

Dr. Eldaw E. Eldukhri

Curriculum Vitae

Profile:

Dr. Eldaw E. Eldukhri is **Associate Professor** at the College of Applied Engineering, King Saud University, Kingdom of Saudi Arabia. Before Joining King Saud University on January 2016, he was Senior Research Fellow (=Senior Lecturer/Associate Professor) at Cardiff School of Engineering, Cardiff University, UK. He obtained his **BEng** (Electrical) degree with **First-class Honours** from Sudan University of Science and Technology, Khartoum, Sudan in 1988. He received his **MSc** and **PhD** degrees from **Salford University**, United Kingdom in 1992 and 1996 respectively. Between 1996 and 1999, he was **Assistant Professor** and **Head** of Electrical Engineering Department, Sudan University of Science and Technology, Sudan.

From July 1999 until he joined King Saud University, his work responsibilities at Cardiff University, UK included **attracting external funding** for research, **lecturing**, **supervision of postgraduate students**, **team development and leadership** and **project management**. He has been involved in the editing and review process for several conferences and technical journals. He has organised and chaired many special sessions within international conferences and published numerous conference and journal papers.

Between 2004 and 2009, He was the manager of the EU Network of Excellence on Innovative Production Machines and Systems (I*PROMS) which comprised **30** partner organisations (universities including **Cardiff, Oxford, Cambridge, Warwick, Hannover, Naples**; research centres and multinational companies) from **14** European countries. He was also the Chair of the Organising Committee for the Virtual International Conference series organised by the Network and co-editor of the Conference Proceedings and consequent special issues in relevant international journals.

Dr. Eldukhri is **chartered engineer** (CEng) and **member** of both the Institution of Engineering and Technology (IET) and the Institute of Electrical and Electronics Engineers (IEEE). He is an independent **expert** and **advisor** for the European Commission's Research Framework Programmes. He is also an **expert evaluator** for King Abdul Aziz City for Science and Technology (KACST).

His research interests include: control systems design and applications, advanced robotics, mechatronics, intelligent and sustainable manufacturing.

He is also actively involved in development and strategic planning activities including his role as chair of the Unit for Development and Quality, Unit for Academic Advice and Committee for Graduation Projects at the College of Applied Engineering, King Saud University. In addition, he was a member of the University Committee for Boosting the Kingdom's world position in the field of Artificial Intelligence.

In recognition of his distinctive efforts, he was nominated by the College of Applied Engineering in 2019 for the King Saud's Teaching Excellence Award.

The following sections provide details of the qualifications, training, work experience, lists of research grants and PhD students and list of publications.

Personal details:

- Nationality: British

Qualifications:

- 2004, Certificate for Leading and Managing Teams, accredited by the Institute of Leaders and Managers, UK.
- 1996, PhD in Control and Robotics, University of Salford, United Kingdom.

- 1992, MSc in Electronic Control Engineering, University of Salford, UK.
- 1988, BEng with First-Class Honours in Electrical Engineering (Control), Sudan University of Science and Technology, Khartoum, Sudan.

Employment History

- January 2016 – Present, Associate Professor, College of Applied Engineering, King Saud University, Muzahimiyah Campus, Kingdom of Saudi Arabia.
- November 2008 – December 2015, Senior Research Fellow (Grade 8), Cardiff School of Engineering, Cardiff University, UK.
- January 2004 – October 2008, Research Fellow, Manufacturing Engineering Centre, Cardiff University, UK.
- July 1999 - December 2003, Research Associate, Manufacturing Engineering Centre, Cardiff University, UK.
- 1996 - June 1999, **Assistant Professor** and **Head** of the Electrical Engineering Department, Sudan University of Science and Technology, Khartoum, Sudan.
- 1992 - 1996, PhD student, Salford University, United Kingdom.
- 1991 - 1992, MSc Course in Electronic Control, Salford University, United Kingdom.
- 1988 - 1990, Teaching Assistant at the Department of Electrical Engineering, Sudan University of Science and Technology, Khartoum, Sudan.

