

## **Curriculum Vitae – Dr Laszlo Nemes FTSE FIEAust CPeng**

### **Qualifications:**

Doctor Universitatis,	University of Heavy Industries, Miskolc, Hungary (Honorary D.Sc.)
Candidate of Sciences,	Computer Application in Manufacturing, Hungarian Academy of Sciences, Budapest, Hungary (Ph.D.)
Postgraduate Diploma,	Control Engineering, Technical University, Budapest, Hungary
Diploma in Engineering,	Mechanical Engineering, (Manufacturing Technology), Technical University of Heavy Industries, Miskolc, Hungary (M.Sc.)

### **Experience:**

- Consultant on designing and re-engineering enterprises: Enterprise Architectures, Business Process Modelling and Optimisation, Change Management, Concurrent Engineering,
- 20 years as Chief Research Scientist, CSIRO Manufacturing Science and Technology, managing the Complex Systems Integration research program with more than 50 staff working on enterprise integration, machine vision, autonomous robotics, signal diagnostics and process control (till 2007)
- Participated and played a leading role in the development of the technical focus of the 10 year, US\$5 billion IMS international research program.
- Member of the Steering Board and Technical Committee of the \$13 million international research program on Global Manufacturing. Partners are from Europe, USA, Japan, Canada and Australia.
- Member of the Board of Directors of the Cooperative Research Centre for Intelligent Manufacturing Systems and Technologies. (CRC – IMST)
- 10 years as Program Leader on Intelligent Manufacturing Systems in CSIRO Division of Manufacturing Technology.
- Managed the Enterprise Integration research program in the CRC -IMST.
- 15 years as head of research division of the Computer and Automation Institute of the Hungarian Academy of Sciences, Budapest. Responsible for departments CAD, CAM, Robotics and vision, diagnostics and measurements for manufacturing.
- 2 year research work at the Control Department of the Tokyo University of Technology, Tokyo, Japan.

### **Professional Membership:**

- Fellow of “Academy of Technological Sciences and Engineering”, Australia
- Fellow of “Institution of Engineers, Australia”,
- Past Chairman of the international Working Group of the Computer Integrated Manufacturing (International Federation of Information Processing)

### **Key Recent Achievements:**

- Identified new research directions and delivered winning proposals for competitive funding within CSIRO and for the Australian Government
- Initiated the Australian participation on the International Research Program on Intelligent Manufacturing Systems and Technologies and managed the preparation in the first two formative years
- Managed large CSIRO and international research programs
- Developed (together with Dr P. Bernus) the Generic Enterprise Reference Architecture and Methodology (GERAM) which has got world wide acceptance and became the basis of ISO 15704
- Identified the requirements and the available tools for the cooperative design for the internet and successfully tested in an international project with Japan

### **Research Areas:**

- Enterprise architecture and modelling techniques
- Computer integrated manufacturing
- Information control in manufacturing

### **Awards:**

- State Prize of Hungary
- Silver Core, International Federation of Information Processing
- Federation Medal, Australia

### **Publications :**

- 7 Books/monographs, over 100 refereed and invited papers, 27 lectures and public seminars, 6 patents.

### **Selected journals articles and book chapters:**

1. Mo J.P.T., Zhou M., Anticev J., Nemes L., Jones M., Hall W., (2006). "A study on the logistics and performance of a real 'virtual enterprise'", International Journal of Business Performance Management, 2006, Vol.8, Nos.2-3, pp.152-169
2. J.P.T. Mo, L. Nemes, (2010). "Issues Using EA for Merger and Acquisition", Chapter 9, "Coherency Management: Architecting the Enterprise for Alignment, Agility, and Assurance", edited by Gary Doucet, John Götze, Pallab Saha and Scott Bernard, pub. AuthorHouse, Chapter 9, ISBN 978-143899-60783 (hard cover), pp.235-262
3. J.P.T. Mo, L. Nemes (2009). "Architecture based engineering of enterprises with government involvement", Chapter 16, in "Advances in Government Enterprise Systems Architecture", edited by Dr. Pallab Saha, pub. Information Science Reference (IGI Global), ISBN 978-1-60566-068-4 (hard cover), ISBN 978-1-60566-069-1 (eBook), pp.371-391
4. Nemes L., Mo J.P.T., (2004). "Collaborative Networks in Australia - Challenges and Recommendations", Collaborative Networked Organizations - A research agenda for emerging business models, Camarinha-Matos, Luis M.; Afsarmanesh, Hamideh (Eds.), 2004, 346 p., Hardcover, Springer, ISBN: 1-4020-7823-4, pp.97-102
5. Mo J.P.T., (2003). "Case Study - Farley Remote Operations Support System", Chapter 21, Enterprise Integration Handbook, Ed. Bernus P., Nemes L., Schmidt G, Springer-Verlag, ISBN 3-540-00343-6, 2003, pp.739-756
6. Editor of book: Mo J.P.T., Nemes L., "Global Engineering, Manufacturing and Enterprise Networks", pub. Kluwer Academic Press, 2001, ISBN 0-7923-7358-8

