Dr. Rodolfo García-Flores

Research Scientist

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SUMMARY

Over 10 years experience in Operations Research, data mining, simulation, and multiagent systems. Focusing on logistics, minimization of waste, and scheduling of operations for agricultural and mining supply chains.

EDUCATION

Bachelor of Engineering (Hons), Chemical Engineering
 National Autonomous University of Mexico (UNAM), Mexico City, Mexico

Doctor of Philosophy, Optimisation
The University of Leeds, Leeds, UK

EXPERIENCE

Research Scientist   January 2006 - Present
CSIRO Computational Informatics, Clayton, VIC.
- Expert in the area of Operations Research, especially related to supply chain optimisation, scheduling and network optimisation.
- Optimisation models applied to improve logistics of cattle in the northern states of Australia, in collaboration with the Department of Agriculture of Western Australia. Demonstrated that the construction of an abattoir in WA would produce additional value of over AU $715M.
- Optimisation of other agricultural supply chains: adding value to the supply chains of small cheese producers in South America, as part of a project sponsored by the Australian Aid Agency.
- Supply chain optimisation projects for the mining and chemical industries. Produced savings of over $100M in a rail scheduling project for a major mining company.

Associate Professor   January 2002-December 2005
School of Engineering, Autonomous University of Nuevo León (UANL), Monterrey, Mexico. Lectured in Operations Research and Statistics.

Data Analyst   September to December 2001
Vickers Laboratories Ltd, Pudsey, West Yorkshire, UK. Assisted the IT Department in inventory optimisation.

RELEVANT PUBLICATIONS

- García-Flores, R, Martins, R, Vieira de Souza Filho, O, González, M, Mattos, C, Rosenthal, A, Juliano, P. A novel facility and equipment selection model for whey utilisation. *Computers and Electronics in Agriculture*, 117:127-140, 2015.
- García-Flores, R, Higgins, A, Prestwidge, D., McFallan, S. Optimal location of spelling yards for the northern Australian beef supply chain. *Computers and Electronics in Agriculture*, 102:134-145, 2014.
- Singh, G, García-Flores, R, Ernst, A, Welgama, P. Medium-Term Rail Scheduling for an Iron Ore Mining Company. *Interfaces* 44(2):222-240, 2013.