University of Birmingham

Professor Duc Truong Pham OBE, FREng, FLSW, FSME, BE, PhD, DEng, CEng, FIET, FIMechE

Head of School
Chance Professor of Engineering
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About

Duc Truong Pham has made wide-ranging contributions to the theory and practice of mechanical, manufacturing and systems engineering.

His academic output includes more than 500 technical papers and 15 books. He has supervised over 100 PhD theses to completion. He has won in excess of £30M in external research grants and contracts.

In addition to pursuing and leading research, he has also been very active with knowledge transfer to industry, applying the results of his work to help multinational companies and SMEs to generate wealth and create and safeguard jobs.

He has lectured extensively abroad on his research and has acted as a consultant to several major companies. He was Professeur Invité at École Centrale de Paris, Consulting Professor at HUST (China), Erskine Visiting Fellow at the University of Canterbury (New Zealand), Visiting Professor at the Université Paul Verlaine (France) and Visiting Professor at King Saud University (Saudi Arabia). He is currently a Strategic Scientist at Wuhan University of Technology.

He is the recipient of several prizes including the Sir Joseph Whitworth prize awarded by the Institution of Mechanical Engineers in 1996 and 2000 and the Institution's Thomas Stephens Group Prize in 2001 and 2003 and Donald Julius Groen Prize in 2004, and the 5th ICMR Best Paper Prize in 2007.

He is a Fellow of the Royal Academy of Engineering, Learned Society of Wales, Society of Manufacturing Engineers, Institution of Engineering and Technology, and Institution of Mechanical Engineers.

He was made an OBE in the 2003 New Year's Honours List for his services to Engineering.

Qualifications

- FLSW 2011
- FIMechE 2006
- FIET 2005
- FREng 2000
- FIET 1994
- DEng in Systems Engineering 1995
- PhD in Robotic Assembly 1979
- BEng (Hons) in Mechanical Engineering 1974

Biography

Duc Truong Pham obtained his Bachelor of Engineering (Mechanical) degree with First-Class Honours, PhD degree and DEng degree from the University of Canterbury, New Zealand. His DEng degree was for published work in the field of Systems Engineering in the period 1979-1993.

Between 1979 and 1988, he held a lectureship in Control Engineering at the University of Birmingham where his research focussed on robotics and automation.

In 1988, he joined Cardiff University following his appointment to the Chair in Computer-Controlled Manufacture there.

In 1996, he founded the Manufacturing Engineering Centre at Cardiff University. Under his leadership, the Centre won numerous awards for its innovative manufacturing research and industrial collaboration. Notable accolades include the Secretary of State for Trade and Industry's First Prize for “success in building lasting research partnerships with industry” and the Queen's Anniversary Prize for creating an “exceptional programme of support for firms” using the Centre’s research expertise and state-of-the-art facilities.

At Cardiff, his research encompassed the areas of intelligent systems and advanced manufacturing engineering. His projects covered topics such as knowledge-based systems for manufacturing design and quality control, robot vision and automated visual inspection systems, neural networks for non-linear systems identification and control, rapid prototyping and tooling, micro fabrication, virtual reality and multi-media intelligent product manuals. The amount of external research grants and contracts he secured for the Centre exceeded £30M.

He returned to the University of Birmingham in 2011 to take up the position of Head of the School of Mechanical Engineering and Chance Professor of Engineering

Appointments

Present

- Chance Professor of Engineering and Head of School of Mechanical Engineering, University of Birmingham (since October 2011).

Previous

- Professor of Computer-Controlled Manufacture (October 1988 - September 2011) and Founder Director of the Manufacturing Engineering Centre, Cardiff University (November 1996 - September 2011).
- Lecturer in Control Engineering, Department of Mechanical Engineering, University of Birmingham (October 1979 - September 1988).

Other

- Strategic Scientist: 2013 - 2018, Wuhan University of Technology, Wuhan, China.
- Visiting Professor: 2010 - 2012, King Saud University, Riyadh, Saudi Arabia.
- Visiting Professor: September 2010, Université de Metz, France.
- Erskine Visiting Fellow: July-August 1991, University of Canterbury, New Zealand.
- Consulting Professor: 1987, Huazhong University of Science & Technology, Wuhan, China.
- Professeur Invité: May 1985 and January 1986, Ecole Centrale de Paris.

