University of Birmingham

Dr Aman Dhir MEng, PhD

Teaching fellow in Solid Oxide Fuel Cells
Centre Manager

School of Chemical Engineering (/schools/chemical-engineering/index.aspx)

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Qualifications

- Chemical Engineering MEng (Hons) 1st Class, University of Birmingham - 2004
- PhD Chemical Engineering, University of Birmingham - 2008

Teaching

Undergraduate:

- Sustainable Development
- Product Formulation & Design

Postgraduate:

- Solid Oxide Fuel Cells
- Public Engagement & Awareness in Energy

Postgraduate supervision

Currently co -supervise 12 PhD students and several Masters students

Research

Research Themes

- Solid Oxide Fuel Cells
- SOEC
- SOFC Stacking and Degradation
- Fuels For SOFC
- Systems Integration

Other activities

Aman also has several other responsibilities: -

- Day to day operations of the Fuel Cell lab. This includes tours and dissemination of the technology to visitors from UK and abroad.
- Microcab vehicle training.
- Fuel Cell lab Health, safety and awareness.
- Supervisor of several research projects - BEng & MEng.
- Projects with secondary schools.
- Guest lectures on "SOFC" and "Hydrogen & Fuel cells" for undergraduate, postgraduate and residential courses.
- **Headstart (http://www.eng.bham.ac.uk/study/headstart.shtml)** - Chemical Engineering Labs.
- Chemical Engineering **Taster Course (http://www.eng.bham.ac.uk/chemical/study/taster.shtml)** .
- University Open Days & Admissions tours.
- Mentor to new PhD students.
- Website manager.

Publications

Up to date Google Scholar (http://scholar.google.co.uk/citations?user=5PleowIAAAAJ&hl=en)

A select few:

1. K. Kendall, B.G. Pollet, A. Dhir, I. Staffell, B. Millington, J. Jostins. (2010) "*Hydrogen Fuel Cell Hybrid Vehicles (HFCHV) for Birmingham Campus*".
2. K. Kendall, A. Dhir & C. Yong (2010) "*Strength by Atomic Force Microscopy (AFM): Molecular dynamics of water layer squeezing on magnesium oxide*"
3. K. Kendall, A. Dhir & S. Du (2009) "*A new measure of molecular attractions between nanoparticles near kT adhesion energy*". Nanotechnology **20** **Link (http://iopscience.iop.org/0957-4484/20/27/275701/)**
4. A. Dhir (2008) "*Improved Microtubular Solid Oxide Fuel Cells*" PhD thesis, University of Birmingham
5. A. Dhir and K. Kendall (2008) "*Microtubular SOFC anode optimisation for direct use on methane*" Journal of Power Sources **181**(2): 297-303 **Link (http://www.sciencedirect.com/science/article/pii/S0378775307024330)**
6. A. Dhir and K. Kendall (2007). "*Improving Reliability of Microtubular SOFCs for Direct Use on Methane*." ECS Transactions **7**(1): 823-828. **Link (http://www.ecsdl.org/getabs/servlet/GetabsServlet?prog=normal&id=ECSTF8000007000001000823000001&idtype=cvips&gifs=yes&ref=no)**
7. Yong, C., W. Smith, A. Dhir and K. Kendall (2007). "*Transition from elastic to plastic deformation as asperity contact size is increased*." Tribology Letters **26**(3): 235-238. **Link (http://www.springerlink.com/content/5h811237570u4271/)**