

Curriculum Vitae - Dr Yigal Hoffner

Citizenship: British and Israeli.

Languages: Fluent in English, German and Hebrew; conversational French.

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Academic Education

PhD in Computer Science, Reading University, UK 1986: "The Design of a Reconfigurable Multiprocessor System and its use in the Solution of a Class of Numerical Problems".

BSc in Computer Science and Cybernetics (Honours), Reading University, UK 1980. The course included a mixture of hardware and software studies, logic, and system and control theory.

Academic Employment

2007-to date: **Shenkar College of Engineering and Design**, Senior Lecturer in the Software Engineering department.

2019-to date: **Academic College of Tel-Aviv Jaffa**, School of Computer Science, Lecturer of MSc course in Distributed Systems.

1984-1985: **Computational Sciences Research Group** at Reading University, UK: Post-Doctoral Research Fellow. Research and development work on parallel and multiprocessor systems including tuition and lecturing to undergraduate students.

Academic grants and awards

- **Shenkar Distinguished Lecturer Award 2017.**
- **Shenkar Distinguished Lecturer Award 2016.**
- **Research Fellow grant** - Computational Sciences Research Group, Reading University, UK, 1984-1985.

Industrial-Research & Development Experience

1996–2006: **IBM Research Laboratory**, Zurich, Switzerland: Research Staff Member (RSM). Within the Business Integration Technology team, I led the work on Web services negotiations and matchmaking. The group designed and developed the **Web Service Matchmaking Engine (WSME)** - a matchmaking engine and a set of tools that enables WS-Policy assertion and policy templates and instances to be defined and used to annotate WSDL documents that describe Web services and clients.

This work was transferred to an IBM development laboratory in 2006 and is now used for service selection in IBM's Service Policy Based Service Management Framework (SPSMF). The SPSMF is one part of the **SOA Policy Toolkit (SPKT)** - a set of tools for supporting SOA policy, especially service policy, in design time, deployment and runtime.

1998–2000: Technical leader of the **ESPRIT/IST CrossFlow project** (<http://doc.utwente.nl/19095/>). The project was concerned with the investigation and development of support for cross-organisational business processes and the management of virtual enterprises. The project involved 7 collaborating companies, universities and research institutes.

1986-1996: **ANSA - Advanced Networked Systems Architecture**, Cambridge, UK, Research consultant. ANSA (<http://www.oxfordreference.com/view/10.1093/oi/authority.20110803095352689>) was an industry-sponsored program of research and advanced development into the use of distributed systems technology to support application integration in enterprise-wide systems. The ANSA work was used as the foundation for most of the early CORBA standards.

Industrial Experience

1986: **ISTEL Ltd.**, Grosvenor House, Redditch, UK: Research consultant.

1980-1983: **Microprocessor Support and Education Unit**, Computer Centre, Reading University, UK: Research Assistant. The main work was on the design and construction of hardware and software for stand-alone microprocessor based data-acquisition and control systems, for academic as well as industrial use.

Industry grants and awards

- **IBM Second Plateau Invention (Patents) Achievement Award 2006.**
- **IBM Research Accomplishment in 2000 for Virtual Market Place project.**
- **IBM Share Option Award in 1998.**