Prizes/Awards

Research papers

- 5th ICMR Best Paper Prize (2007, 5th Int Conf on Manufacturing Research) (with K Popov, S Dimov and A Ivanov)
- Donald Julius Groen Prize (2004, Institution of Mechanical Engineers) (with R Setchi)
- Thomas Stephens Group Prize (2003, Institution of Mechanical Engineers) (with S Dimov, P V Petkov and S P Petkov)
- Joseph Whitworth Prize (2000, Institution of Mechanical Engineers) (with X Wang)
- Thomas Stephens Group Prize (2000, Institution of Mechanical Engineers) (with S Dimov and F Lacan)
- Joseph Whitworth Prize (1995, Institution of Mechanical Engineers) (with E Oztemel)

Other

- OBE for contribution to engineering (2003 New Year's Honours)
- Innovation Network Special Award for contribution to innovation and to the links between university and industry (1999, Cardiff University)

Research

Research Themes

Rapid manufacturing, micro manufacturing, automation, robotics, IT and intelligent systems.

Some of the major grants awarded to D T Pham as principal investigator:

- "Automated Manufacturing Process Integrated with Intelligent Tooling Systems (AUTOMAN)" (2014-2017), *Sponsor: TSB/EPSRC*, Value: £286,814
- "Flexible tooling for the manufacture of free-form architectural cladding and facades (FLEXITOOL)" (2010-2012), *Sponsor: European Commission (FP7),* Value: £385,062.
- "Research, build and test the world's first low cost integrated 1kW remote environmental monitoring system using novel platinum free liquid regenerating cathode technology" (2009 -2012), *Sponsor: TSB,* Value: £127,416.
- "Intelligent robot swarm for attendance, recognition, cleaning and delivery (IWARD)" (2007-2009), *Sponsor: Commission of European Communities,* Value: £198,220.
- "Digitally adjustable tooling for manufacturing of aircraft panels using multi-point forming methodology (DATAFORM)" (2006-2009), *Sponsor: Commission of European Communities,* Value: £433,160.
- "Development of lithography technology for nanoscale structuring of materials using laser beam interference (DELILA)" (2006-2009), *Sponsor: Commission of European Communities,* Value: £386,980.
- "MicroTechnologies for Re-launching European Machine Manufacturing SMEs (LaunchMicro)" (2005-2009), *Sponsor:* EC FP6*,* Value: £ 300,000.
- "Innovative production machines and systems I*PROMS - RCMC008" (2004-2009), *Sponsor: Commission of European Communities,* Value: £945,102.
- "Supporting innovative product engineering and responsive manufacture (SUPERMAN Phase 2)" (2004-2007), *Sponsor: The National Assembly for Wales (European Regional Development, Fund),* Value: £2,505,348.
- "Supporting innovative product engineering and responsive manufacture (SUPERMAN)" (2001-2003), *Sponsor:The National Assembly for Wales (European Regional Development Fund),* Value: £5,330,982.

Other activities

Committee Memberships

- Member of the Research Excellence Framework 2014 Sub-Panel 12 (Aeronautical, Mechanical, Chemical and Manufacturing Engineering) (2011-2014)
- Member of the Manufuture Implementation Support Group, European Commission (2014 -)
- Member of Panel of Experts, G8 Research Councils Initiative on Multilateral Research Funding (Nov 2011-Apr 2012)
- Member of the Programme Board of the Manufacturing Technology Centre (2011 – to date)
- Member of the Scientific Advisory Board of VTT (Finland) (2009-2010)
- Member of the Steering Group for the Royal Academy of Engineering Distinguished Visiting Fellowship Scheme (2007-2011)
- Member of the IEEE Technical Committee on Industrial Agents (2005 – to date)
- Member of the Research Assessment Exercise 2008 Sub-Panel 28 (Mechanical, Aeronautical and Manufacturing Engineering) (2005-2008)
- Member of the Manufacturing Industry Division Board of the Institution of Mechanical Engineers (2004 - to date)
- Member of Membership Panel 1 of the Royal Academy of Engineering (2003-2006)
- Member of the EPSRC College of Peers (2000 - to date)
- Member of the International Federation of Automatic Control Technical Committee for Robotics (1998 - to date)
- Member, vice-chairman and deputy chairman of the Manufacturing Division Board of the Institution of Electrical Engineers (1998-2000)
- Editor-in-Chief of Cogent Engineering (2014 -)
- Co-editor of the International Journal of Production and Manufacturing Research (2013 -) and Associate Editor of the Journal of Mechanical Engineering Science

