

Curriculum Vitae

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Position Professor, Vice President and Dean

Education

B.S. University of Tokyo, College of Engineering
Mathematical Engineering, 1969

M.S. University of Tokyo, College of Engineering
Mathematical Engineering, 1971

Ph.D Cornell University, College of Engineering
Operations Research, 1977

Employment

Central Research Institute of Electric Power Industry
Researcher, April, 1971 - August, 1980

Saitama University

Assistant Professor, September, 1980 - September, 1981

Associate Professor, October, 1981 - March, 1988

Professor, April, 1988 – September, 2001.

Dean, April, 2000 – September, 2001

National Graduate Institute for Policy Studies

Professor, October, 1998 - .

Dean, April, 2000 -

Vice President, June, 2003 -

List of Principal Publications

Articles

[1] T. Oyama, 1977; "On the Completion of Partial Latin Squares", Ph.D Thesis, Technical Report No.326, School of Operations Research and Industrial Engineering, Cornell University, Ithaca, New York, U.S.A.

[2] F.R. Giles, T. Oyama and L.E. Trotter, Jr., 1977; "On Completing Partial Latin Squares", Technical Report No.335, School of Operation Research and Industrial Engineering, Cornell University, Ithaca, New York, U.S.A., also appeared in the *Proceedings of the Eighth Southeastern Conference on Combinatorics, Graph Theory and Computing*, Louisiana State University, 1977.

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[5] T. Oyama, 1979; "On the computational complexity of combinatorial problems", *Communications of Operations Research*, Operations Research Society of Japan, Vol.24, No.7, pp.427-433 (in Japanese).

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[11] T. Oyama, 1983; "On the stability of Japan's energy system", *Research Series of Economic Research Institute*, Economic Planning Agency, No.40, pp.117-164 (in Japanese).

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approach", *Research Series of Economic Research Institute*, Economic Planning Agency, No.40, pp.232-266 (in Japanese).

[13] T. Oyama, 1983; "Applying Mathematical Programming to Measure Electricity Marginal Costs", *IEEE Transactions on Power Apparatus and Systems*, Vol.PAS-102, No.5, pp.1324-1330.

[14] T. Oyama, 1986; "A Mathematical Programming/Economic Equilibrium Model for the Quantitative Analysis of the Stability of Japan's Energy System", MIT EL 86-016WP, M.I.T., U.S.A.

[15] T. Oyama, 1987; "Mathematics of political district apportionment problems", *Communications of Operations Research*, Operations Research Society of Japan, Vol.32, No.5, pp.269-280 (in Japanese).

[16] T. Oyama, 1987; "Comparative analysis of apportionment methods applied to Japan's political constituencies", *Communications of Operations Research*, Operations Research Society of Japan, Vol.32, No.8, pp.551-561 (in Japanese).

[17] T. Oyama, 1987; "Theoretical Aspects of an Electricity Marginal Cost Model", *IEEE Transactions on Power Systems*, Vol.PWRS-2, No.2, pp.413-421.

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[19] T. Oyama, 1987; "On the Application of System Optimization Techniques", Electronic Data Processing for Government Information Activities, Bureau of Administrative Management, General Affairs Agency.

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[25] T. Oyama and A. Taguchi, 1992; "Shortest path counting problem and congestion of traffic road segments", *PAT(Perspectives on Advanced Technology Society) News*,

No.20, pp. 13-19(in Japanese).

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[31] T. Oyama, 1994; "International impacts of environmental tax --- investigation of the effects to the carbon leakage", Research report on international impacts of environmental tax (ed. T. Yakushiji), Association of Financial Economy, pp.81-91, pp.120-133 (in Japanese).

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residential area", Research on mathematical evaluation methods for gain and loss of concentration-diversification of city functions", (ed. M. Fushimi), Perspectives on Advanced Technology Society, Ministry of Education, pp. 21-32 (in Japanese).

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for the railway track maintenance planning”, *Proceedings of Civil Engineering Conference*, Civil Engineering Society, 22(1), pp.467-470 (in Japanese).

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[67] T. Oyama and H. Morohoshi, "A Quantitative Method for Evaluating Stable Connectedness of the Network-structured System", *Operations Research and its Applications, Proceedings of the Fourth International Symposium, ISORA'02*, Vol.4, No.1, pp.54-66, 2002.

[68] Ohuchi, M., M. Numata, T. Hiramoto and T. Oyama, 2001 : "Building a decision tree for estimating traffic accidents fatalities and lifesaving statistics reflecting emergency medical data", *Journal of the Japanese Council of Traffic Science*, Japanese Council of Traffic Science, Vol.1, No.1, pp.29-37 (in Japanese).