List of Publications

Peer reviewed papers in professional journals

- [1] Hoffner, Y. and Smith, M. F. "[Communication Between Two Microprocessors Using Common Memory](#)", Microprocessors and Microsystems, vol. 6, no.6, August 1982.
- [2] Hoffner, Y., "[The Implementation of an Inexpensive Flexible Multiprocessor System](#)", Microprocessors and Microsystems, vol. 7, no. 3, April 1983.
- [3] Hoffner, Y., "[A Microprocessor-based Multiprocessor System Using Common Memory for Communication](#)", Journal of Microprocessor Applications, Academic Press, no. 6, 1983.
- [4] Smith, M.F, Hoffner, Y. and Seeley, M.A. "[Mapping High Level Syntax and Structure into Assembler Language](#)", IEEE Micro, vol. 5 no. 4, August 1985.
- [5] Beasley, M.D.R., Cameron, J., Gray, G., Hoffner, Y., Linden, R.V.D. & Thomas, G., "[Establishing Co-Operation in Federated Systems](#)", ICL Technical Journal, November 1994.
- [6] Field, S. and Hoffner Y. "[VIMP - A Virtual Market Place for Insurance Products](#)", EM - EC in the Insurance Industry / Converging Media, EM - Electronic Markets, Vol. 8, No. 4, 1998.
- [7] Hoffner Y., Facciorusso C., Field S. and Schade A., "[Distribution Issues in the Design and Implementation of a Virtual Market Place](#)", Computer Networks, The International Journal of Computer and Telecommunications Networking, North Holland, Volume 32, Number 6, pp. 717-730, May 2000.
- [8] Grefen P., Aberer K., Hoffner Y. and Ludwig H.; "[CrossFlow: Cross-Organisational Workflow Management in Dynamic Virtual Enterprises](#)", International Journal of Computer Systems Science Engineering: invited paper for special issue, vol 15, no. 5, Sept 2000.
- [9] Hoffner Y., Ludwig H., Grefen P. and Aberer K., "[CrossFlow: Integrated Workflow Management and Electronic Commerce](#)", ACM: Special Interest Group on Electronic Commerce, Vol. 2.1, Winter, 2001, <http://www.acm.org/sigecom/exchanges>
- [10] Hoffner Y., Field S., Grefen P. and Ludwig H., "[Contract-Driven Creation and Operation of Virtual Enterprises](#)", Computer Networks, The International Journal of Computer and Telecommunications Networking, North Holland, Volume 37, pp. 111-136, September 2001.
- [11] Simon Field and Yigal Hoffner, "[Web Services and Matchmaking](#)", International Journal of Networking and Virtual Organisations, IEL Interscience Publishers, Volume 1, Number 3, 2003.
- [12] S. Field and Y. Hoffner, "[Dynamic Contract Generation for Dynamic Business Relationships](#)", Chapter 10 in "Virtual Enterprise Integration: Technological and Organizational Perspectives", Book editors Goran D. Putnik and Maria M. Cunha, Idea Group Publishing, pp. 207-228, 2005.
- [13] Y. Hoffner and S. Field, "[Transforming Agreements into Contracts](#)", International Journal of Cooperative Information Systems, Vol. 14, No. 2 & 3, June/Sept. 2005, <http://www.worldscinet.com/ijcis/14/1402n03/S0218843005001134.html>

Books

- [1] Hoffner Y. and Field S., Chapter "[Dynamic Contract Generation for Dynamic Business Relationships](#)", in "Virtual Enterprise Integration: Technological and Organizational Perspectives", Editors G. Putnik and M. Cunha, IDEA Group Inc. 2004.
- [2] Hepp M. and Hoffner Y. (Eds.), Lecture Notes in Business Information Processing, "[E-Commerce and Web Technologies](#)", Lecture Notes in Business Information Processing (LNBIP), Volume 188, 2014.

Papers and Abstracts – Proceedings of Conference

- [1] Hoffner, Y., "[Monitoring and Management in the Advanced Networked Systems Architecture](#)", ESIGDIS Workshop on Distributed Systems Management, Imperial College, London, UK, 7-8 July 1992.
- [2] Hoffner, Y. and Statham, A. "[The Visualization of Distributed Systems](#)", Proceedings of the COMPUGRAPHICS 92: Second International Conference on Computational Graphics and Visualization Techniques conference, Lisbon, December 1992.