(2013 -)

- Member of the editorial boards of several international journals including the IEEE Transactions on Industrial Electronics (2005-2006), IMechE Proceedings Part C (1999 - to date), Part B Short Communications (2002-2007), Part I (2007 - to date), Robotica (1998 - 2012), and Int J of Systems Science (1998 - 2013), International Journal of Automation and Control (2004 – to date), International Journal of Virtual and Physical Prototyping (2006 –) and Micromachines (2010 –) and International Journal of Advances in Systems Science and Applications (2013 -).

Professional Affiliations

- Fellow of the Learned Society of Wales (elected in 2011)
- Fellow of the Institution of Mechanical Engineers (since 2006)
- Fellow of the Society of Manufacturing Engineers (elected in 2005)
- Fellow of the Royal Academy of Engineering (elected in 2000)
- Fellow of the Institution of Engineering and Technology (since 1994)

Publications

Keynote Papers and Invited Presentations

- "The Bees Algorithm – An Effective Nature-Inspired Optimisation Tool", **World Automation Congress (WAC 2014)**, Waikoloa, Hawaii (2014).
- "Engineering nature", **International Conference on Computing, Control and Industrial Engineering (CCIE 2013)**, Wuhan, China (2013).
- "The Bees Algorithm – some applications in engineering and manufacture", **International Conference on Manufacturing Research (ICMR 2013)**, Cranfield (2013).
- "Intelligent optimisation", **International Conference on Industrial Engineering and Systems Management (IESM 2011)**, Metz, France (2011).
- "Fit manufacturing", **International Conference on Lean Enterprise Software and Systems (LESS 2010)**, Helsinki, Finland (2010)
- "Fit manufacturing systems", **5th IEEE International on System of Systems Engineering**, Loughborough (2010)
- "Linking fit manufacturing, marketing and product innovation strategies to achieve long term economic sustainability", **10th International Conference on Industrial Technology Innovation,** Taipei, Taiwan (2009)
- "Recent developments in micro manufacturing", **Tampere Manufacturing Summit, Tampere Hall**, Tampere, Finland (2009)
- "Recent advances in micro and nano manufacturing", **4th International Conference on Digital Enterprise Technology,**Bath (2007)
- "Integrated Production Machines and Systems – Beyond lean manufacturing", **International Conf on Manufacturing Automation (ICMA 2007)**, Singapore (2007)
- "Digital manufacturing", **5th International Conference on e-Engineering & Digital Enterprise Technology, e-ENGDET 2006,**Guiyang, China (2006)
- "Integrating EU advanced manufacturing research", **2nd IEEE Int Conf on Industrial Informatics**, INDIN 2004, Berlin (2004)
- "Layer manufacturing processes: technology advances and research challenges", **1st Int Conference on Advanced Research in Virtual and Rapid Prototyping,** Leiria, Portugal (2003)
- "Rapid manufacturing: technologies and applications", **Int Conference on Manufacturing Automation – Rapid response solutions to product development,** Hong Kong (2002)
- "Machine learning: techniques and trends", **9th Int Workshop on Systems, Signals and Image Processing,**Manchester (2002)
- "Machine learning in manufacturing", **3rd CIRP International Seminar on Intelligent Computation in Manufacturing Engineering (ICME),**Ischia, Italy (2002)
- "Intelligent design and product support", **International Conference on Artificial Intelligence for Engineering,** Wuhan, China (1998)