Professional Affiliation:

- July 2016 – Present, Member of IEEE. <http://www.ieee.org>
- 1999 - Present, Chartered Engineer (CEng) and Member of IET. <http://www.theiet.org>
- 2005 – 2014, Member of UK Automatic Control Council (UKACC). <http://ukacc.group.shef.ac.uk/>
- 2002 – Present, Affiliate member of IFAC. <http://www.ifac-control.org>
- 1991 - 1999, Associate Member of IEE. <http://www.theiet.org>
- 1991 - 1996, Student Member of IEEE. <http://www.ieee.org>

Training

- 2 March – 19 April 2021, attended 8, 4-hour workshops on quality and academic accreditation organized by the Deanship for Development and Quality, King Saud University, Kingdom of Saudi Arabia. At the end of the series, he was declared a qualified practitioner of quality and academic accreditation after passing the related test.
- 4 – 7 April 2016, attended the Active Learning for Enhancing Learning Outcomes Forum organised by the Deanship of Skills Development, King Saud University, Riyadh, Kingdom of Saudi Arabia.
- June 2008, a one-day course on “Supervising Research Students” organised by the Personnel Division, Cardiff University, UK.
- May 2004, a 6-day workshop on “Leading and Managing Teams” organised by the Personnel Division, Cardiff University, UK. The course has been accredited by the Institute of Leadership and Management (ILM), UK.
- September 2002, a one-day course on “Lecturing Skills” organised by the Personnel Division, Cardiff University, UK.

- September 2000, a one-day course on “Lecturing Large Groups” organised by the Personnel Division, Cardiff University, UK.

Key Roles:

- September 2021 – September 2022, Member of University Committee for Boosting the Kingdom’s world position in the field of Artificial Intelligence appointed by the Vice Dean for Academic and Educational Affairs, King Saud University, Kingdom of Saudi Arabia.
- September 2021 – Present, Chair of the Committee for Graduation Projects, College of Applied Engineering, King Saud University, Kingdom of Saudi Arabia.
- September 2016 – Present, Chair of the Unit for Quality and Development, College of Applied Engineering, King Saud University, Kingdom of Saudi Arabia.
- January 2016 – Present, Leader and lecturer of: Physics for Engineers II, Electrical Circuits and Machines, Engineering Electromagnetics, Fundamentals of Power Systems, Automatic Control and AI courses at the College of Applied Engineering, King Saud University, Kingdom of Saudi Arabia.
- 2013 – 4 Sept. 2014, Leader and lecturer of Mechanical Engineering 2 module on the Clinical Engineering MSc programme, Cardiff University, UK.
- 2012 – 4 Sept. 2014, Leader and lecturer of **Control and Instrumentation** module taught to Electrical, Mechanical and Medical Engineering students, Cardiff University, UK.
- 2004 – 4 Sept. 2014, Principal Investigator of research grants (detailed below) funded by the European Commission.
- October 2011 – Sept. 2014, Line Manager of six senior research staff, School of Engineering, Cardiff University, UK.
- October 2011 – March 2012, Chair of the Working Group for developing a procedure for maintaining smooth operation and efficient joint use of the multi-million manufacturing facilities within the School of Engineering, Cardiff University, UK.
- February – May 2011, Chair of the Working Group for recommending measures to improve the Grant Applications Review Procedure within the School of Engineering, Cardiff University, UK.
- 18 – 21 August 2009, Acting Director of the Manufacturing Engineering Centre, Cardiff University, UK.
- 2004 – 2009, Manager of the €7.5 Million EU-funded Network of Excellence in the area of Innovative Production Machines and Systems (I*PROMS) which comprises 30 organisations from 14 European countries.
- 1999 – 2004, **Leader and lecturer of Control Engineering and Automatic Control** courses to students at Cardiff University, UK.
- 1999 - 2003, Project Manager, Manufacturing Engineering Centre, Cardiff University, UK.
- 1996-1999, **lecturing** Electrical Engineering and **Modern Control Systems** courses to undergraduate and postgraduate students at Sudan University of Science and Technology, Sudan.
- 1996 -1999, **Head** of Electrical Engineering Department, Sudan University of Science and Technology, Khartoum, Sudan.

Research grants at Cardiff University, UK

- Anayi F, **Eldukhri E E**
Title: “Design of efficient low cost brushless motors”
Sponsor: ELECTRONIA PRODUCTS LTD
Value: £17,522; Duration: 01/10/2013 - 30/09/2015

- **Eldukhri EE, Matthews CW**
Title: “MINAM 2.0 - Paving the ground for the second generation of highly effective, application orientated micronano manufacturing community in Europe”
Sponsor: European Commission (FP7)
Value: £31,210; Duration: 01/12/2010 - 30/11/2012
- **Eldukhri EE**
Title: “SHIPWELD - Automatic welding process for the shipbuilding industry”
Sponsor: Commission of the European Communities
Value: £205,000; Duration: 01/01/2010 - 31/10/2012
- **Eldukhri EE, Scholz SG**
Title: “EUMINAFAB - Integrating European micro/nano manufacturing research infrastructures”
Sponsor: Commission of European Communities
Value: £656,370; Duration: 01/03/2009 - 31/08/2013
- **Eldukhri EE, Pham DT, Setchi RM, Dimov SS, Packianather MS, Thomas AJ, Soroka AJ**
Title: “Innovative production machines and systems I*PROMS - RCMC008”
Sponsor: Commission of European Communities
Value: £945,102; Duration: 01/10/2004 - 30/09/2009

