

PRESIDENT'S RESEARCH AWARDS 2010

**Professor Paul Whelan, School of Electronic Engineering
and
Director of the Centre for Image Processing and Analysis
in The Rince Institute**

The 2010 President's Research Award for Science and Engineering is made to Prof. Paul Whelan of the *School of Electronic Engineering* and the *Centre for Image Processing and Analysis* within *The Rince Institute*. Paul graduated with a First Class Honours degree in Electronic Engineering from the National Institute for Higher Education Dublin (now DCU) in 1985 – a member of the second graduating cohort from the fledging Institute. He was awarded an MEng degree from the University of Limerick and later a PhD from the University of Wales at Cardiff. From 1985 to 1990 he worked in industry, most notably in Westinghouse, where he was involved in R&D on industrial vision systems. He was appointed to the School of Electronic Engineering, Dublin City University in 1990 and is currently Professor of Computer Vision (holding a Personal Chair).

Paul is an exceptional engineer who has established himself as an internationally leading figure in image processing and analysis – particularly so over the last 10-12 years in the field of biomedical image analysis and diagnostics. His ability has been recognised by invitations to present his work at agenda-shaping conferences and to serve on key opinion-forming committees. He continues to impress his research colleagues by his wide knowledge of diverse biological problems and how his new approaches can help eliminate long standing barriers to progress.

But, while Paul's research is highly regarded both for its scholarship and technical merit, his contributions rarely end just with new knowledge. He has applied his insights to areas such as computer-aided diagnosis in cardiovascular biology that will directly impact patient care – rapidly driving innovation in research across the life sciences/engineering interface and in industry. Paul's successes have attracted significant international attention and have resulted in collaborations from the USA to Finland.

Paul has an unrivalled track record of commitment to the development of research more generally at DCU. He was a founder member of The Rince Institute at DCU in 1999, and has been a key contributor to its successful growth and development. He is director of the Centre for Image Processing and Analysis, one of the three major centres within Rince. Most recently, he has contributed greatly to the formulation of a successful PRTL14 proposal that saw the National Biophotonics and Imaging Platform (NBIP) established, with more than €30m funding being invested in photonics research across Ireland. He is also a PI within the NanoBioAnalytical Research Facility that received more than €15m funding in 2010.

As well as publishing over 150 peer-reviewed papers, Paul has co-authored 2 monographs, has co-edited 3 books, has earned over €7 million (as PI) in competitive grant income, has filed 7 patents since 2007, has successfully licensed his biomedical technology for DCU, as well as recently launching a spin-out company focusing (no pun intended!) on the removal of aberrations in digital imaging systems.

Paul is currently a member of the *DCU Governing Authority*, a member of the *Royal Irish Academy Committee For Engineering Sciences*, a Senior Member of the IEEE, a member of the *International Association for Pattern Recognition (IAPR)*, a *Chartered Engineer*, a *Fellow of the IET*, and he was the inaugural President (1998-2007) of the Irish Pattern Recognition and Classification Society.

The statistics of Paul's research output and his contribution to setting the direction of education and research both within and outside of engineering, clearly indicate someone making a very significant impact nationally and internationally in important cross-disciplinary areas. But Paul's academic contributions are not limited to basic and translational research, and influential committees. In terms of education, Paul is a pioneer in developing advanced modules and teaching methods specifically targeted at senior undergraduate students, at post-graduate students (both taught and research), at post-doctoral fellows, and at enabling distance education for diverse learners and diverse learning environments. These materials are striking in their clarity of thought, high degree of interactivity and the quality of their content.

Let me give the last word to one of the many testimonials from former students and current research colleagues that were included in support of Paul's nomination. This comes from a Clinical Professor in a Department of Radiology – clearly from outside of DCU:

It is my view that Paul Whelan is tremendously bright and has great vision. His ability to bring a team together and to get the best out of his co-workers is quite remarkable. On my visits to DCU I could see that he was tremendously proud and supportive of those who worked for him and their loyalty to him reflected his great leadership skills. On a personal level I really enjoyed working with Paul. He was profoundly committed to the CT colonography projects and persistent in getting from us what he needed - at the same time he was very, very patient as we constantly struggled on the clinical side to meet all his deadlines and demands! Overstretched by clinical work, I am sure Paul must have been, at times, frustrated by us but he never showed it. It was a real pleasure to collaborate with Paul - it gave me great insight into the world of engineering and the intelligence and innovation that exist therein. I know for certain that other colleagues at the [named hospital] who have worked with Paul feel the same.

In summary, in my opinion, Paul Whelan is a very worthy nominee indeed for such a prestigious award. I support him wholeheartedly and cannot imagine that there is anyone more deserving.