Selected Publications

Recent Journal papers

- J Cao, W Fu, M Li, C Liu, S Su and D T Pham (2014), "Numerical simulation and accuracy analysis of multi-point thermoforming of polycarbonate sheet", **Nongye Jixie Xuebao/Transactions of the Chinese Society of Agricultural Machinery**, Volume 45(1), pp 335-340, ISSN: 10001298, DOI: 10.6041/j.issn.1000-1298.2014.01.051.
- W A Y Yusoff, D T Pham and K D Dotchev (2014), "Investigation of the thermal properties of different grades Polyamide 12 (PA12) in improving laser sintering process (SLS)", **Applied Mechanics and Materials**, Volumes 548-549, pp 294-296, DOI: 10.4028/www.scientific.net/AMM.548-549.294.
- B Yuce, E Mastrocinque, A Lambiase, M S Packianather and D T Pham (2014), "A multi-objective supply chain optimisation using enhanced Bees Algorithm with adaptive neighbourhood search and site abandonment strategy", **Swarm and Evolutionary Computation**, Available online 24 April 2014, http: //dx.doi.org/10.1016/j.swevo.2014.04.002, ISSN 2210-6502.
- A A Mousa, D T Pham and S P Soe (2014), "Pre-processing studies for selective laser sintering of glass beads-filled polyamide 12 composites", **Int J Rapid Manufacturing**, Volume 4(1), pp 28-48, ISSN 1757-8817 (print) and 1757-8825 (online).
- M Bowker, J J Crouch, A F Carley, P R Davies, D J Morgan, G Lalev, S Dimov and D T Pham (2014), "Encapsulation of Au nanoparticles on a silicon wafer during thermal oxidation", **Journal of Physical Chemistry C**, 117(41), pp 21577-21582, ISSN: 19327447, DOI: 10.1021/jp4074043.
- D T Pham, M Yang and M Al-Kutubi (2013), "In-solid acoustic sources extraction using a multi-sensor architecture", **Advances in Systems Science and Applications**, Volume 13 (4), pp 369-378, ISSN:1078-6236.
- M C Ang, K W Ng and D T Pham (2013), "Combining the Bees Algorithm and shape grammar to generate branded product concepts", **Proceedings of Institution of Mechanical Engineers**, Part B, Volume 227 (12), (2013), pp 1860-1873, ISSN 0954-4054.
- B Yuce, M S Packianather, E Mastrocinque, D T Pham, A Lambiase (2013), "Honey Bees Inspired Optimization Method: The Bees Algorithm", **Insects**, Volume 4(4), pp 646-662, DOI 10.3390/insects4040646.
- D T Pham and M Castellani (2013), "Benchmarking and comparison of nature-inspired population-based continuous optimisation algorithms", **Soft Computing**, DOI 10.1007/s00500-013-1104-9, Published online 11 August 2013.
- W J Xu, Z D Zhou, D T Pham, Q Liu, C Ji and W Meng (2012), "Quality of service in manufacturing networks: a service framework and its implementation", **Int J of Advanced Manufacturing Technology**, Volume 63 (9-12), pp 1227-1237, **DOI**: 10.1007/s00170-012-3965-y.
- G A Ruz and D T Pham (2012), "NBSOM: The naive Bayes self-organizing map", **Neural Computing and Applications**, Volume 21 (6), pp 1319-1330, **DOI**: 10.1007/s00521-011-0567-9.
- M M Suarez-Alvarez, D T Pham, M Y Prostov and Y I Prostov (2012), "Statistical approach to normalization of feature vectors and clustering of mixed data sets", **Proceedings of the Royal Society A**, Published online 18 April 2012, Volume 468, pp 2630–2651, **DOI**: 10.1098/rspa.2010.0594.
- M Castellani, Q T Pham and D T Pham (2012), "Dynamic optimization by a modified Bees Algorithm", **Proceedings of Institution of Mechanical Engineers**, Part I, Volume 226, pp 956–971, ISSN 0954-4054.
- Q T Pham, D T Pham and M Castellani (2012), "A modified bees algorithm and a statistics-based method for tuning its parameters", **Proceedings of Institution of Mechanical Engineers**, Part I, Volume 226, pp 287-301, ISSN 0954-4054.