Postgraduate students at Cardiff University, UK

- **Hafizul Azizi Ismail (Graduated)**
Degree: PhD
Title: Robotics and Control/Control Systems Engineering
Supervisor(s): **Dr E E Eldukhri**, Dr M S Packianather
- **ETUMI Adel Ali Amar (Graduated)**
Degree: PhD
Title: Digital relay scheme based on correlation technique for transformer protection
Supervisor(s): Dr F Anayi, Dr A Fahmy, **Dr E E Eldukhri**
- **MOHAMED Nasir Yousef (Graduated)**
Degree: PhD
Title: Design Optimisation of Permanent Magnet Synchronous Motor for Electric Vehicles Traction using the Bees Algorithm
Supervisor(s): Dr F Anayi, **Dr E E Eldukhri**, Dr A Fahmy
- **ISMAEL Adel Ahmed Ali (Graduated)**
Degree: PhD
Title: Microprocessor-controlled Brushless and slotless DC Linear Stepping Motor
Supervisor(s): Dr F Anayi, **Dr E E Eldukhri**
- **Ali Al-Khafaji (Graduated)**
Degree: PhD
Title: Optimal control of a mechatronic system
Supervisor(s): Dr R Grosvenor, **Dr E E Eldukhri**
- **KAMIL Haider Galil (Graduated)**
Degree: PhD
Title: Robotics and Control/Control Systems Engineering
Supervisor(s): **Dr E E Eldukhri**, Dr Y Xue
- **NEGM Mohamed Abdel Fattah Mohamed Elshawadfy (Graduated)**
Degree: MPhil

Title: An improved version of the bees algorithm based on an adaptive learning search framework

Supervisor(s): Prof D T Pham, **Dr E E Eldukhri**

- DARWISH Ahmed Haj (**Graduated**)

Degree: PhD

Title: Enhanced Bees Algorithm with Fuzzy Logic and Kalman Filtering

Supervisor(s): Prof D T Pham, **Dr E E Eldukhri**

Area of Research:

- Advanced Control Systems Design and Applications;
- Mechatronics;
- Design and Control of Advanced Robotics;
- Intelligent and Sustainable Manufacturing Systems.

Work Experience:

- 1 July – 1 August 2017, Visiting Academic at School of Engineering, Cardiff University, UK
- 15 June – 15 July 2016, Visiting Academic at School of Engineering, Cardiff University, UK.
- 2016 - present, Editor, Cogent Engineering Journal, <https://www.cogentoa.com/journal/engineering>
- 2011, Co-editor, Special Issue on Innovative Productions Machines and Systems (I*PROMS) in the Int. J. Computer Aided Engineering and Technology (IJCAET), Vol. 3, No. 3/4.
- 2010, Guest speaker at the Industrial Technologies 2010 Conference, Brussels, Belgium, 7-9 September 2010. <http://www.industrial-technologies2010.eu/>
- 2010 – Present, Expert Evaluator for the EU Research Framework Programmes.
- 2010, Guest speaker at the 4th Conference of the EU 7th Framework Programme, "EU Framework Programmes: From Economic Recovery to Sustainability", Valencia, Spain, 13 – 14 April 2010. <http://www.r2sconference.eu/programmeDay1.php>
- 2009 – Present, Expert Evaluator for King Abdul Aziz City for Science and Technology (KACST), Saudi Arabia. <http://www.kacst.edu.sa>
- 2009, Chair of the Organising Committee for the 3rd Manufacturing in FP7 (EU's 7th Framework Programme) Conference, Cardiff, UK, 14-15 January 2009.
- 2009, Technical programme Chair, 7th IEEE International Conference on Industrial Informatics, INDIN 2009, 24-26 June 2009, Cardiff, UK. <http://www.indin2009.com>
- 2009, Co-editor, Special Issue on Innovative Productions Machines and Systems (I*PROMS) in the Int. J. Computer Aided Engineering and Technology (IJCAET), Vol. 1, No. 2.
- 2009, Co-editor, Special Issue on Innovative Productions Machines and Systems (I*PROMS) in the International Journal of Systems Science, Volume 40 Issue 2.
- 2008, Chair of the Organising Committee for the 2nd Manufacturing in FP7 (EU's 7th Framework Programme) Conference, Cardiff, UK, 16-17 January 2008.
- 2008, Chair and facilitator of the half-day workshop on research skills during I*PROMS Researchers Symposium, MEC, Cardiff University, Cardiff, UK, 1-3 July 2008. <http://www.iproms.org>
- 2008, Co-editor, Special Issue on Innovative Productions Machines and Systems (I*PROMS), Proceedings of the I MECH E Part B Journal of Engineering Manufacture, Volume 222, Number 10, 2008.
- 2008, developed a robotic gymnast ([Robogymnast](#)) that simulates the swinging of human gymnasts on a high bar. The swinging of Robogymnast and balancing it at the upright position is currently under investigation by PhD students.

