

RESUME

(As of July 31, 2010)

1. Personal Details

Surname: MANGE
Christian Name: Daniel
Date of Birth: July 19, 1940
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2. Educational Qualifications and Honours

2010: Honour member of the Communauté d'intérêts pour les transports publics, section Vaud (CITRAP VAUD).
2005: Honorary Professor of the Ecole Polytechnique fédérale de Lausanne (EPFL).
2004: Honour member of the Société vaudoise des sciences naturelles (SVSN).
1986: Laureate of the DENZLER prize, as a co-author of the *Traité d'électricité de l'Ecole polytechnique fédérale de Lausanne EPFL*.
1968: Ph.D. degree, EPFL, with a thesis devoted to *Algorithms and machines for the automatic design of logic systems* (with honours).
1964: Electrical engineer diploma, EPFL (with A. Stucky distinction).

3. Professional Qualifications

2006: General Co-Chairman, 2nd International Workshop on Biologically Inspired Approaches to Advanced Information Technology (Bio-ADIT 2006), Osaka.
2004: General Co-Chairman, 1st International Workshop on Biologically Inspired Approaches to Advanced Information Technology (Bio-ADIT 2004), Lausanne.
2003: Chairman, 5th International Workshop on Information Processing in Cells and Tissues (IPCAT 2003), Lausanne.
2002: Chairman, Turing Day, Lausanne.

- 2001: Program Co-Chairman, The 4th International Conference on Evolvable Systems: From Biology to Hardware (ICES 2001), Tokyo.
- 1998: General Chairman, 2nd International Conference on Evolvable Systems (ICES '98), Lausanne.
- 1997: General Chairman, Von Neumann Day, Lausanne.
- 1996: Program Co-Chairman, 1st International Conference on Evolvable Systems (ICES '96), Tsukuba, Japan.
- Past member of the Editorial Advisory Board of *Ecological Informatics*, Elsevier.
- Past member of the Scientific Board of the Geneva International Academic Network (GIAN).
- Co-founder, honour member and secretary of the board of the Communauté d'intérêts pour les transports publics, section Vaud (CITRAP VAUD).
- Member of the board of the Fondation Mémoires informatiques (MI).
- Member of the board of the Association des amis des bateaux à vapeur du Léman (ABVL).
- Member of the board of the Tramway du sud-ouest lausannois (TSOL).
- Past member of the board of the Prix de la Fondation Annaheim.
- Past member of the Advisory Board of *Genetic Programming and Evolvable Machines*, Kluwer Academic Publisher.
- Past member of the Assemblée Constituante du Canton de Vaud.
- Founder of the Groupe d'intérêt pour la bio-informatique (GIBI).
- Founder of the Groupe de réflexions et d'études ferroviaires (GREF).
- Founder of the Conférence des logiciens d'expression française (CLEF).
- Member of the Institute of Electrical and Electronics Engineers (IEEE).
- Member of the Association suisse des électriciens (ASE).
- Honour member of the Société vaudoise des sciences naturelles (SVSN).

4. Industrial Experience

- 1980-1994: Development and production, in cooperation with the firm SYPROLEC (Geneva, Switzerland), of "logidules" and "microdules" (plastic boxes containing an integrated circuit).
- 1971-1982: Member of the Direction board of the Centre romand de promotion du management (CRPM, Lausanne).
- 1971-1976: Member of the Direction board of GRANIT Inc., Lausanne.

5. University Appointments

- 2005: Honorary professor EPFL.
- 1969-2005: Full-time professor with the School of Computer and Communication Sciences, EPFL; director of the Logic Systems Laboratory (LSL).
- 1998: Honorary visiting professor, The University of York (GB).
- 1987: Visiting professor at Stanford University, Palo Alto (USA).
- 1981-1982, 1974: Head of the Electrical Engineering Department (EPFL).
- 1967-1968: Lecturer with the Electrical Engineering Department (EPFL).

