

Resumé

Personal details

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Education

2006 – 2011 Loughborough University, UK
PhD in Optical Engineering⁺
PhD thesis title: *Hyperspectral Interferometry for Singe-Shot Profilometry and Depth-Resolved Displacement Field Measurement*
Supervisors: Prof. J. M. Huntley and Dr. P. D. Ruiz (Wolfson School of Mechanical & Manufacturing Engineering Loughborough University, UK)

1998 - 2000 University of Dayton, Ohio, US
MSc in Electro-Optics*
Master dissertation title: *Image Post Processing Technique for Extending Microscope Depth of Focus*
Supervisor: Prof. R. C. Hardie (Electro-Optics Graduate Program, University of Dayton, Ohio, US)

⁺ IDB scholar

*Fulbright scholar 1998 - 2000

Sarjana Teknik (equivalent to BSc in Engineering)

Final project title: *Characterization of CCD camera at Bosscha Astronomical Observatory ITB* (in Indonesian language)

Supervisors: Prof. A. Handojo (Department of Engineering Physics ITB) and Dr. H. L. Malasan (Bosscha Observatory and Department of Astronomy ITB)

Publications

Journals

- 1. J.M.Huntley, T.Widjanarko, and P.D.Ruiz, "[Hyperspectral interferometry for single-shot absolute measurement of two-dimensional optical path distributions](#)", *Measurement Science & Technology*, Vol.21, no.7, 075304, July 2010 (doi:[10.1088/0957-0233/21/7/075304](#))
- 2. T. Widjanarko and R. C. Hardie, "[A Post-Processing Technique for Extending Depth of Focus In Conventional Optical Microscopy](#)", *Optics and Laser Technology*, vol 34, 299, 2002.
- 3. T.Widjanarko, J.M.Huntely and P.D.Ruiz, "Single-shot rough surface profile measurement using Hyperspectral Interferometry" (in preparation)

Conferences

1. T.Widjanarko, J.M.Huntley, P.D.Ruiz, "Hyperspectral interferometry for single-shot measurement of 3-D shape and displacement fields", *Abstract Proceeding : Photon 10*, Abstract 1659, Institute of Physics, Photon 10, Southampton, UK, August 2010, 1pp.
2. K.Iftekharuddin and T.Widjanarko, "[Reinforcement learning in multiresolution object recognition](#)", *Proceedings of 2004 IEEE International Joint Conference on Neural Networks (IJCNN)*, vols 1-4, 1085, 2004
3. T. Widjanarko, A. Handojo and H.L. Malasan, "Photon-Transfer Method for Characterization of CCD Camera System", in *Proceedings of Scientific Meeting and Presentation on Calibration, Instrumentation and Metrology*, Center of Research and Development of Calibration, Instrumentation and Metrology Indonesian Institute of Science, Jakarta, Indonesia, pp 316-324 (1996)
4. T. Widjanarko, A. Handojo and H.L. Malasan, "[Characterization of CCD Camera at Bosscha Observatory](#)", in *Proceedings of East Asia Meeting on Astronomy II: Ground-based astronomy in Asia* (N. Kaifu ed.), National Astronomical Observatory of Japan, Tokyo, Japan, pp 378-383 (1995).

Unpublished works

1. T.Widjanarko, "[Investigation of Applying Reinforcement Learning Method for Object Recognition System](#)", Final Project Paper, EECE 7740/8740 Neural Network, Spring 2003, Department of Electrical Engineering and Computer Engineering, University of Memphis, US (available at <http://www-staff.lboro.ac.uk/~mmtw/RL%20work.pdf>)
2. H.Azhar & T.Widjanarko, "[Comparison of Two Binary Image Thresholding Methods](#)", Final Project Paper, EECE 6235 Random Signal Analysis, Fall 2002, Department of Electrical Engineering and Computer Engineering, University of Memphis, US (available at <http://www-staff.lboro.ac.uk/~mmtw/RandomSigClassPaper.pdf>)

3. T.Widjanarko, "[Holographic Data Encryption and Decryption Techniques](http://www-staff.lboro.ac.uk/~mmtw/hdedc.pdf)", Preliminary research literature search, Spring 2002, Optical Image Processing Lab, Department of Electrical and Computer Engineering, Virginia Tech, US (available at <http://www-staff.lboro.ac.uk/~mmtw/hdedc.pdf>)
4. T.Widjanarko, "[Brief Survey on Three-Dimensional Displays: from Our Eyes to Electronic Hologram](http://www-staff.lboro.ac.uk/~mmtw/holopaperWeb.pdf)", Class term paper, ECE 4144 Optical Information Processing, Fall 2001, Department of Electrical and Computer Engineering, Virginia Tech, Blacksburg, Virginia 24061, USA (available at <http://www-staff.lboro.ac.uk/~mmtw/holopaperWeb.pdf> . Note: the paper is quoted as additional reference as second entry at the [external links](#) section, in the [3-D perception Holography theory](#) section of [HoloWiki](#) – an online holography database).

Patent

"Apparatus for The Absolute Measurement of Two Dimensional Optical Path Distributions Using Interferometry", Jonathan M. Huntley, Pablo D. Ruiz & Taufiq Widjanarko, UK patent no GB2472059A, WIPO 2011/010092 A1

Scholarships and Awards

- Undergraduate travel grant for attending and presenting oral paper at East Asia Meeting of Astronomy II, Tokyo, Japan, July 1995
- U.S. Department of States (formerly United States Information Agency) international scholarship '[Fulbright](#)', 1998-2000
- Indonesian Cultural Foundation scholarship, NY, 2002-2003
- Islamic Development Bank, Merit Scholarship Programme, 2006 - 2009
- Brian Mercer Feasibility Award 2010 from Royal Society (awarded to my PhD supervisor Prof. Jonathan Huntley on behalf of the team of my PhD research project – please see http://lboro.ac.uk/service/publicity/news-releases/2010/163_Jonathan-Huntley.html)