- 2007, Chair of the Organising Committee for the 1st Manufacturing in FP7 (EU's 7th Framework Programme) Conference, Cardiff, UK, 17-18 January 2007.
- 2007, member of a European delegation to Japan to promote collaborative research links between Europe and Japan, 26-27 March 2007, Tokyo.
- 2007, invited speaker at the Tampere Manufacturing Summit, Tampere, Finland, 6-7 June 2007.
- 2007, invited speaker and chair of the special session: Key Technologies for Innovative Manufacturing at the IMS Event on Strategies for Global Manufacturing, Zurich, Switzerland, 15-16 November 2007.
- 2006, chaired a special session on "Innovative Production Machines and Systems" at the 12th IFAC Symposium on Information Control Problems in Manufacturing, INCOM 2006, Saint-Etienne, France, 17-19 May 2006.
- 2006, invited speaker and chair of a special session on "Innovative Production Machines and Systems" at the 5th International Symposium on Intelligent Manufacturing Systems, IMS 2006, Sakarya, Turkey, 29-31 May 2006.
- 2006, chaired a special session on "Innovative Production Machines and Systems" at the 5th CIRP International Seminar on Intelligent Computation in Manufacturing Engineering, ICME'06, Ischia, Italy, 25-28 July 2006.
- 2005 - Sept. 2014, has been involved in Supervising PhD students researching on intelligent systems, robotics and control at Cardiff University, UK.
- 2005 - Present, chair of the Organising Committee and a technical referee for the International Virtual Conference on Intelligent Production Machines and Systems. <http://conference.iproms.org>
- 2005 – Sept. 2014, Group Member of UK Automatic Control Council (UKACC). <http://ukacc.group.shef.ac.uk/>
- July 2002, Chaired an invited session on "Advanced Robotics" at the 15th IFAC Congress, Barcelona, Spain, 21-26 July, 2002. ISBN: 008044184-X.
- July 2002, Chaired an invited session on "Sensory Robots" at the 15th IFAC Congress, Barcelona, Spain, 21-26 July, 2002. ISBN: 008044184-X.
- 2001 - 2002, Organised a series of seminars covering the range of expertise within the Manufacturing Engineering Centre, Cardiff University, UK.
- September 2001, member of the organising committee and a technical referee to the 17th National Conference on Manufacturing Research, Cardiff University, UK, 4-6 Sept. 2001.
- 1999 – 2004, lecturing Control Engineering and Automatic Control to 2nd and 3rd year students at Cardiff University, UK.
- Since 1999 has been involved in writing research and development (R&D) proposals for attracting external funds.
- Since 1999 has been involved in the review process for several conferences (national and international) and technical journals.
- 1998 – 1999, Supervised an MSc Project: Optimal Controller Design for a Triple Inverted Pendulum Based on Parameters Optimisation.
- 1996-1999, lecturing Electrical Engineering and Modern Control Systems courses to undergraduate and MSc students at Sudan University of Science and Technology, Sudan.
- August 1998, member of a consulting team for "Study of the Possibility of the Bidirectional Operation of Portsudan-Shagara Pipeline (850 Km): Rehabilitation and Introduction of Advanced-tech Control Systems."

Miscellaneous:

- Regular use of MS Windows, MS Office (Word, Excel, PowerPoint, etc.).
- Programming in C, C++.
- Regular use of Matlab and most of its accompanying toolboxes.
- Internet usage and homepage development.

