

Malik Haddad
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Employment

Research Fellow

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School of Mechanical & Design Engineering
University of Portsmouth
Portsmouth, United Kingdom
29 Apr 2019 → present

Malik J. Haddad was born in Amman, Jordan in 1984. He received a BSc in Electronic Engineerent research interests include decision making, especially multiple criteria decision making, assistive technologies, powered wheelchairs and obstacle avoidance. Dr Haddad is MIET and a Fellow of the Jordan Engineers Association.

Research outputs

Combining multiple criteria decision making with vector manipulation to decide on the direction for a powered wheelchair
Dr Malik Haddad, Professor David Sanders, Dr Alexander Gegov, Dr Mohamed Hassan Sayed, Dr Ya Huang & Dr Mo Al-Mosawi, 24 Aug 2019, *Proceedings of SAI Intelligent Systems Conference: IntelliSys 2019: Intelligent Systems and Applications*. Bi, Y., Bhatia, R. & Kapoor, S. (eds.). Springer, p. 680-693 14 p. (Advances in Intelligent Systems and Computing; vol. 1037).

Indoor location and collision feedback for a powered wheelchair system using machine learning

Dr Nils Bausch, Shilling, P., Professor David Sanders, Dr Malik Haddad, Ogechukwu Mercy Okonor & Dr Giles Tewkesbury, 24 Aug 2019, *IntelliSys 2019 Intelligent Systems and Applications: Proceedings of the 2019 Intelligent Systems Conference*. Bi, Y., Bhatia, R. & Kapoor, S. (eds.). Springer, Vol. 1. p. 721-739 19 p. (Advances in Intelligent Systems and Computing; vol. 1037).

Initial results from using Preference Ranking Organization METHods for Enrichment of Evaluations to help steer a powered wheelchair

Dr Malik Haddad, Professor David Sanders, Dr Giles Tewkesbury, Dr Alexander Gegov, Dr Mohamed Hassan Sayed & Favour Chidinma Ikwana, 24 Aug 2019, *IntelliSys 2019 Intelligent Systems and Applications: Proceedings of the 2019 Intelligent Systems Conference*. Bi, Y., Bhatia, R. & Kapoor, S. (eds.). Springer, Vol. 1. p. 648-661 14 p. (Advances in Intelligent Systems and Computing; vol. 1037).

Intelligent approach to minimizing power consumption in a cloud-based system collecting sensor data and monitoring the status of powered wheelchairs

Ogechukwu Mercy Okonor, Dr Alexander Gegov, Dr Mo Adda, Professor David Sanders, Dr Malik Haddad & Dr Giles Tewkesbury, 24 Aug 2019, *Proceedings of SAI Intelligent Systems Conference: IntelliSys 2019: Intelligent Systems and Applications*. Bi, Y., Bhatia, R. & Kapoor, S. (eds.). Springer, p. 694-710 17 p. (Advances in Intelligent Systems and Computing; vol. 1037).

Task programming methodology for powered wheelchairs

Dr Giles Tewkesbury, Professor David Sanders, Dr Malik Haddad, Dr Nils Bausch, Dr Alexander Gegov & Ogechukwu Mercy Okonor, 24 Aug 2019, *IntelliSys 2019 Intelligent Systems and Applications: Proceedings of the 2019 Intelligent Systems Conference*. Bi, Y., Bhatia, R. & Kapoor, S. (eds.). Springer, Vol. 1. p. 711-720 10 p. (Advances in Intelligent Systems and Computing; vol. 1037).

Selecting a robust decision making method to evaluate employee performance

Dr Malik Haddad, Professor David Sanders & Dr Nils Bausch, 14 Jun 2019, In : *International Journal of Management and Decision Making*. 18, 4, p. 333-351 19 p.

Selecting a discrete Multiple Criteria Decision Making method to decide on a corporate relocation

Dr Malik Haddad, Professor David Sanders & Dr Giles Tewkesbury, 25 May 2019, In : Archives of Business Research. 7, 5, p. 48-67

Selecting a best compromise direction for a powered wheelchair using PROMETHEE

Dr Malik Haddad & Professor David Sanders, 1 Feb 2019, In : IEEE Transactions on Neural Systems and Rehabilitation Engineering. 27, 2, p. 228-235 8 p.

