. Within a decade they had chalked up some major prestigious wins within the David and Goliath world of engineering. Pioneering the predecessor to the Internet of Things, M2M (Machine to Machine) winning contracts with British Telecom, Network Rail (Rail Temperature Safety System) and Smart Metering, automatic meter reading (AMR) projects for Paris, along with several other Cities across France, plus even for the holy city of Mecca in Saudi, just to name a few. This culminated in the sale of the business to a FTSE 250 company in 2005.

After a period of legal constraint, which Brian refers to as his “wilderness years”, they started a new venture, almost as a hobby, to apply their knowledge to create technology for good. First, striking up a deal with Ofcom to setup a national private data collection channel, then going on to develop a real-time monitoring

and retrofit control system to tackle issues such as rail safety, pollution, flooding and most topically issues such as the spills of sewage and plastics in the oceans. Then as an early pioneer of Smart Sensors and Networks which is the subject of this lecture. Today although still a relatively small business, they have been granted several patents and have a trophy cabinet that would be the envy of most corporates, recently coming runners up in the IET innovation awards in three categories against the Goliaths of the Engineering world.