- [3] Hoffner, Y. "[The Management of Monitoring in Object-Based Federated Distributed Systems](#)", Third IFIP/IEEE International Symposium on Integrated Network Management, San Francisco, USA, 18-24 April 1993.
- [4] Hoffner, Y., "[Interoperability and Distributed Platform Design](#)", in "[Distributed Platforms](#)", Eds. Schill, A. et al, ICDP '96: IFIP/IEEE International Conference on Distributed Platforms, Dresden, Germany, February 27 - March 1, Chapman & Hall, London, 1996.
- [5] Hoffner, Y. and Crawford, B., "[Using Interception to Create Domains in Distributed Systems](#)", Joint International Conference on Open Distributed Processing (ICODP) and Distributed Platforms (ICDP), 27-30 May 1997 Toronto, Ontario, Canada.
- [6] Hoffner, Y. and Schade, A., "[Co-operation, Contracts, Contractual Match-Making and Binding](#)", 2nd International Enterprise Distributed Object Computing Workshop (EDOC '98), 3-5 November 1998, San-Diego, USA.
- [7] Field S., Facciorusso C., Hoffner Y., Schade A. and Stolze M. "[Design Criteria for a Virtual Market Place \(ViMP\)](#)", Research and Advanced Technology for Digital Libraries, Eds. Nikolaou C. and Stephanidis C. Lecture Notes in Computer Science 1513, Springer-Verlag, Berlin, 1998.
- [8] Hoffner Y. "[Supporting Contract Match-Making](#)", IEEE 9th International Workshop on Research Issues on Data Engineering, RIDE-VE'99, Sydney, Australia, March 23-24, 1999.
- [9] Grefen P. and Hoffner Y. "[CrossFlow - Cross Organisational Workflow Support for Virtual Organisations](#)", IEEE 9th International Workshop on Research Issues on Data Engineering, RIDE-VE'99, Sydney, Australia, March 23-24, 1999.
- [10] Hoffner Y., Facciorusso C., Field S. and Schade A., "[Distribution Issues in the Design and Implementation of a Virtual Market Place](#)", DAIS'99, Second IFIP WG 6.1 International Working Conference on Distributed Applications and Interoperable Systems, Chapman & Hall, 1999.
- [11] Hoffner Y. Ludwig H. Gulcu C. and Grefen P. "[An Architecture for Cross-Organisational Business Processes](#)", in Proceedings of the Second International Workshop on Advanced Issues of E-Commerce and Web-Based Information Systems (WECWIS), Milipitas, California, June 8-9, 2000.
- [12] Schade A., Facciorusso C., Field S. and Hoffner Y. "[Advanced Dynamic Property Evaluation for CORBA-based Electronic Markets](#)", in Proceedings of the Second International Workshop on Advanced Issues of E-Commerce and Web-Based Information Systems (WECWIS), Milipitas, California, June 8-9, 2000.
- [13] Ludwig H., Hoffner Y., "[CRAFT: A Framework for Integration Facilitation in Cross-Organisational Distributed Systems](#)", In Klöckner, K. (ed.): Proceedings of the 9th EUROMICRO workshop on Parallel and Distributed Processing (PDP'01). Mantova, Italy, February 7-9, 2001, pp. 317-326. IEEE Computer Society publications, Los Alamitos, 2001.
- [14] Ludwig H., Hoffner Y., "[The Role of Contract and Component Semantics in Dynamic E-Contract Enactment Configuration](#)". Proceedings of the 9th IFIP Workshop on Data Semantics (DS9), pp 26 - 40, Hong Kong, 2001.
- [15] Field S. and Hoffner Y. "[In Search of the Right Partner](#)", in Collaborative Business Ecosystems and Virtual Enterprises, PRO-VE'02, 3rd IFIP Working Conference on Infrastructures for Virtual Enterprises, Editor: Luis Camarinha-Matos, Kluwer Academic Publishers, May 2002.
- [16] Hoffner Y., Schade A., Facciorusso C. and Field S. "[Negotiation Protocol Characterisation and Mechanism for Virtual Markets and Enterprises](#)", in Collaborative Business Ecosystems and Virtual Enterprises, PRO-VE'02, 3rd IFIP Working Conference on Infrastructures for Virtual Enterprises, Editor: Luis Camarinha-Matos, Kluwer Academic Publishers, May 2002.
- [17] Facciorusso, C., Field, S., Hauser, R., Hoffner, Y., Humbel, R., Pawlitzek, R., Rjaibi, W. and Siminitz, C. "[A Web Services Matchmaking Engine for Web Services](#)", Proceedings of EC-Web 2003, DEXA Conference, 1-5 September 2003.
- [18] Hoffner Y., "[The e-Business on Demand Life Cycle](#)", PRO-VE'03, IFIP Working Conference on Virtual Enterprises, Lugano 29-30 September 2003.

[19] Hoffner Y., Field S. and C. Facciorusso, “[The Typed Domain – A Recipe For Creating Virtual Enterprises](#)”, PRO-VE'04, 5th IFIP Working Conference on Virtual Enterprises, Toulouse, France, 24-28 September 2004.

[20] Hoffner Y., Field S. and C. Facciorusso, “[Strong and Flexible Domain Typing for Dynamic E-Bus](#)”, The 8th IEEE International Enterprise Distributed Object Computing Conference (EDOC 2004). 20-24 September 2004 Monterey, California, USA.

[21] Hoffner Y. and Field S., “[Agreement # Contracts](#)”, Contract Architectures and Languages (CoALa 2004) Workshop, The 8th IEEE International Enterprise Distributed Object Computing Conference (EDOC 2004), 20-24 September 2004 Monterey, California, USA

Workshop Proceedings

H. Ludwig, Y. Hoffner, C. Bussler, M. Bichler (eds.): “[Proceedings of the ISDO'00: The CAiSE*00 Workshop on Infrastructures for Dynamic Business-to-Business Service Outsourcing](#)”. Stockholm, June 5-6, 2000.

