

David Clarke Fellowship

The David Clarke Fellowship is co-funded by the Energy Technologies Institute (ETI) and Engineering and Physical Sciences Research Council (EPSRC). At least one fellowship will be awarded per year.

Applicants applying to a post-doctoral stage Energy fellowship will be eligible to receive the David Clarke fellowship if the person specification, assessment criteria and the criteria below are met.

Applicants will undergo the same peer review process as standard post-doctoral fellowships. However, applicants will be notified if they are being considered for the David Clarke Fellowship before reaching the interview panel.

Further information about fellowship assessment criteria, peer review and resources can be found in the Fellowship Application Guide or on the following website: <https://www.epsrc.ac.uk/skills/fellows/>

Criteria:

- The research focus of the fellowships must be interdisciplinary across the Energy theme.
- The National Importance of the research within the fellowship must be clear.
- The Impact the fellowship will have within the Energy Sector must be evidenced and must focus on a low carbon initiative.
- Research should evidence how a low carbon energy system can be delivered in the UK and should be set within a whole systems context.
- Applicants should engage with industry, end users and/or Government to align research with the needs of these and other stakeholders, who would ideally become active participants in the research.
- The research questions to be addressed should be interdisciplinary, ensuring that the work doesn't just focus on technical solutions but sets these in a broader system, market and societal context.
- Universities need to offer tangible support to applicants of this scheme.

Benefits:

- These prestigious fellowships are designed to encourage awardees to create active stakeholder engagement in their research, reflecting the passions of Dr David Clarke for encouraging others to work together towards the delivery of a low carbon energy system for the future.
- Fellows will be identified as a 'David Clarke Fellow'. These fellows will benefit from monitoring by an advisory group and will receive a mentor.
 - o Fellows will receive a mentor, whom they will meet throughout the duration of their fellowship; especially in their first and final year.
 - o Fellows will be monitored and must engage with the Advisory group to feedback developments on their research and their overall progress.

Tribute from Dr Ian Nussey

Dr David Clarke, BSc, PhD, FEng, CEng, FEI, FIMMM
3rd December 1961 - 4th February 2017

This is compiled from tributes written or spoken at David's funeral, several like him Rolls-Royce stalwarts and Royal Academy of Engineering Fellows, capturing the spirit of a highly regarded and much loved man, lost to the world far too early.

David Clarke's mother having died when he was six, his father became his best role model, including teaching him DIY. Luckily, he also had superb female role models, spending his summer hols with surrogate parents Uncle Derek and Auntie Jean's four daughters, making up madcap games and learning that girls really can do as much as boys (or should that be the other way round?).

A very capable engineer who could turn his hand to anything, David from very early days wanted to join the same company as his father and grandfather. His widow treasures the essay he wrote, at the age of five, declaring this. Although temporarily moving away from this ambition during Surrey undergraduate days, BP and UK Atomic Energy Authority placements, and a materials science PhD, he joined Rolls-Royce in 1987.

David was offered the dream appointment of leading the activity on high temperature ceramic matrix composite materials for the EJ 200 engine. Although the components produced proved too expensive and the activity was closed down in 1992, it contributed to the recent re-launch, based on a new generation of materials. He also developed stronger, lighter and affordable polymer composite materials which have been incorporated in the Advanced Titanium Composite fan which first flew in 2015 and are destined for the next generation of Rolls-Royce Large Civil engines.

In 1997 he became Head of the Corporate Strategic Research Centre. Amongst much else, he led the fuel cell programme until it was spun out as a separate business. Two years later he was appointed Head of Technology Strategy and Research. Sharing responsibility for the company's Technology Strategy with Philip Ruffles, he identified and filled critical strategic research gaps including composite and electrical technology deployment, and produced a business plan for the manufacture and test of a full set of Advanced Titanium composite fan blades. He concurrently expanded the Rolls-Royce University Technology Network (the UTCs), from 19 UK universities to 27 worldwide.

Rolls-Royce colleagues refer to David as an excellent, well-liked team player, visionary leader and people manager, revelling in fresh challenges, achieving change and winning support. Firm when needed, using influencing skills to good advantage, and delegating effectively. One said he was the most open and welcoming guy that he had worked with. "When he said he was going to do something, he did it almost immediately.... ; when he said no, he meant no, and that was the end of it....; when he entered the room, everybody woke up. .. He had a presence. ...People listened to him". And as another put it: "While he had an easy going friendly disposition with a ready, almost cheeky-chappy smile, always tending to see the funny or bright side of things and a great sense of humour, you risked being fooled unless you realised he was very bright, perceptive and sharp about the real issues".

In 2008, three generations of unbroken family Rolls-Royce service spanning almost 100 years ended when David was persuaded to move from his highly successful twenty year career to

set up the UK's £400m Energy Technologies Institute. He did so because he believed this partnership between global energy and engineering companies, academe and the Government really mattered, for Britain and the world. As its CEO he indefatigably shaped and implemented its emissions reduction mission: informing strategic policy formation; guiding industry; developing and demonstrating technologies; and bringing together engineering projects delivering affordable, secure and sustainable innovation. By doing this, he quietly enabled Britain to attain world energy leadership.

His deputy captured what David was to the Institute. "Everyone knew what he was passionate about and what he wanted us to deliver. How he saw the bigger picture and wanted to play a role in making it happen, not for himself but for the wider benefit of others. The strength of his leadership. Managing with his door open, always available to his staff, vitally empowering them and giving them space and time. Enthusiastic and knowledgeable. Clear in direction and blunt (sometimes very blunt) in feedback, but always willing to listen and take advice, and wanting *you* to succeed. Tenacious in getting the ETI to tackle difficult and challenging matters, in many instances succeeding in large part due to his ideas, willingness to roll his sleeves up and to put himself in the firing line and rare ability to tailor knowledge audiences. Collegiate In the truest sense, joining in. At the ETI's summer party, always hosting the staff update, getting around as many staff as he could and fully engaging in the team building exercise. He wanted to win the 2016 treasure hunt and threw his all into it. He danced "Gangnam Style"; he undertook yoga poses; he directed a scene from Titanic – all with a big smile on his face, absolutely as one of the team. As a friend, he always had time to listen, enquiring after family or updates on interests. And recognising the importance of the lives people had outside of work, he always tried to make it back to Derbyshire in the evenings wherever his work commitments had taken him."

Whilst engineering was definitely one true passion, he had love of many other things. Twice blissfully married, both wives considered themselves the luckiest of ladies. With Sarah, he exploited his passion for the outdoors, hiking across Alaska, treating each other's blisters and scaring each other with talk of bears. Following her cruelly early death, David spent much of his spare time in the After Sarah and Before Ali years raising money for Macmillan Cancer. He met Ali during her first week at Manchester, while she was organising the opening of the UTC. They married three years later, and set about painstakingly restored a lovely old Derbyshire farmhouse to be their forever home, sadly not knowing how brief that was to be.

A few months before so unexpectedly passing away, David was asked what motivated him. He replied by saying simply he lived by the rule of "always leave things better than when you found them." Throughout his life - as a leader, engineer, colleague or friend - he did indeed make things better. And everyone who knew him thanks him for that.