- D T Pham and A J Thomas (2012), “Fit manufacturing: a framework for sustainability”, J of Manufacturing Technology Management, Volume 23, pp 103-123, ISSN 1741-038X.
- F J Ramirez, M S Packianather and D T Pham (2011), “Improving Multistage Plastic Deformation Processes by Means of a Sustainable Manufacturing System”, **IEEE Systems Journal**, Volume 5 (3), pp 332-341, ISSN 1932-8184.
- D J Chen, Z D Zhou, Y Z Ma and D T Pham (2011), “Design of agent-based supply chain-oriented virtual enterprise platform”, **Kybernetes**, Volume 40(5/6), pp 800-806, ISSN 0368-492X, **DOI**: 10.1108/03684921111142331
- D T Pham, S Z Su and M Li (First published on: 17 May 2011), “An integrated manufacturing system with reconfigurable multi-point forming technology for fabrication of complex cladding and facades”, **Advanced Materials Research**, Volumes 243-249, pp 3507-3512, **DOI**:10.4028/www.scientific.net/AMR.243-249.3507
- W Xu, Z Zhou, D T Pham, C Ji M Yang and Q Liu (2011), “Hybrid congestion control for high-speed networks”, **Journal of Network and Computer Applications**, Volume 34, pp 1416-1428, ISSN 1084-8045/$, **DOI**:10.1016/j.jnca.2011.03.025
- D T Pham, M M Suarez-Alvarez and Y I Prostov, first published on: 9 March 2011, “Random search with *k*-prototypes algorithm for clustering mixed datasets”,**Proceedings of the Royal Society A**, **DOI**: 10.1098/rspa.2010.0594.
- S Xu, Z Ji, D T Pham and F Yu, first published on: 30 March 2011 (iFirst), “Binary Bees Algorithm - bioinspiration from the foraging mechanism of honeybees to optimize a multiobjective multidimensional assignment problem”, **Engineering Optimization**, **DOI**: 10.1080/0305215X.2010.542812
- G A Ruz and D T Pham, first published on: 2 March 2011, “NBSOM: The naïve Bayes self-organizing map”, **Neural Computing and Applications**, **DOI**: 10.1007/s00521-011-0567-9
- S Xu, F Yu, Z Luo, Z Ji, D T Pham and R Qiu , first published on 4 January 2011, “Adaptive Bees Algorithm—Bioinspiration from honeybee foraging to optimize fuel economy of a semi-track air-cushion vehicle”, **The Computer Journal**, **DOI**: 10.1093/comjnl/bxq097
- D T Pham, O Adebayo-Williams and A J Thomas (2011), “A framework for Fit Manufacturing”, **International Journal of Computer Aided Engineering and Technology**,Volume 3, pp. 415-431, ISSN 1757-2657.
- S Xu, Z Ji, D T Pham and F Yu (2011), “Simultaneous localization and mapping: swarm robot mutual localization and sonar arc bidirectional carving mapping”, **Proceedings of Institution of Mechanical Engineers,** Part C, Volume 225, pp 733-744**,** ISSN 0954 4062, **DOI**: 10.1243/09544062JMES2239
- W Xu, Z Zhou, D T Pham, C Ji, M Yang, Q Liu (2010), “Unreliable transport protocol using congestion control for high-speed networks”, **J Systems and Software,** 83(12), pp 2642–2652, **DOI**: 10.1016/j.jss.2010.08.046
- M Bowker, M Broughton, A Carley, P Davies, D Morgan, J Crouch, G Lalev, S Dimov and D T Pham (2010), “Influence of Thermal Treatment on Nanostructured Gold Model Catalysts”, **Langmuir**, American Chemical Society, *26* (21), pp 16261–16266, **DOI:** 10.1021/la101372w
- E E Eldukhri and D T Pham (2010), *“*Autonomous swing up of a robot gymnast”, **Proceedings of Institution of Mechanical Engineers**, Part I, Volume 224, pp. 825-832**,** ISSN 0959 6518.
- D T Pham and A Haj Darwish (2010), “Using the Bees Algorithm with Kalman filtering to train an Artificial Neural Network for Pattern Classification”, **Proceedings of Institution of Mechanical Engineers**, Part I, Volume 224, pp. 885-892**,** ISSN 0959 6518.
- D T Pham and M Castellani (2010), “An adaptive selection routine for evolutionary algorithms”, **Proceedings of Institution of Mechanical Engineers,** Volume 224, Part I, pp. 623-633, ISSN 0959 6518.
- S Xu, Z Ji, D T Pham and F Yu (2010), “Bio-Inspired Binary Bees Algorithm for a Two-Level Distribution Optimisation Problem”, **J of Bionic Engineering**,Volume 7, pp. 161-167, DOI 10.1016/S1672-6529(09)60205-5