Contact Details

Dr. Eldaw E. Eldukhri
College of Applied Engineering, Muzahimiyah Campus,
King Saud University,
Riyadh, Saudia Arabia

E-mail: eeldukhri@ksu.edu.sa

List of Publications

Journal papers:

- E. E. Eldukhri and M. I. Al-Rayif, A conditionally applied neural network algorithm for PAPR reduction without the use of a recovery process, ETRI Journal (2023), 1–11.
<https://doi.org/10.4218/etrij.2022-0470>
- Shaker S. Hasan, Somer M. Nacy, **Eldaw E. Eldukhri**, Haider Galil Kamil, Enass H. Flaieih, 2015, “Position Control of Linkage Underactuated Robotic Hand”, Journal of Control Theory and Informatics, Vol. 5, No. 3, pp 1-11. ISSN 2224-5774 (Paper) ISSN 2225-0492 (Online).
- **E E Eldukhri**, H G Kamil, 2015, “Optimisation of swing-up control parameters for a robot gymnast using the Bees Algorithm”, Journal of Intelligent Manufacturing, Vol. 26, No. 5, pp 1039-1047. DOI: 10.1007/s10845-013-0848-5. First published online on 22 November 2013.
- H A Ismail, M S Packianather, **E E Eldukhri**, R I Grosvenor, 2015, “Artificial Neural Network Modelling of the Robogymnast”, J. Engineering Applications of Artificial Intelligence. Submitted.
- Y Dadam, **E E Eldukhri**, 2012, “A function-based Fuzzy PID (F-FPID) Controller”, Int. J. of Scientific and Engineering Research, Issue 3, No. 9, pp 1-7. ISBN/ISSN: 2229-5518.
- **E E Eldukhri**, D T Pham, 2010, “Autonomous swing up control of a three-link robot gymnast”, Proc. IMechE, Part I: J. Systems and Control Engineering, Vol. 224, No. 7, pp. 825-833. The most downloaded paper in 2010.
- E Brousseau, **E E Eldukhri**, 2009, "Recent advances on key technologies for innovative manufacturing", Journal of Intelligent Manufacturing, DOI 10.1007/s10845-009-0328-0.
- D T Pham, A Haj Darwish, **E E Eldukhri**, 2009, “Optimisation of a fuzzy logic controller using the Bees Algorithm”, Int. J. Computer Aided Engineering and Technology, Vol. 1, No. 2, pp 250 – 264.
- D T Pham, M H Awadalla, **E E Eldukhri**, 2007, “Adaptive and cooperative mobile robots”, Proc. IMechE, Vol. 221, No. 3, Part I: J. Systems and Control Engineering, pp. 279-293.
- D T Pham, N S Gourashi, **E E Eldukhri**, 2007, “Automated Configuration of Gripper Systems for Assembly Tasks”, Proc. IMechE, Vol. 221, No. 11, Part B: Journal of Engineering Manufacture, pp. 1643 - 1649.
- G A Medrano-Cerda, **E E Eldukhri**, 1997, "Biped robot locomotion in the sagittal plane", *Trans. Inst. Measurement and Control*, volume 19, No. 1, pp 38-49.
- G A Medrano-Cerda, **E E Eldukhri**, M Cetin, 1995, "Balancing and Attitude Control of Double and Triple Inverted Pendulums", *Trans. Inst. Meas. Cont.*, UK, vol. 17, No. 3, pp 143-154.

Journal Editorials:

- D T Pham, **E E Eldukhri**, A J Soroka, 2011, Guest editorial, Special Issue on Innovative Productions Machines and Systems (I*PROMS) in the Int. J. Computer Aided Engineering and Technology (IJCAET), Vol. 3, No. 3/4.
- D T Pham, A J Soroka, **E E Eldukhri**, 2010, Guest Editorial, Special Issue on Production Automation and Control, Proceedings of the I MECH E Part I: J. Systems and Control Engineering, Vol. 224, No. 7, pp. i-ii.
- D T Pham, **E E Eldukhri**, A J Soroka, 2009, Guest editorial, Special Issue on Innovative Productions Machines and Systems (I*PROMS) in the Int. J. Computer Aided Engineering and Technology (IJCAET), Vol. 1, No. 2.
- D T Pham, A J Soroka, **E E Eldukhri**, 2009, Guest editorial, Special Issue on Innovative Productions Machines and Systems (I*PROMS) in the International Journal of Systems Science, Vol. 40 Issue 2.

- D T Pham, A J Soroka, **E E Eldukhri**, 2008, Guest Editorial, Proceedings of the I MECH E Part B Journal of Engineering Manufacture, Volume 222, Number 10, 2008 , pp. i-ii.
- D T Pham, B Grabot, **E E Eldukhri**, A J Soroka, V Zlatanov, M S Packianather, R Setchi, P T N Pham, A Thomas, Y Dadam, 2006, Editorial of the Special Issue on “Innovative Production Machines and Systems (I*PROMS)”, *J. Engineering Applications of Artificial Intelligence*, 19 (2006).
- D T Pham, **E E Eldukhri**, A J Soroka, V Zlatanov, M S Packianather, R Setchi, P T N Pham, A Thomas, Y dadam, 2006, “Introduction to the special section on Innovative Production Machines and Systems (I*PROMS)”, Editorial, *J. Engineering Applications of Artificial Intelligence*, 19 (2006), pp. 579-581.

