



**Dr David A. Wilson**

*Colleagues will be sorry to learn of the death, on 21 April 2021, of Dr David A. Wilson, former Reader in Control at the School of Electronic and Electrical Engineering. The following tribute has been contributed by his friend and colleague, Des McLernon.*

### **Early Life**

David was born in Liverpool on 28 January 1946. His parents moved down to London when he was quite young – first to the Croydon area and then to Pinner – and after a primary education he attended Harrow County Grammar School, not far from Pinner. Another Pinner contemporary (and almost the same age) who attended the nearby Pinner County Grammar School was Elton John.

In 1964 David went on to study electrical engineering at Northampton College of Advanced Technology, which later became the City University in 1966. In his second year, while attending a dance at LSE, he met his future wife Janet who was then at King's College studying languages. After graduating in 1967 he joined Clare College, Cambridge University, to do a PhD in the mathematics of control engineering. David and Janet subsequently married in May 1970 and they then both moved to Leeds in October 1970 when David joined the electrical engineering department at the University of Leeds. During his academic career at the University he was promoted from Lecturer to Senior Lecturer and then to Reader. He eventually retired in 2006, aged sixty.

### **University of Leeds – Teaching and Research**

While at Leeds, David lectured on, and supervised student projects in, Control Engineering. He also conducted weekly tutorials and held various administrative posts including MSc Course Director and Deputy Head of School. He was very well liked and respected by all students and staff, not least because of his meticulous attention to detail and his rigorous approach to control theory and mathematics. But he was also thoughtful, considerate and very sympathetic to any student who might struggle, for whatever reason, and so needed some extra help. His office door was both literally and metaphorically always open to any and every student.

David's University research was broadly, but not exclusively, within the domain of optimal control theory, which is in effect a subset of mathematical optimisation. It deals with the problem of finding a control for a dynamical system so that a particular objective function is also optimized. In practice optimal control can find many applications in different disciplines – from operations research to automotive engineering. He often joked with colleagues at Leeds that he was just a "*failed mathematician*". Typical self-deprecation and modesty from one of the School's best mathematicians!

David was a very active and well respected researcher within his academic field, collaborating and publishing with many other colleagues in various departments at Leeds University including George Halikias and Des McLernon (Electronic and Electrical Engineering), David Crolla (Mechanical Engineering) and in particular J.E. Rubio (Applied Mathematics), with whom he has significant co-authored research papers. But for many scientists/engineers in academia, unless you are familiar with a very niche and specialised research area, the publication titles can be somewhat baffling and definitely not a conversation starter at a dinner party:

'A numerical solution to the matrix  $\mathcal{H}$ -2/ $\mathcal{H}$ -infinity optimal control problem' – Halikias, Jaimoukha and Wilson.

'Hilbert-Schmidt systems with finite-dimensional state spaces' – Rubio and Wilson.

'On the periodic realisation of transfer matrices' – McLernon and Wilson.

David was also associated for many years with the respected International Journal of Control (IJC) – first as an associate editor and later as a consulting editor. The IJC (published by Taylor and Francis) celebrated its 50<sup>th</sup> anniversary in 2015 and David maintained his editorial involvement long after his retirement in 2006. While publishing regular papers the IJC also published special issues in areas like Optimization and Control of Electrical Systems and Control Theory Applied in Renewable Energy, as well as some specially-invited position papers from international leading researchers. One close colleague on that journal, upon hearing of David's death commented: "*He was a very fine academic and a very nice person all round. Indeed, if all academics were like David academia would be a much better place*". Surely everyone who knew him would agree with that sentiment.

## Music

It would be a great disservice to David to only talk about his academic work in this obituary. And it would be impossible to overstate the importance that music played in his life – in particular his love of jazz guitar. He was himself an accomplished jazz guitarist but very modest and reluctant to sing his own praises, as with all aspects of his life. To understand his passion for both jazz and the guitar (both electric and acoustic) we need to go back to his early days at Harrow County Grammar School.

It all started with Paul Hereford Oliver MBE (an English architectural historian and writer on the blues and other forms of African-American music) who was Head of Art at Harrow from 1949 to 1960. He introduced an African-American music society at the School after the headmaster bizarrely refused to allow a jazz club to be formed. Possibly thought that jazz was just too decadent for young boys?

It was through Paul Oliver and his African-American music society that David first began his lifelong obsession with jazz (and blues). So at a young age he would then cycle from Pinner (North London) to all the music and record shops in and around Soho – and in particular to the Ivor Mairants Musicentre, Britain's first specialist guitar store, situated in the heart of London's West End.

David's love of jazz was broad and he was very knowledgeable. In particular he liked the music of jazz guitarists like Pat Metheny, Wes Montgomery, Johnny Smith & Martin Taylor, but also appreciated Jim Hall, Larry Coryell, Louis Stewart and Django Reinhardt. He went with his wife Janet to numerous jazz gigs in many venues, including the Dean Clough in Halifax or the Wakefield Jazz Centre, where he would sometimes meet with other university colleagues. But just as in chaos theory ("*the butterfly flapping its wings in Beijing can cause a hurricane in Nebraska*") David might so easily have never pursued an academic career. One of his contemporaries at Harrow County Grammar School founded a school band – and Dave played guitar with him, but never formally joined the band – perhaps because the music was not jazz? However, that contemporary student was none other than Roger Glover. He later left the school band and became the bass player in the newly formed 1960s heavy metal group Deep Purple, that then went on to have some 'modest' international success.

## Food, Wine and Walking

David had many other interests, including food, wine and walking – not necessarily in that order, but often combined. In particular, he had a great affection for Italian food in general and red wines in particular – from obscure little known vineyards to Italian classics like Brunello di Montalcino, Barolo, Amarone or Chianti. He also collected and laid down wines for enjoying in later years. He

often discussed with colleagues various wines that he had recently drunk leaving them very envious of both his well-stocked cellar and his broad knowledge as a passionate oenophile. Walking was another of David's favourite pastimes – in particular, exploring the beautiful Yorkshire Dales which were very close to where he lived. He was extremely fit and often left friends and younger colleagues with whom he walked struggling to keep up!

So in summary, we are all saddened by the loss of a very good friend and colleague. He was, as many said, a "*true gentleman and a well-read scholar*" who will be greatly missed. But we can still remember his honesty and dry wit with this anecdote.

David walked into the departmental coffee room after tuition fees were first introduced in 1998 under the then Labour government of Tony Blair, and asked: "*Have you heard about the new Leeds University entrance exam?*". Upon receiving a negative reply from other colleagues, he dismissively removed a cheque book from his pocket and said, "*You now simply have to fill in one of these!*"