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[70] Ohuchi, M. and T. Oyama, 2003 : "Forecasting and evaluating the Risk of Terrorisms", *Communications of Operations Research*, Operations Research Society of Japan, Vol.48, No.7, pp.499-506 (in Japanese).

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[75] M. Miwa and T. Oyama, "All-integer Type Linear Programming Model Analyses for the Optimal Railway Track Maintenance Scheduling", OPSEARCH, Vol.41, No.3, Operational Research Society of India, pp.35-45, 2004.

Research Projects sponsored by Grant-in-Aide for Scientific Research by the Ministry of Education

1. Special Research on Environmental Sciences, "Comprehensive Evaluation and Investigation on the Environmental Policy", 1985 – 1984 (Research member).
2. Special Research on Energy, "Energy and Carbon Dioxide", 1983 – 1984 (Research member).
3. Designated Field Study, "Study on the mathematical Evaluation Methods for both Advantages and Disadvantages of the Concentration and Divergence of the Urban Functions", 1990 – 1992 (Research member).
4. Designated Field Study, "Perspectives on Advanced Technology Society : Practical Study on the Advantages and the Disadvantages of Concentration and Divergence of the Urban Functions", 1993 – 1994, 7.0 Million Yen, (Research member).
5. Basic Research (C), "Study on the Mathematical Problems Related with Election Systems", 1994 – 1995, 1.4 Million Yen, (Chief researcher).

6. Basic Research (C), "Study on the Applicability of Mathematical Models for Facility Location and Resource Allocation Problems", 1997 – 1998, 1.3 Million Yen, (Chief researcher).

7. Basic Research (B), "Study on the Operation of Urban Transportation System", 1994 – 1995, 8.1 Million Yen, (Research member).

8. International Academic Joint Research, "Japan-US Joint Research on the Risk Management System for the Social System during the Emergency Periods", 1997 – 1998, 4.2 Million Yen, (Chief researcher).

9. Operations Research Society of Japan 40th Anniversary Research Project Fund – Joint Research "Study on the Risk Management System for the Lifeline System with Network Structure", 1999 – 2000, 2.5 Million Yen, (Chief researcher).

10. Basic Research (B), "Quantitative and Mathematical Research on the Facility Location and the Transportation System in the Urban Area", 1999 – 2001, 8.0 Million Yen, (Research member).

11. Basic Research (B), "Management Scientific Research on the International Private Initiative Infrastructure Investment (BOT)", 1999 – 2001, (Research member).

12. Basic Research (C), "Basic Research on the Application of Mathematical Modeling Techniques for the Public System with Network Structure", 2000 – 2001, 1.9 Million Yen, (Chief researcher).

13. Basic Research (C), "Study on the Outsourcing of Research Development in the Manufacturing Industry in Japan", 1999 – 2001, (Research member).

14. Operations Research Society of Japan 40th Anniversary Research Project Fund "Integrated Operation : Resource Planning", 2000 – 2001, (Chief researcher).

15. Joint Research, "Deveoping a Track Maintenance Support System", Japan Railways East Japan Co. – Railway Technology Research Institute, 1998 – 2005.

16. Basic Research (B), "Interdisciplinary Basic Research on Building a Multidimensional Evaluation System for the Decision Making of Public Policies", 2002 – 2003, 13.8 Million Yen, (Chief researcher).

17. Basic Research (B), "Basic Research on the Evaluation of Robustness and its Improvement for the Social Infrastructure System in the Risk Management System", 2004 – 2006, 15.5 Million Yen, (Chief researcher).

Books

[1] H. Konno and H. Suzuki (ed.), 1982; *Seisukeikakuhou to Kumiawasesaitekika* (Integer Programming and Combinatorial Optimization), Nikka Giren Publishing Co., 242p (in Japanese, chapters 10 and 11).

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- [3] T. Oyama, 1989; *Arugorizumu* (Algorithm), Maruzen Publishing Co., 230p (in Japanese).
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- [6] T. Oyama (ed.), 1998; *Handbook of Public Policy OR* (Translation from *Operations Research and the Public Sector*, Elsevier Science), Asakura Shoten Publishing Co., 776p (in Japanese).
- [7] T. Oyama, 2002. *Risan Suugaku* (Discrete Mathematics), Science House Publishing Co., 262p (in Japanese).
- [8] T. Oyama and T. Sueyoshi, 2002; *Public Policy and OR*, Asakura Shoten Publishing Co., 271p (in Japanese).
- [9] T. Sugino (ed.), 2002; *Netto Jouhou Sekyurithi-* (Translation from Dorothy E. Denning, "*Information Warfare and Security*", Addison Wesley Longman, (Chapter 7).