Conference Proceedings (Co-editor):

- D T Pham, **E E Eldukhri**, A J Soroka, 2011, *Proceedings of the 6th Virtual International Conference on Innovative Production Machines and Systems*, D T Pham, E E Eldukhri and A J Soroka (eds), Lulu Publishing (www.lulu.com) (2011) ISBN/ISSN: 978-1-4710-5026-8.
- D T Pham, **E E Eldukhri**, A J Soroka, 2010, *Proceedings of the 5th Virtual International Conference on Intelligent Production Machines and Systems*, D T Pham, E E Eldukhri and A J Soroka (eds), Whittles Publishing (Scotland) (2010). ISBN: 978-184995-007-7.
- D T Pham, **E E Eldukhri**, A J Soroka, 2008, *Proceedings of the 4th Virtual International Conference on Intelligent Production Machines and Systems*, D T Pham, E E Eldukhri and A J Soroka (eds), Whittles Publishing (Scotland) (2008). ISBN 978-1904445-81-4.
- D T Pham, **E E Eldukhri**, A J Soroka, 2007, *Proceedings of the 3rd Virtual International Conference on Intelligent Production Machines and Systems*, D T Pham, E E Eldukhri and A J Soroka (eds), Whittles Publishing (Scotland) (2007). ISBN: 978-1904445-52-4.
- D T Pham, **E E Eldukhri**, A J Soroka, 2006, *Proceedings of the 2nd Virtual International Conference on Intelligent Production Machines and Systems*, D T Pham, E E Eldukhri and A J Soroka (eds), Elsevier (Oxford) (2006). ISBN-10: 0-08-045157-8.
- D T Pham, **E E Eldukhri**, A J Soroka, 2005, *Proceedings of the 1st Virtual International Conference on Intelligent Production Machines and Systems*, D T Pham, E E Eldukhri and A J Soroka (eds), Elsevier (Oxford) (2005), ISBN: 0-080-44730-9.

Conference papers:

- Hafizul A Ismail, Michael S Packianather, Roger I Grosvenor, **Eldaw E Eldhukhri**, 2015, “The Application of IWO in LQR Controller Design for the Robot Gymnast”, *Proc. of SAI Intelligent Systems Conference, London, UK, 10-11 November 2015*, pp 274-279.
- Braiwish, N.M. ; Anayi, F.J. ; Fahmy, A.A. ; **Eldukhri, E.E.**, 2015, “Design Optimization Comparison of BLPM Traction Motor using Bees and Genetic Algorithms” , *Proc. of IEEE International Conference on Industrial Technologies (ICIT), Seville, Spain, 17-19 March 2015*, pp 702 – 705.
- H G Kamil, **E E Eldhukhri**, M S Packianather, 2014, “Balancing Control of Robogymnast Based on Discrete-time Linear Quadratic Regulator Technique”, *Proc. of 2nd International Conference on Artificial Intelligence, Modelling and Simulation (AIMS2014), Madrid, Spain, 18-20 November 2014*, pp 137 - 142.
- Braiwish, N.M. ; Anayi, F.J. ; Fahmy, A.A. ; **Eldukhri, E.E.**, 2014, “Design Optimisation of Permanent Magnet Synchronous Motor for Electric Vehicles Traction using the Bees Algorithm” , *Proc. of IEEE International Universities' Power Engineering Conference (UPEC2014), Cluj-Napoca, Romania, 2-5 September 2014*, pp 1 – 5.