- M Bowker, A F Carley, P R Davies, D J Morgan, J Crouch, G Lalev, S Dimov and D T Pham (2010), “Effects of the Nanostructuring of Gold Films upon Their Thermal Stability”, **ACS (American Chemical Society) Nano**, Volume 4 (4), pp. 2228-2232.
- D T Pham and E Koç (2010), “Design of a two-dimensional recursive filter using the Bees Algorithm”, **International Journal of Automation and Computing,** Volume 7 (3), pp. 399-402.
- K Popov, S S Dimov, A Ivanov, D T Pham and E Gandarias (2010), “New tool-workpiece setting up technology for micro-milling”, **International Journal of Advanced Manufacturing Technology**, Volume 47 (1-4), pp. 21-27.
- E B Brousseau, S S Dimov and D T Pham (2010), “Some recent advances in multi-material micro- and nano- manufacturing”, **International Journal of Advanced Manufacturing Technology**, Volume 47 (1-4), pp. 161-180.
- P Wright, A J Soroka, S Belt, D T Pham, S S Dimov, D De Roure and H Petrie (2010), “Using audio to support animated route information in a hospital touch-screen kiosk”, **Computers in Human Behavior**, Volume 26, , pp 753–759, ISSN 0747-5632
- D T Pham and M Castellani (2009), “The Bees Algorithm: modelling foraging behaviour to solve continuous optimization problems”, **Proceedings of Institution of Mechanical Engineers**, Part C, Volume 223, , pp 2919-2938**,** ISSN 0954 4062.
- D T Pham and G A Ruz (2009), “Unsupervised training of Bayesian networks for data clustering”, **Proceedings of the Royal Society A,** Published online 8 July 2009, **DOI**: 10.1098/rspa.2009.0065, Volume 465, 2927-2948.
- D T Pham, A Ghanbarzadeh, S Otri and E Koç (2009), “Optimal design of mechanical components using the Bees algorithm”, **Proceedings of Institution of Mechanical Engineers**, Part C, Volume 223, , pp 1051-1056**,** ISSN 0954 4062.
- D T Pham, A Haj Darwish and E E Eldukhri (2009), “Optimisation of a fuzzy logic controller using the Bees Algorithm”, **Int J of Computer Aided Engineering and Technology**, Volume 1, , pp. 250 – 264, ISSN 1757-2657.
- D T Pham, Z Ji and A Soroka (2009), “Ultrasonic distance scanning techniques for mobile robots”, **Int J of Computer Aided Engineering and Technology**,Volume 1, , pp. 209 – 224, ISSN 1757-2657.
- C Pasantonopoulos, S S Dimov, R M Setchi and D T Pham (2009), “An object-oriented framework for virtual intelligent product manuals”, **Int J of Systems Science**, Volume 40, , pp 187-204, ISSN 0020-7721.
- G A Ruz and D T Pham (2009), “Building Bayesian network classifiers through a Bayesian complexity monitoring system”, **Proceedings of Institution of Mechanical Engineers**, Part C, Volume 223, , pp 743-755**,** ISSN 0954 4062.
- D T Pham, P T N Pham and A J Thomas (2008), “Integrated production machines and systems – beyond lean manufacturing”, **J of Manufacturing Technology Management**, Volume 19, , pp 695-711, ISSN 1741-038X.
- D J Chen, Z D Zhou and D T Pham (2008), “Research on the grey relational evaluation method of core competencies of virtual enterprise members”, **Kybernetes**, Volume 37, Issues 9-10, , 1250-1256, ISSN 0368-492X.
- D J Chen, Z D Zhou, Y Z Ma and D T Pham (2008), “Modeling of RBAC-based access control of virtual enterprise”, **Kybernetes**, Volume 37, Issues 9-10, , 1242-1249, ISSN 0368-492X.
- D T Pham, K D Dotchev and W A Y Yusoff (2008), “Deterioration of polyamide powder properties in the laser sintering process”, **Proceedings of Institution of Mechanical Engineers**, Part C, Volume 222, , pp 2163-2176**,** ISSN 0954 4062.
- D T Pham and A A Afify (2008), “A new minimum description length based pruning technique for rule induction algorithms”, **Proceedings of Institution of Mechanical Engineers**, Part C, Volume 222, , pp 1339-1352**,** ISSN 0954 4062.
- D T Pham, M S Packianather and E Y A Charles (2008), “Control chart pattern clustering using a new self-organizing spiking neural network”, **Proceedings of Institution of Mechanical Engineers***,* Part B, Volume 222, , pp 1201-1211, ISSN 0954-4054.

