

## Fly away success

The final of the Institute's annual Young Persons' Lecture Competition saw seven contestants vying for the top prize at The Armourers' Hall in London on Wednesday 25 April.

Topics ranged from nanotubes as a strain sensor in glass fibres, the realities of stope design, enhanced recovery of oil through seismic stimulation, to the synthesis of ultrahigh surface area porous nanoparticles by mini-emulsion polymerisation.

The format of the competition, where members under the age of 28 test their presentation skills, was a 15-minute lecture from a contestant followed by questions from each of the three judges. The panel comprised Dr Phil Bischler, Chair of the IOM<sup>3</sup> Local Affairs Board, Vishal Shah from the Younger Members' Committee and Dr Richard Dolby, President of IOM<sup>3</sup>. They had some tough questions to test the participants' knowledge and understanding of their chosen subjects. The finalists were judged on 'well structured presentations with high content levels, use of visual aids, enthusiasm, clarity and confidence in delivery', said Dolby.

Having won their respective regional finals, it is fair to say that all participants were winners, but only one person could come away with the honour of first place. John Forsdike from Rolls-Royce Plc came through a hotly contested final with his presentation titled "Blisks' and their role in Aero-Gas Turbines'. He won £750 for his lecture plus the coveted medal of The Worshipful Company of Armourers and Brasiers.

Illustrating the advantages of weight reduction, space saving and increased aerodynamic efficiency, Forsdike outlined the problems of

making blisks (bladed discs) economically viable through a cost-effective route of salvage and repair, reducing lifecycle costs. 'Last year, I spoke about the Virgin Global Flier, but I didn't have enough content, so this year I made sure I [avoided] that problem,' adds Forsdike.

Representing Ireland was second place winner and recipient of the £400 prize, Martin McMullan from the University of Ulster. McMullan gave a fascinating lecture on producing an electro-chemical implantable sensor for measuring lactate levels in adults.

Oxford University PhD student, Richard Beal, completed the top three by presenting his research on plastic solar cells, and the efficiency and lifespan required for commercial viability. He took home the £200 award. Beal said, 'It has been a good learning experience. As you progress through the heats, you watch other people, picking up tips and learning from their skill.'

This is the tenth year The Armourers' Hall has hosted the event, and the standard of the presentations continues to be 'tremendously high', said Bischler. Forsdike concluded that he intends to stay in the aerospace industry with Rolls-Royce and become an established engineer in the field after gaining his CEng. 'This award certainly doesn't do my career any harm, and hopefully I will graduate and move up in the Institute with the aim of giving something back in the future.' But for now, Forsdike can look forward to competing in the Young Persons' World Lecture Final in Singapore in August.

*Martin Parley*