### **A few representative conference papers (refereed)**

1. John Mo, Ron Beckett (Reinvention Network), Laszlo Nemes, Stuart Woodman, (2006). "Study of Information Communication Technology Profiles in Tooling Virtual Enterprise", PRO-VE'06 - 7th IFIP Working Conference on Virtual Enterprises, Helsinki, Finland, 25-27 Sept, 2006
2. Nemes, L., Mo, J.P.T. (2006). Untangling the Web of Applications - A Guide to Getting Started. International Conference on Enterprise Architecture for Governments. 21-22 February, Canberra, Australia
3. J.P.T. Mo, R.C. Beckett, L. Nemes, (2005). "Technology Infrastructure for Virtual Organisation of Toolmakers", 26-28 September, 2005, Collaborative Networks and Their Breeding Environments: IFIP TC5 WG 5.5 Sixth IFIP Working Conference on VIRTUAL ENTERPRISES, PRO-VE'05, Editors: Luis M. Camarinha-Matos, Hamideh Afsarmanesh, Angel Ortiz, Valencia, Spain, ISBN: 0-387-28259-9, pp.493-500
4. Zhou M. (Mingwei), Nemes L. (Laszlo), Anticev J. (Julia), Mo J.P.T. (John), (2005). "The Modelling and Operating of a Virtual Engineering Enterprise through Project Alliancing – An Industrial Case Study", International Manufacturing Leaders' Forum, (IMLF 2005), 27 February – 2 March, 2005, Paper No. BZ-0001243176
5. Mo J.P.T., Zhou M., Anticev J., Nemes L., (2003). "A Study on Coordination of a Large Project in a Virtual Enterprise", 4th IFIP Working Conference on Infrastructures for VIRTUAL ENTERPRISES (PRO-VE'03), Processes and Foundations for Virtual Organizations, edited by L. M. Camarinha-Matos and H. Afsarmanesh, 29-31 October 2003 at Lugano, Switzerland
6. Mo J.P.T., Nemes L., Zhou M., Anticev J., (2003). "Content Management System and Its Alignment to Business Processes", 7th IFAC Workshop on Intelligent Manufacturing Systems (IMS 2003), 6-8 April, 2003, Budapest, Hungary, pp.7-12
7. Zhou M., Williams A., Mo J.P.T., Nemes L., Hartel I., Sonderegger S., Kamio Y., (2002). "Modelling of the Information Roadmap of a Service Virtual Enterprise", VTT Symposium 224 – Global Engineering and Manufacturing Enterprise Networks GLOBEMEN, 9-10 December, 2002, Helsinki, Finland, pp.151-168
8. Hall W.P., Jones M., Zhou M., Anticev J., Zheng J., Mo J.P.T., Nemes L., (2002). "Document-based Knowledge Management in Global Engineering and Manufacturing Projects", VTT Symposium 224 – Global Engineering and Manufacturing Enterprise Networks GLOBEMEN, 9-10 December, 2002, Helsinki, Finland, pp.313-336
9. Zhou M., Mo J.P.T., Nemes L., (2002). "Knowledge Management in Bid Preparation for Global Engineering and Manufacturing Projects", Proceedings of 5th International Conference on Design of Information Infrastructure Systems for Manufacturing), 18-20 November, 2002, Osaka, Japan, pp.267-274
10. Mo J.P.T., Nemes L., (2002). "Achieving Successful After Sales Service and Support Results on a Global Basis", Proceedings of Conference on Gaining a Competitive Advantage Through After Sales Services and Support, 15-16 March, 2001 Sydney, Australia
11. Mo J.P.T., Nemes L., (1998). "Integrating Internet Technologies and ERP Systems to Anticipate Customer Needs", Manufacturing Strategies Conference, 27-29 October, 1998, Sydney, Australia

12. Mo J.P.T., Nemes L., Williams A.M., (1998). "Cost Effective Maintenance and Customer Support Using Web Technologies", 1998 International Maintenance Management Conference, 25-26 August, 1998, Sydney, Australia
13. Mo J.P.T., Nemes L., (1998). "Framework for automatic creation of remote operations support systems", IFIP TC5 WG5.3/5.7 Third International Conference on the Design of Information Infrastructure Systems for Manufacturing (DIISM '98), Ed. Mills J.J., Kimura F., Paper 3, May 18-20, 1998, Fort Worth, Texas, U.S.A., pp.93-104
14. Mo J.P.T., Nemes L., (1997). "A Knowledge Base Remote Diagnostic System", Preprint of IFAC International Symposium on Artificial Intelligence in Real-time Control (AIRC'97), 22-25 September, 1997, Kuala Lumpur, Malaysia, pp.541-546
15. Nemes L., Mo J.P.T., (1997). "Remote Operational Support to Reduce Costs of Customer Support", Computers in Manufacturing: IT Strategies for Achieving Best Practice in Manufacturing Management Conference, 4-5 August, 1997, Melbourne, Australia
16. Shinonome M., Nemes L., Zhou M., Mo J., Bernus P., Uppington G., (1997). "Project Enterprise", Proceedings of IMS Research Results Presentation, 10-11 September, 1997, Tokyo, Japan, Paper No. IMS9607, sponsored by Manufacturing Science and Technology Centre, Japan