

# AUT INSTITUTE OF BIOMEDICAL TECHNOLOGIES

OCTOBER/NOVEMBER 2016

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## OUTSTANDING DOCTORAL AWARD FOR 2016

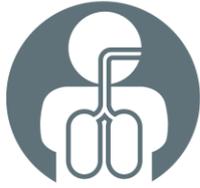


Former IBTec PhD student, Sherif Ashaat, won the Design & Creative Technologies Outstanding Doctoral Award for 2016. Congratulations Sherif. The presentation was made on 19 October 2016.

## IEEE COMPETITION WINNERS

The IEEE student committee at AUT held a one page research paper writing competition in late September 2016. The competition was judged by Professor Tek Lie and Associate Professor Hamid Gholamhosseini. One of the winners of the competition was Anubha Kalra from IBTec. Her research paper presents a novel technique for reducing motion artefact from Electrocardiogram (ECG) measurements by quantifying the mechanical strain field arising from skin stretch. Her primary and secondary supervisors Dr Andrew Lowe and Professor Ahmed Al-Jumaily are the co-authors of this paper.





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## NZ CHAPTER OF THE IESANZ IN AUCKLAND 22 NOVEMBER

### **“Colour rendering and colour fidelity – where to from here ?”**

was the title of a paper presented by Dr Andrew Chalmers (Research Fellow at IBTec) to a meeting of the NZ Chapter of the IESANZ (Illuminating Engineering Society of Australia and New Zealand) in Auckland on 22 November.



The question posed in the title has great relevance to lighting designers and engineers, particularly since the advent of LED lighting, since LED sources come in a wide variety of colours and spectral compositions.

The matter of colour fidelity is an issue in the case of white-light sources because of a property of human vision referred to as metamerism. This means that two or more light sources can look the same even though their spectra may be quite different. In such cases, the differences in spectral content can lead to unexpected variations in the way coloured objects are perceived. Hence the need for methods of defining and predicting the colour fidelity properties of sources.

The talk gave an overview of several existing and proposed new systems for specifying colour fidelity (previously termed colour rendering) and concluded with a description of a new set of fidelity indices being developed here in Auckland, and the influence that this could have on work towards a new international definition for a general colour fidelity index for electric lamps.