6. Books and Manuals

- [L2] D. Mange, Analyse et synthèse des systèmes logiques. Lausanne: Chaire de systèmes logiques de l'Ecole polytechnique fédérale, 1972.
- [L3] D. Mange, Analyse et synthèse des systèmes logiques (Traité d'électricité: Vol. V). Lausanne: Presses polytechniques et universitaires romandes, 1992 (5^{ème} impression). Paris: Dunod, 1981.
- [L6] D. Mange, A. Stauffer, Travaux pratiques de systèmes logiques. Manuel d'utilisation des logidules. Lausanne: Presses polytechniques romandes, 1981.
- [L7] D. Mange, E. Sanchez, A. Stauffer, Systèmes logiques programmés. Lausanne: Presses polytechniques romandes, 1982.
- [L8] C. Bernard, D. Mange, A. Stauffer, Catalogue logidules, édition 1983. Lausanne: EPFL, Laboratoire de systèmes logiques, 1983.
- [L11] D. Mange, Analysis and Synthesis of Logic Systems. Norwood, MA: Artech House, 1986.
- [L15] D. Mange, Systèmes microprogrammés: une introduction au magique. Lausanne: Presses polytechniques et universitaires romandes, 1990.
- [L20] D. Mange, Microprogrammed Systems: An introduction to firmware theory. London: Chapman & Hall, 1992.
- [L21] D. Mange, A. Stauffer, Travaux pratiques de systèmes logiques et microprogrammés. Lausanne: EPFL, Laboratoire de systèmes logiques, 1993.
- [L22] C. Bernard, D. Mange, A. Stauffer, Catalogue logidules, édition 1994. Lausanne: EPFL, Laboratoire de systèmes logiques, 1994.
- [L23] D. Mange, A. Stauffer, Travaux pratiques de systèmes logiques et microprogrammés. Lausanne: EPFL, Laboratoire de systèmes logiques, 1994.
- [L28] D. Mange, M. Tomassini (eds), Bio-Inspired Computing Machines, Presses polytechniques et universitaires romandes, Lausanne, 1998.
- [L29] M. Sipper, D. Mange, A. Pérez-Urbe (eds), Evolvable Systems: From Biology to Hardware, 2nd International Conference, ICES 98, Proceedings, Lecture Notes in Computer Science 1478, Springer, Berlin, 1998.
- [L33] A. J. Ijspeert, D. Mange, M. Murata, S. Nishio (Eds.)
Bio-ADIT 2004: On-Conference Proceedings. Osaka University Forum 2004, Osaka, 2004.
- [L36] D. Mange
Informatique et biologie: une nouvelle épopée. Favre, Le Temps, Lausanne, 2005.

- [L37] *D. Mange*
Plan Rail 2050. Plaidoyer pour la vitesse. Collection "Le savoir suisse", Presses polytechniques et universitaires romandes, Lausanne, 2010.

7. Papers and Conference Proceedings

- [P1] D. Mange, "Diviseur de fréquence à très faible consommation de puissance", Bull. techn. Suisse romande, No 19, pp. 334-336, 19 septembre 1964.
- [P2] D. Mange, "Méthode générale de calcul de circuits logiques RCTL et résolution par calculatrice électronique", Mitteilungen AGEN, No 4, pp. 30-36, octobre 1965.
- [P2'] D. Mange, "Méthode générale de calcul de circuits logiques RTL et résolution par calculatrice numérique", Bull. ASE, No 4, pp. 158-159, 19 février 1966.
- [P3] D. Mange, "Circuits logiques à très faible consommation de puissance", Bull. techn. Suisse romande, No 8, pp. 141-146, 23 avril 1966.
- [P3'] D. Mange, "Circuits logiques à très faible consommation de puissance", Bull. ASE, No 23, pp. 1054, 12 novembre 1966.
- [P4] D. Mange, "Diviseurs de fréquence en anneau DCTL et TTL à faible consommation de puissance", Mitteilungen AGEN, No 6, pp. 9-16, novembre 1966.
- [P5] D. Mange, "Prime-Implicants Machine for Four Logic Variables (PIM4)", Electronics Letters, vol. 2, No 11, pp. 412-413, November 1966.
- [P6] D. Mange, "Equations logiques du flip-flop", Neue Technik, No A3, pp. 165-173, 1967.
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- [P10] D. Mange, "Synthèse des compteurs synchrones à l'aide du flip-flop le plus général", Mitteilungen AGEN, No 7, pp. 19-25, décembre 1967.
- [P11] D. Mange, "Equations de synthèse du flip-flop", Mitteilungen AGEN, No 7, pp. 26-30, décembre 1967.
- [P12] D. Mange, "Calculatrice spécialisée "SYCOM 4" pour la synthèse automatique des compteurs synchrones", Mitteilungen AGEN, No 7, pp. 31-38, décembre 1967.
- [P14] D. Mange, "Algorithmes et machines pour le calcul automatique de systèmes logiques", Thèse, Ecole polytechnique de l'Université de Lausanne, Lausanne, 1968.
- [P18] A. Stauffer, D. Mange, "Machine séquentielle synchronisée universelle à 4 variables logiques USYM 4", Systèmes logiques, No 1, pp. 7-15, novembre 1969.