- Etumi, A.A. ; Anayi, F.J. ; Fahmy, A.A. ; **Eldukhri, E.E.**, 2014, "Auto-cross correlation coefficients used for detecting an internal fault in three phase transformer" , *Proc. of 2014 IEEE 16th International Conference on Harmonics and Quality of Power (ICHQP)*, Bucharest, Romania, 25-28 May 2014, pp 370 – 374.
- Etumi, A.A.A. ; Anayi, F.J. ; Fahmy, A.A. ; **Eldukhri, E.E.**, 2014, "New algorithm based on auto-correlation and cross-correlation scheme to detect the internal fault in single phase transformer", *Proc. of 12th IET International Conference on Developments in Power System Protection (DPSP 2014)*, Dubrovnik, Croatia, 13-16 May 2014, pp 1-5.
- H A Ismail, **E E Eldukhri**, M S Packianather, 2014, "Invasive Weed Optimization of Swing-Up Control Parameters for Robot Gymnast", *Proc. of 2014 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM)*, Besançon, France, 8-11 July 2014, pp 88-93.
- H G Kamil, **E E Eldukhri**, M S Packianather, 2012, "Optimisation of swing-up control parameters for a robot gymnast using the Bees Algorithm", *Proc. of The 8th International Symposium on Intelligent and Manufacturing Systems (IMS)*, Adrasan, Antalya, Turkey, 27-28 September 2012, pp 456-466.
- **E E Eldukhri**, D T Pham, A A Fahmy, N B Zlatov, 2010, " Autonomous swing up of a robot gymnast ", *Proceedings of the 5th Virtual International Conference on Innovative Production Machines and Systems*, D T Pham, E E Eldukhri and A J Soroka (eds), to appear in Whittles Publishing (Scotland) (2009), pp 298-304. ISBN: 978-184995-007-7.
- D T Pham, A A Fahmy, **E E Eldukhri**, 2008, "Fuzzy Hysteresis coordinator for Neuro-fuzzy Position Controlled Manipulators", *Proc. Of the 17th IFAC World Congress*, Seoul, Korea, 6-11 July 2008, pp. 9168-9173. ISBN: 978-1-1234-7890-2.
- D T Pham, A A Fahmy, **E E Eldukhri**, 2008, "Adaptive Fuzzy Neural Network for Inverse Modelling of Robot Manipulators", *Proc. of the 17th IFAC World Congress*, Seoul, Korea, 6-11 July 2008, pp. 5308-5313. ISBN: 978-1-1234-7890-2.
- D T Pham, A Haj Darwish, **E E Eldukhri**, S Otri, 2007, " Using the Bees Algorithm to tune a fuzzy logic controller for a robot gymnast", *Proceedings of the 3rd Virtual International Conference on Intelligent Production Machines and Systems*, D T Pham, E E Eldukhri and A J Soroka (eds), Whittles Publishing (Scotland) (2007). ISBN: 978-1904445-52-4.
- D T Pham, A A Fahmy, **E E Eldukhri**, 2007, " Inductive fuzzy neural network for multi-input multi-output dynamic systems modelling", *Proceedings of the 3rd Virtual International Conference on Intelligent Production Machines and Systems*, D T Pham, E E Eldukhri and A J Soroka (eds), Whittles Publishing (Scotland) (2007). ISBN: 978-1904445-52-4.
- D T Pham, M H Awadalla, **E E Eldukhri**, 2006, "Adaptive Knowledge-based Action Selection Architecture for Multiple Mobile Robots", *Proceedings of the 12th IFAC Symposium on Information Control Problems in Manufacturing, INCOM 2006*, Saint-Etienne, France, 17-19 May 2006.
- D T Pham, **E E Eldukhri**, A J Soroka, V Zlatanov, M S Packianather, R Setchi, P T N Pham, A Thomas, Y dadam, 2006, "The FP6 I*PROMS Network of Excellence: Integrating European Advanced Manufacturing Research", *Proceedings of the 5th International Symposium on Intelligent Manufacturing Systems, IMS 2006*, Sakarya, Turkey, 29-31 May 2006.
- D T Pham, N S Gourashi, **E E Eldukhri**, 2006, "Adaptive Robotic Gripper Configuration using Case-based Reasoning", *Proceedings of the 5th CIRP International Seminar on Intelligent Computation in Manufacturing Engineering – CIRP ICME'06*, Ischia, Italy, 25 – 28 July 2006, pp. 577- 582.
- D T Pham, A A Fahmy, **E E Eldukhri**, 2006, "Fuzzy and Neuro-fuzzy Based Co-operative Mobile Robots", *Proceedings of the 2nd Virtual International Conference on Intelligent Production Machines and Systems*, D T Pham, E E Eldukhri and A J Soroka (eds), Elsevier (Oxford) (2006). ISBN-10: 0-08-045157-8.