- T Dobrev, D T Pham and S S Dimov(2008),"Techniques for improving surface quality after laser milling", **Proceedings of Institution of Mechanical Engineers**, Part B, Volume 222, , pp 55-65, ISSN 0954-4054.
- P V Petkov, S S Dimov, R M Minev and D T Pham (2008), "Laser milling: pulse duration effects on surface integrity", **Proceedings of Institution of Mechanical Engineers**, Part B, Volume 222, , pp 35-45, ISSN 0954-4054.

Books

- D T Pham, E E Eldukhri and A J Soroka (Editors) (2009), **Innovative Production Machines and Systems - Proceedings of the 5th Virtual International Conference on Innovative Production Machines and Systems**, Whittles (Dunbeath, Caithness) and CRC Press (Boca Raton, FL), pp 448-453, ISBN 978-1-84995-007-7.
- D T Pham, E E Eldukhri and A J Soroka (Editors) (2008), **Innovative Production Machines and Systems-Proceedings of the 4th Virtual International Conference on Innovative Production Machines and Systems,** Whittles (Dunbeath, Caithness) and CRC Press (Boca Raton, FL), 598 pp, ISBN 978-1-4398-0117-8.
- D T Pham, E E Eldukhri and A J Soroka (Editors) (2007), **Innovative Production Machines and Systems-Proceedings of the 3rd Virtual International Conference on Innovative Production Machines and Systems,** Whittles (Dunbeath, Caithness) and CRC Press (Boca Raton, FL), ISBN 978-1904445-52-4.
- D Andina and D T Pham (Editors) (2007), **Computational Intelligence for Engineering and Manufacturing**, Springer (Dordrecht), 212 pp, ISBN-10 0-387-37450-7
- D T Pham, E E Eldukhri and A J Soroka (Editors) (2006), **Intelligent Production Machines and Systems - Proceedings of the 2nd Virtual International Conference on Intelligent Production Machines and Systems,** Elsevier Science (Oxford), 671pp, ISBN-10 0-080-45157-8
- D T Pham, E E Eldukhri and A J Soroka (Editors) (2005), **Intelligent Production Machines and Systems - Proceedings of the 1st Virtual International Conference on Intelligent Production Machines and Systems,** Elsevier Science (Oxford), 671pp, ISBN 0-080-44730-9
- D T Pham and R J Alcock (2002), **Smart Inspection Systems**, Academic Press (Oxford), 221pp, ISBN 0-12-554157-0.
- D T Pham, S S Dimov and V O'Hagan (Editors) (2001), **Advances in Manufacturing Technology XV – Proceedings of the 17th National Conference on Manufacturing Research,** Professional Engineering Publishing (London), 487pp, ISBN 1-86058-325-3.
- D T Pham and S S Dimov (2000), **Rapid Manufacturing - Technologies for Rapid Prototyping and Tooling,**Springer-Verlag (London), 234pp, ISBN 1-85233-360-X.
- D T Pham and D Karaboga (2000), **Intelligent Optimisation Techniques: Genetic Algorithms, Tabu Search, Simulated Annealing and Neural Networks**, Springer-Verlag (London), 302 pp, ISBN 1-85233-028-7.
- D T Pham and E Oztemel (1996), **Intelligent Quality Systems**, Springer-Verlag (London), 201pp, ISBN 3-540-76045-8.
- D T Pham and X Liu (1995), **Neural Networks for Identification, Prediction and Control**, Springer-Verlag (London), 238 pp, ISBN 3-540-19959-4.
- D T Pham (Editor) (1991), **Artificial Intelligence in Design**, IFS (Bedford UK) and Springer-Verlag (London), 499 pp, ISBN 3-540-50634-9
- D T Pham (Editor) (1988), **Expert Systems in Engineering**, IFS (Bedford) / Springer-Verlag (London), 500 pp, ISBN 3-540-19229-8.
- D T Pham and W B Heginbotham (Editors) (1986), **Robot Grippers,** IFS (Bedford) / Springer-Verlag (London), 450 pp, ISBN 3-540-16004-3.

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