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- [P34] D. Mange, "Machines spécialisées pour le calcul automatique de systèmes logiques", Colloque international. Systèmes logiques: conception et applications, Vol. 1, Bruxelles: Association Internationale pour le Calcul Analogique, 1969, pp. 3-25.
- [P36] A. Stauffer, D. Mange, "Machine séquentielle synchronisée universelle à 4 variables logiques USYM 4", Colloque international. Systèmes logiques: conception et applications, Vol. 2, Bruxelles: Association Internationale pour le Calcul Analogique, 1969, pp. 720-752.
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- [P53] J. Zahnd, D. Mange, "Réduction des tables d'états complètement définies", Systèmes logiques, No 5, pp. 287-304, octobre 1973.
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- [P125] D. Mange, "Wetware as a Bridge between Computer Engineering and Biology", Preliminary Proceedings, 2nd European Conference on Artificial Life, Brussels, May 24-26, pp. 658-667, 1993.
- [P126] D. Mange, "Life in Silico", 11th European Conference on Circuit Theory and Design (ECCTD '93), Davos, Aug. 30-Sept. 3, pp. 145-149, 1993.
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- [P137] *D. Mange, A. Stauffer*
Introduction to Embryonics: Towards New Self-repairing and Self-reproducing Hardware Based on Biological-like Properties, in "Artificial Life and Virtual Reality", N. Magnenat Thalmann and D. Thalmann, Eds., John Wiley, Chichester, England, 1994, pp. 61-72.
- [P138] *P. Marchal, C. Piguët, D. Mange, A. Stauffer, S. Durand*
Achieving von Neumann's Dream: Artificial Life on Silicon, Proceedings of the IEEE International Conference on Neural Networks, ICNN '94, Orlando, June 22-July 2, 1994, Vol. IV, pp. 2321-2326.
- [P139] *P. Marchal, C. Piguët, D. Mange, A. Stauffer, S. Durand*
Embryological Development on Silicon, Proceedings of the Fourth International Workshop on the Synthesis and Simulation of Living Systems, Artificial Life IV, MIT Press, Cambridge, Mass., July 6-8, 1994, pp. 365-370.
- [P140] *D. Mange, A. Stauffer, P. Marchal, C. Piguët*
Embryonics: Designing Programmable Circuits with Biological-like Properties, Proceedings of the 12th IASTED International Conference, Applied Informatics, Annecy, May 18-20, 1994, pp. 314-317.
- [P153] *D. Mange, S. Durand, E. Sanchez, A. Stauffer, G. Tempesti, P. Marchal, C. Piguët*
A New Paradigm for Developing Digital Systems Based on a Multi-Cellular Organization, "IEEE International Symposium on Circuits and Systems", ISCAS '95, Seattle, April 30-May 3, 1995, Vol. 3, pp. 2193-2196.

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- [P158] *P. Marchal, P. Nussbaum, C. Piguet, S. Durand, D. Mange, E. Sanchez, A. Stauffer, G. Tempesti*
Genomic Cellular Automata Transposed in Silicon: Experiments in Synthetic Life, "Information Processing in Cells and Tissues, IPCAT '95, International Workshop", Liverpool, September 6-8, 1995, pp. 1-14.
- [P159] *P. Marchal, D. Mange*
Vive l'informatique bio-inspirée!, "Polyrama", octobre 1995, pp. 18-20.
- [P160] *D. Mange, A. Stauffer*
Embryonique: une tentative pour jeter un pont entre la biologie et l'informatique, "Communication et circulation des informations, des idées et des personnes. Actes du 2ème Colloque Transfrontalier", Lausanne, 22-23 septembre 1994, Université de Lausanne, 1995, pp. 607-615.
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- [P165] *D. Mange*
Vie artificielle: doux rêve ou dure réalité? "Synergies", 1995, pp. 13-15.
- [P172] *P. Marchal, P. Nussbaum, C. Piguet, S. Durand, D. Mange, E. Sanchez, A. Stauffer, G. Tempesti*
Embryonics: The Birth of Synthetic Life, "Towards Evolvable Hardware", Springer-Verlag, Berlin, 1996, pp. 166-196.
- [P173] *D. Mange, M. Goeke, D. Madon, A. Stauffer, G. Tempesti, S. Durand*
Embryonics: A New Family of Coarse-Grained Field-Programmable Gate Array with Self-Repair and Self-Reproducing Properties, "Towards Evolvable Hardware", Springer-Verlag, Berlin, 1996, pp.197-220.
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Embryonics: A New Family of Coarse-Grained Field-Programmable Gate Array with Self-Repair and Self-Reproducing Properties, "Proceedings of ISCAS '96", IEEE, Vol. 4, 1996, pp. 25-28.
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Genomic Cellular Automata Transposed on Silicon: Experiments in Synthetic Life, "Computation in Cellular and Molecular Biological Systems", R. Cuthbertson, M. Holcombe, R. Paton (Eds), World Scientific, Singapore, 1996, pp. 223-235.

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