

Professor Gerry A. V. Leaf

It is difficult to write about a friend, a teacher, a gentleman and about a legend in his own lifetime.

Gerry had an outstanding academic career in both research and teaching. It started in 1950, after he had graduated in Mathematics from London University, when he was appointed to the Statistics Department at the Hosiery and Allied Trades Research Association (HATRA). HATRA's remit was to provide a research and consultancy service to the Knitting Industry. He ultimately rose to become the Head of the Department before acquiring an MS, again from London University. In 1965, he was appointed as a Lecturer in Textile Engineering at the University of Leeds. He was promoted to Senior Lecturer in 1970 and Reader in Textile Engineering in 1986, a post which he held until his retirement in 1993. During this time he taught countless undergraduate and postgraduate students and supervised numerous PhD students, many of whom have gone on to hold senior academic and industrial posts. Gerry's undoubted strength was to be able to analyse what might appear to be a seemingly complex, almost intractable, mathematical problem and produce a simple, elegant solution or mathematical model, which he could describe in the simplest terms. Students and colleagues alike were simply in awe of his ability to produce new mathematics without ever making an error – no dropped “squared” or subscripts, no plusses where a minus was needed! He was an excellent teacher and communicator. As anyone who has ever tried to teach statistics will tell you, it is not easy to make it interesting and understandable, yet Gerry mastered both. Many a PhD, MPhil or MSc student, not only those that he supervised, but others he helped, owe the award of their degrees to the statistical analysis and mathematical models that he proposed to explain their research results. In addition to two publications on Practical Statistics for the Textile Industry, published by the Textile Institute, he published over 60 refereed papers (https://scholar.google.co.uk/scholar?hl=en&as_sdt=0%2C5&q=G.A.V.Leaf&btnG=) and chapters in text books. Most of these have been in the field of theoretical mechanics and analysis of textile structures (fibres, yarns, knitted, woven and nonwoven fabrics). However others have covered areas as diverse as needle forces on knitting cams, fibre trajectories during the air-laying nonwoven process, cone winding, prediction of fabric loss during spreading in clothing manufacture and the computer simulation of production systems for woven fabric manufacture. This is not to forget the countless research papers that he contributed to without seeking authorship or acknowledgement. He was that kind of man. He was once asked to look at a very weak paper from Korea that had been recommended for rejection. Gerry almost rewrote the paper and made it acceptable – without even knowing the authors! His outstanding research contribution was recognised by the award of Doctor of Science (D.Sc.) by the University of Leeds in 1984 and by the Textile Institute with the award of the Warner medal in 1985. He was a Fellow of both the Textile Institute and the Royal Statistical Society. He did peer review for many journals and was very supportive of the *IJCST* from its start until now.

He spent several short periods abroad as either a visiting scholar or Professor at the Indian Institute of Technology, North Carolina State University, The University of New South Wales and Hong Kong Polytechnic University where he enhanced his international reputation. Although Gerry formally retired in 1993, he continued to be research active and collaborated with academics throughout the world by supporting their research, through statistical analysis and the development of theoretical models and writing and reviewing research publications. Gerry was always interested about the current state of university life and more



importantly about his favourite subject; fabric mechanics and how it was taught. His thinking was so progressive that he saw the connection with mechanics and design and he was hoping for its integration; an area that most universities can still not see. His wonderful mind coupled with his many years of experience and expertise was active until he passed away. Right up to within two days before he left us, he was discussing a fabric testing scheme to prove that the harmonic treatment of shear is more precise than the geometric one being currently used. His legacy will live on for many years. His first research paper was in the *Journal of the Textile Institute (JTI)* and his last two papers, on the modelling of seam pucker, have been accepted by the *JTI* and are to be published later this year.

In 2002, he was awarded the Honorary Fellowship of the Textile Institute for his creativity and advancement of knowledge.

Gerry was a staunch supporter of the Textile Institute. During the period 1987 until 2015 he served on the publications, the medals and awards and the professional qualifications committees for varying intervals. From 1987 to 1993, he was a Member of Council. He has also been a Member of the *JTI* Editorial Board. All those who served on the committees with him will vouch for the contribution he made and for the wise counselling, advice and support he gave to the Institute and its members. His services to the Institute and the Textile Industry were recognised last year by the award of the Institute medal, the Institute's highest accolade.

Gerry was the perfect English gentleman; as so many people who knew him have commented to me – polite, unassuming, kind, thoughtful and considerate. It was such a privilege to know him and to spend time with him. He was always good company, his conversations were always engaging, interesting and amusing. Wherever he went professionally he made friends; in many places, he was loved as a dear friend and mentor, as well as being universally respected and admired. His warmth and sincerity were unmatched. Professionally and personally, he was a towering presence, and he will be terribly missed by all his friends and colleagues across the world. Such is our sadness at his passing, that it is like losing a close family relative. He was unstinting in the help and time he gave freely to anyone who approached him; there are many people around the world, who owe Gerry more than they could ever repay.

Gerry's legacy will live on in our memories. He will be remembered as a shining light to all of us that knew him; a wonderful man and a kind, intellectual giant. Professor Harlock said "If anyone can create a mathematical model of heaven – Gerry can!" – and that is true.

George K. Stylios