Conference chairing and refereeing

Acting as a referee in several international conferences on web-services, B2B, Virtual markets.

Co-chair of the EC-Web 2014 conference, to be held (jointly with DEXA) in Munich from September 1-5, 2014.

Patents

[1] Method and Apparatus for Matching Provision Data with Request Data in a Trading System

Inventor: FACCIORUSSO CHRISTIAN [CH]; HOFFNER YIGAL [CH]; CHRISTOPHER EDWARD SHARP [GB]

Applicant: IBM [US]

EC: G06Q30/00A; G06Q30/00C4 IPC: G06F17/30; G06F17/30

Publication info: US2007233677 (A1) 2007-10-04

<http://www.freshpatents.com/Method-and-apparatus-for-matching-provision-data-with-request-data-in-a-trading-system-dt20071004ptan20070233677.php>

[2] Workflow system and method

Inventor: CHRISTIAN FACCIORUSSO [US] ; HOFFNER YIGAL [CH] ; SIMON FIELD [US]

Applicant: IBM [US]

EC: IPC: G06Q10/00; G06F17/30; G06Q10/00;

Publication info: CN1637764 (A) 2005-07-13

<http://www.wikipatents.com/jp/2005196768.html>

[3] Method and system for distributed workflow management

Inventor: GUELCUE CEKI; HOFFNER YIGAL; LUDWIG HEIKO

Applicant: IBM

EC: G06Q10/00F IPC: G06Q10/00; G06Q10/00; (IPC1-7): G06F17/60

Publication info: JP2004005550 (A) 2004-01-08

<http://www.wikipatents.com/jp/2004005550.html>

[4] Electronic transaction systems

Inventor: SCHADE ANDREAS [CH]; HOFFNER YIGAL [CH]; FACCIORUSSO CHRISTIAN [CH]; FIELD SIMON [CH]

Applicant: IBM [US]

EC: G06Q30/00A IPC: G06Q30/00; G06Q50/00; G06Q30/00;

Publication info: US2002007337 (A1) 2002-01-17

<http://www.wikipatents.com/jp/2001306873.html>

[5] Match-making in electronic trading systems

Inventor: FACCIORUSSO CHRISTIAN [CH]; HOFFNER YIGAL [CH]; FIELD SIMON [CH]

Applicant: IBM [US]

EC: G06Q30/00A IPC: G06Q30/00; G06Q30/00; (IPC1-7): G06F17/60

Publication info: EP1146450 (A1) 2001-10-17

<http://www.freepatentsonline.com/EP1146450.html?query=PN/EP1146450%20OR%20EP1146450&stemming=on>

[6] Handling unknown properties in virtual market places

Inventor: FACCIORUSSO CHRISTIAN [CH]; HOFFNER YIGAL [CH]; FIELD SIMON [CH];
ANDREAS SCAHDE [CH]

Applicant: IBM [US]

EC: G06Q30/00C IPC: G06Q30/00; G06Q30/00; (IPC1-7): G06F17/60;

Publication info: EP1059596 (A1) 2000-12-13

<http://gauss.ffii.org/PatentView/EP1059596>

[7] Policy-driven caching and resolution of dynamic properties in virtual market places

Inventor: FACCIORUSSO CHRISTIAN [CH]; HOFFNER YIGAL [CH]; FIELD SIMON [CH]

Applicant: IBM [US]

EC: G06Q30/00C IPC: G06Q30/00; G06Q30/00; (IPC1-7): G06F17/60

Publication info: EP1059595 (A1) 2000-12-13

<http://www.freepatentsonline.com/EP1059595A1.html>

[8] Method for trying to supply a potential customer with at least one selected product offer

Inventor: FACCIORUSSO CHRISTIAN [IT]; FIELD SIMON [GB]; HOFFNER YIGAL [CH];
ROBINSON MATTHEW [GB/CH]

Applicant: IBM [US]

EC: G06Q30/00A IPC: G06Q30/00; G06Q30/00; (IPC1-7): G06F17/60; (WO/2000/038090);
PCT/IB1999/001613

<http://www.wipo.int/pctdb/en/wo.jsp?wo=2000038090>