- D T Pham, **E E Eldukhri**, A J Soroka, V Zlatanov, M S Packianather, R Setchi, P T N Pham, A Thomas, Y dadam, 2005, "Networks of Excellence: New Strategies for Overcoming fragmentation in EU Manufacturing Research", *The 3rd European Conference on Intelligent Management Systems in Operations*, IMSIO 2005, Manchester, UK.
- D T Pham, N S Gourashi, **E E Eldukhri**, 2005, "Intelligent Conceptual Design of Robot Grippers for Assembly Tasks", *Proceedings of the 1st Virtual International Conference on Intelligent Production Machines and Systems*, D T Pham, E E Eldukhri and A J Soroka (eds), Elsevier (Oxford) (2005), pp 321-326, ISBN 0-080-44730-9.
- D T Pham, **E E Eldukhri**, A J Soroka, V Zlatanov, M S Packianather, R Setchi, P T N Pham, A Thomas, Y Dadam, 2005, "The EU FP6 I*PROMS Network of Excellence for Innovative Production Machines and Systems", *Proceedings of the 1st Virtual International Conference on Intelligent Production Machines and Systems*, D T Pham, E E Eldukhri and A J Soroka (eds), Elsevier (Oxford) (2005), pp 1-4, ISBN 0-080-44730-9.
- D T Pham, **E E Eldukhri**, A J Soroka, V Zlatanov, M S Packianather, R Setchi, P T N Pham, A Thomas, Y dadam, 2004, "Integrating EU Advanced Manufacturing Research", Keynote Paper, *Proceedings of the 2nd IEEE International Conference on Industrial Informatics INDIN'04*, pp 13-18, Berlin, Germany, 24-26 June, 2004. ISBN: 0-7803-8513-6.
- D T Pham, **E E Eldukhri**, A J Soroka, V Zlatanov, M S Packianather, R Setchi, P T N Pham, A Thomas, Y dadam, 2004, "Innovative Production Machines and Systems (I*PROMS): A Network of Excellence Funded by the EU Sixth Framework Programme", *Proceedings of the 2nd IEEE International Conference on Industrial Informatics INDIN'04*, pp 540-546, Berlin, Germany, 24-26 June, 2004. ISBN: 0-7803-8513-6.
- D T Pham, **E E Eldukhri**, A J Soroka, V Zlatanov, M S Packianather, R Setchi, P T N Pham, A Thomas, Y dadam, 2004, "Integrating EU Advanced Manufacturing Research: The FP6 I*PROMS Network of Excellence", *Proceedings of the 4th CIRP International Seminar on Intelligent Computation in Manufacturing Engineering – CIRP ICME'04*, pp 543 – 548, Sorrento, Italy, 30 June – 2 July 2004. ISBN: 88-87030-79-0.
- D T Pham, **E E Eldukhri**, N B Zlatov, S S Dimov, M S Packianather, D Bratanov, A Toth, G Fazekas, 2002, "Intelligent Robotised Physiotherapy Tested on an 8-DOF Mechatronic Arm", *Proc. of the 15th IFAC Congress*, Barcelona, Spain, 21-26 July 2002. ISBN:008044184-X.
- D T Pham, **E E Eldukhri**, S S Dimov, M S Packianather, N B Zlatov, A A Fahmy, Y M Shankir, 2001, "A Knowledge-Based System for Selection of Exercises for Robotised Physiotherapy", *Proceedings of the 8th IEEE International Conference on Mechatronics and Machine Vision Practice*, pp 85-88, Hong Kong, 27-29 August 2001. ISBN: 962-442-191-9.
- D T Pham, N B Zlatov, **E E Eldukhri**, S S Dimov, D Bratanov, T Dobrev, M S Packianather, A A Fahmy, 2001, "Modelling and Control of an 8-dof Mechatronic Limb", *Proceedings of the 8th IEEE International Conference on Mechatronics and Machine Vision Practice*, pp 314-317, Hong Kong, 27-29 August 2001. ISBN: 962-442-191-9.
- D T Pham, Y M Shankir, **E E Eldukhri**, 2001, "Fuzzy Model Reference Adaptive Control Using Reinforcement Learning", *Proceedings of the 8th IEEE International Conference on Mechatronics and Machine Vision Practice*, pp 102-106, Hong Kong, 27-29 August 2001. ISBN: 962-442-191-9.
- **E E Eldukhri**, 1997, "Computer Control of a Biped Walking Robot in the Sagittal Plane", *Proceedings 2nd International Conference for "Computational Aspects and Their Application in Electrical Engineering"*, 22-23 July, Philadelphia University, Amman, Jordan, Part B, pp 193-198.

- G A Medrano-Cerda, **E E Eldukhri**, 1996, “Biped robot locomotion along the sagittal plane”. *Proceedings of International Workshop on Advanced Robotics and Intelligent Machines*, University of Salford, Manchester, UK, March 1996.

Others:

- **E E Eldukhri**, 1996, 2nd place Prize for Salford Lady (the Biped Robot), International Exhibition of Robotics, Robotix-96, 15-16 March 1996, Glasgow, UK.
- **E E Eldukhri**, 1996, PhD Thesis: Design and Control of a Biped Walking Robot, Salford University, UK.
- **E E Eldukhri**, 1992, MSc Dissertation: On-line adaptive position control of a DC motor based on robust Controller Design, Salford University, UK.