A rule-based expert system to decide on direction and speed of a powered wheelchair

Professor David Sanders, Dr Alexander Gegov, Dr Malik Haddad, Ikwan, F., Wiltshire, D. & Tan, Y. C., Jan 2019, *Intelligent Systems and Applications: Proceedings of the 2018 Intelligent Systems Conference (IntelliSys) Volume 1*. Arai, K., Kapoor, S. & Bhatia, R. (eds.). Springer, p. 822-838 17 p. (Advances in Intelligent Systems and Computing; vol. 868).

Learning to make intelligent decisions using an Expert System for the intelligent selection of either PROMETHEE II or the Analytical Hierarchy Process

Dr Malik Haddad, Professor David Sanders, Dr Nils Bausch, Dr Giles Tewkesbury, Dr Alexander Gegov & Dr Mohamed Hassan Sayed, Jan 2019, *Intelligent Systems and Applications: Proceedings of the 2018 Intelligent Systems Conference (IntelliSys) Volume 1*. Arai, K., Kapoor, S. & Bhatia, R. (eds.). Springer, p. 1303-1316 (Advances in Intelligent Systems and Computing; vol. 868).

Making decisions about saving energy in compressed air systems using Ambient Intelligence and Artificial Intelligence

Professor David Sanders, Robinson, D. C., Dr Mohamed Hassan Sayed, Dr Malik Haddad, Dr Alexander Gegov & Ahmed, N., Jan 2019, *Intelligent Systems and Applications: Proceedings of the 2018 Intelligent Systems Conference (IntelliSys) Volume 2*. Arai, K., Kapoor, S. & Bhatia, R. (eds.). Springer, p. 1229-1236 (Advances in Intelligent Systems and Computing; vol. 869).

Selection of discrete multiple criteria decision making methods in the presence of risk and uncertainty

Dr Malik Haddad & Professor David Sanders, Nov 2018, In : Operational Research Perspectives. 5, p. 357-370 14 p.

A framework that uses sensitivity analysis to select multi criteria decision making methods

Dr Malik Haddad, 1 Dec 2017, In : Journal of Computing in Systems and Engineering. p. 413 - 419 7 p.

Recommending decision making methods for mobility problems

Dr Malik Haddad, 1 Nov 2017, In : Journal of intelligent mobility. p. 392 - 395 4 p.

Selection of a suitable MCDA method based on robustness of results and sensitivity analysis

Dr Malik Haddad, Professor David Sanders, Dr Giles Tewkesbury & Dr Nils Bausch, 21 Sep 2017, p. 64. 1 p.

Algorithm to apply the best worst method to systems engineering problems concerning customer satisfaction, cost and implementation

Dr Malik Haddad, 27 Mar 2017, In : Journal of Computing in Systems and Engineering. p. 380-388 9 p.

Activities

Chailey Heritage Clinical Services

Dr Malik Haddad (Visiting researcher)

12 Nov 2019 → 26 Nov 2019

IEEE SAI Intelligent Systems Conference 2019

Dr Malik Haddad (Chair)

6 Sep 2019

IEEE SAI Intelligent Systems Conference 2019

Dr Malik Haddad (Presented paper)

5 Sep 2019 → 6 Sep 2019

Chailey Heritage Clinical Services

Dr Malik Haddad (Visiting researcher)

17 Jun 2019 → 21 Jun 2019

IEEE Sponsored SAI Intelligent Systems Conference 2018

Dr Malik Haddad (Presented paper)

6 Sep 2018 → 7 Sep 2018

Euro Working Group on MCDA/M

Dr Malik Haddad (Visiting researcher)

21 Jul 2018 → 4 Aug 2018

86th Meeting of Euro Working Group on MCDA

Dr Malik Haddad (Participant)

21 Sep 2017 → 23 Sep 2017

Projects**An EPSRC Project for £581,954 to investigate "Using artificial intelligence to share control of a powered-wheelchair between a wheelchair user and an intelligent sensor system"**

Professor David Sanders, Dr Alexander Gegov & Dr Malik Haddad

1/11/18 → 1/11/22

Using Sensitivity Analysis to select discrete Multiple Criteria Decision Making methods for management and engineering

Dr Malik Haddad, Professor David Sanders, Dr Giles Tewkesbury & Dr Nils Bausch

10/10/16 → 10/10/19