Curriculum Vitae for Keith A Osman

This is a text section that can be added into the CV generated from Pure

Research and Innovation interests

Automatic identification and data capture technologies including 1D and 2D barcode, smartcards and radio frequency identification (RFID)
Smarts city technologies and data platforms
Artifical Neural Networks for indiustrial process modelling and control
Advanced monitoring and control systems for AC and MFDC resistance spot-welding of coated steels, structural aluminium alloys including weld-bonded automative structures

Teaching Interests

Control Engineering
Industrial process modelling and control including fuzzy logic, ANN, etc
Microprocessors and embedded systems

Knowledge Transfer interests

Knowledge transfer via KTP, consultancy and bespoke training for clients in public and private sector

Enterprise Interests

Contract research and consultancy projects related to 2D codes, RFID, industrial process monitoring

Qualifications

Industrial Automation, PhD, Real-time In-Process Detection of Cracking in Cold-Headed Fasteners, Council for National Academic Awards (CNAA)
1 Jan 1984 → 31 Dec 1986
Award Date: 1 Sept 1988

Engineering, BSc (Hons) Mechanical Engineering, University of Birmingham
1 Oct 1979 → 31 Jul 1982
Award Date: 1 Jul 1982

2024 Elsevier Pure Certification

2023 Elsevier Scopus Certification

Current Employment

Research Publications

E-education 3.0: Challenges and opportunities for the future of iCampuses

Thomas, A. M., Shah, H., Moore, P., Rayson, P., Wilcox, A. J., Osman, K., Evans, C., Chapman, C., Athwal, C., While, D., Pham, H. V. & Mount, S., 2012, *Proceedings - 2012 6th International Conference on Complex, Intelligent, and Software Intensive Systems, CISIS 2012.* p. 953-958 6 p. 6245716. (Proceedings - 2012 6th International Conference on Complex, Intelligent, and Software Intensive Systems, CISIS 2012).

A generic service oriented architectural model for pervasive applications: A case study in internet-based multiple robot control

Majedil, M. R., Osman, K. A. & Boyd, M., 2008, *2008 3rd International Conference on Pervasive Computing and Applications, ICPCA08.* p. 54-59 6 p. 4783647. (2008 3rd International Conference on Pervasive Computing and Applications, ICPCA08; vol. 1).

A novel architectural design model for enterprise systems: Evaluating enterprise resource planning system and enterprise application integration against service oriented architecture

Majedi, M. R. & Osman, K. A., 2008, *2008 3rd International Conference on Pervasive Computing and Applications, ICPCA08.* p. 116-121 6 p. 4783558. (2008 3rd International Conference on Pervasive Computing and Applications, ICPCA08; vol. 1).

A generic task partitioning framework for internet based control of multiple co-operatively working robotic devices
Majedi, M. R., Osman, K. A. & Wilcox, A. J., 2007, *2007 2nd International Conference on Pervasive Computing and Applications, ICPCA'07.* p. 451-456 6 p. 4365486. (2007 2nd International Conference on Pervasive Computing and Applications, ICPCA'07).

Assistive technology for the elderly: The homecare hub concept -user needs analysis
Ashford, R. L., Osman, K. A. & Oldacres, A., 2007, *Challenges for Assistive Technology. AAATE 07.* Eizmendi, G., Azkoitia, J. M. & Craddock, G. (eds.). p. 187-192 6 p. (Assistive Technology Research Series; vol. 20).

Homecare hub - A pervasive computing approach to integrating data for remote delivery of personal and social care
Osman, K. A., Ashford, R. L. & Oldacres, A., 2007, *2007 2nd International Conference on Pervasive Computing and Applications, ICPCA'07.* p. 348-353 6 p. 4365467. (2007 2nd International Conference on Pervasive Computing and Applications, ICPCA'07).

Using item-attendant information and communications technologies to improve supply chain visibility
Griffiths, J. L., Phelan, A., Osman, K. A. & Furness, A., 2007, *IET International Conference on Agile Manufacturing, ICAM 2007.* 528 CP ed. p. 172-180 9 p. (IET Conference Publications; no. 528 CP).

Developing traceability systems across the food supply chain: An overview
Furness, A. & Osman, K. A., Mar 2006, *Improving Traceability in Food Processing and Distribution.* Elsevier, p. 3-25 23 p.

Developing traceability systems across the supply chain
Furness, A. & Osman, K. A., Oct 2003, *Food Authenticity and Traceability.* Elsevier, p. 473-495 23 p.

Fuzzy constraint satisfaction approach to placement and routing of analogue ICs
Davies, P., Higginson, A. M. & Osman, K. A., 1999, p. 567-572. 6 p.

Investigation of techniques to optimize vehicle mission profiles to minimize energy consumed
Bissonauth, N. & Osman, K. A., 1999, p. 1015-1020. 6 p.

Use of modified radial basis function networks for time-scale analysis of non-stationary signals
Sharma, S., Osman, K. A. & Higginson, A. M., 1999, p. 631-636. 6 p.

Improving the efficiency of vehicle water-pump designs using genetic algorithms
Osman, K. A., Higginson, A. M. & Moore, J., 1998, In: Intelligent Engineering Systems Through Artificial Neural Networks. 1998, p. 291-295 5 p.

Feedforward control of remote gas pipeline pressure using artificial neural networks
Voss, A., Higginson, A. M. & Osman, K. A., 1997, p. 867-872. 6 p.

Fuzzy variable encoding and algorithm selection for automated placement and routing of analogue ICS
Davies, P. A., Higginson, A. M. & Osman, K. A., 1997, p. 891-896. 6 p.

Modelling of offtake heating in high pressure gas pipelines using artificial neural networks
Maher, N., Osman, K. A. & Higginson, A. M., 1997, p. 855-860. 6 p.

Modelling of shrinkage in high pressure gas pipelines using artificial neural networks
Maher, N., Osman, K. A. & Higginson, A. M., 1997, p. 873-878. 6 p.

Developments in characterization of resistance spot welding of aluminum
Hao, M., Osman, K. A., Boomer, D. R. & Newton, C. J., Jan 1996, In: Welding Journal (Miami, Fla). 75, 1, p. 1-s

On-line nugget expulsion detection for aluminium spot welding and weldbonding
Hao, M., Osman, K. A., Boomer, D. R., Newton, C. J. & Sheasby, P. G., 1996, In: SAE Technical Papers.

Optimised control of multiple power sources using genetic algorithms, neural networks and fuzzy logic
Osman, K. A. & Higginson, A. M., 1996, In: Intelligent Engineering Systems Through Artificial Neural Networks. 6, p. 1013-1018 6 p.

Optimising information transmission for data compression using feedforward neural networks
Whitrow, C., Osman, K. A. & Higginson, A. M., 1996, In: Intelligent Engineering Systems Through Artificial Neural Networks. 6, p. 971-976 6 p.

Output coding in function approximation applications: An empirical study of RBF and MLP performance
Osman, K. A. & Higginson, A. M., 1995, p. 215-220. 6 p.

Potential automotive applications of Artificial Neural Networks
Osman, K. A. & Higginson, A. M., 1995, p. 1007-1012. 6 p.

Monitoring of resistance spot-welding using multi-layer perceptrons
Osman, K. A., Higginson, A. M., Kelly, H. R., Newton, C. J., Browne, D. J. & Boomer, D. R., 1994, p. 1109-1114. 6 p.

Activities

Projects

Prizes

Awards