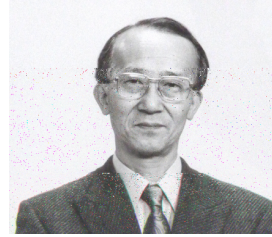


CURRICULUM VITAE

Yoshisuke Ueda

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Professor Emeritus, Kyoto University



EDUCATION

- 1959 Graduated from Kyoto University, B.E. degree in Electrical Engineering
1964 Completed the Graduate School of Engineering, Kyoto University
1965 D.E. Degree from the Faculty of Engineering, Kyoto University
 Doctoral Dissertation: *Some Problems in the Theory of Nonlinear Oscillations*

PROFESSIONAL CAREER

- 1964 - 1967 Instructor, Electrical Engineering, Kyoto University
1967 - 1971 Lecturer, Electrical Engineering, Kyoto University
1971 - 1985 Associate Professor, Electrical Engineering, Kyoto University
1985 - 2000 Professor, Electrical Engineering, Kyoto University
2000 - Professor Emeritus, Kyoto University
2000 - 2007 Professor, Complex Systems, Future University - Hakodate
2007.4 - Visiting Researcher, Faculty of Science and Engineering, Waseda University
2009.1.1-2014.12.31 Honorary Professor, University of Aberdeen (United Kingdom)
2010.5.10- Honorary Professor, Harbin Institute of Technology (China)

INSTITUTE CAREER

- 1982-1984 Chairman, The Professional Group on Nonlinear Problems,
 the Institute of Electronics, Information and Communication Engineers
1989-1992 Chairman, The Professional Group on Rotating Machines,
 Institute of Electrical Engineers of Japan
1991-1995 Member of Advisory Board, CHAOS, an Interdisciplinary Journal of Nonlinear Science (AIP)
1991- Member of the Editorial Board, the International Journal of Bifurcation and Chaos
1991-2009 Member of the Honorary Editors, the International Journal of Chaos, Solitons and Fractals
1992-1993 Member of the board of directors, Institute of Electrical Engineers of Japan
1993-1994 Vice-President, Institute of Electrical Engineers of Japan
1998-2001 Member of Advisory Board, CHAOS, an Interdisciplinary Journal of Nonlinear Science (AIP)
1999-2001 Vice President, Nonlinear Theory & Its Applications, Engineering Sciences Society, the IEICE

AWARDS

1. 1998 The Annual Prize, Japan Information-Culture Society
2. 2001 Fellow, The Institute of Electronics, Information and Communication Engineers

LIST OF PUBLICATIONS

Books:

1. Ueda, Y., *Some Problems in the Theory of Nonlinear Oscillations*, Nippon Printing and Publishing Co., Osaka, Japan (1968).
2. Ueda, Y., *The Road to Chaos*, Aerial Press, Santa Cruz, CA (1992).
3. Ueda, Y., Strange attractors and the origin of chaos, in *The Impact of Chaos on Science and Society*, edited by C. Grebogi and J. A. Yorke, 324-354, United Nations University Press (1997).
3. Abraham, R. H. and Y. Ueda, (eds.), *The Chaos Avant-Garde: Memories of the Early Days of Chaos Theory*, World Scientific, Singapore (2000).
4. Ueda, Y., *The Road to Chaos II*, 2nd ed. enlarged, Aerial Press, Santa Cruz, CA (2001).

Selected Papers:

1. C. Hayashi, H. Shibayama and Y. Ueda, Quasi-periodic oscillations in a self-oscillatory system with external force, *Proc. Symp. Nonlinear Oscillations (Intern. Union Theoret. Appl. Mech. Kiev)*, Vol. 1, pp. 495-509 (1963).
2. Hayashi, C. and Y. Ueda, Forced negative resistance oscillator, *Proc. Int. Conf. Microwaves, Circuit Theory and Information Theory, Tokyo*, Part 2, 107-108 (1964).
3. Hayashi, C., Y. Ueda and H. Kawakami, Solution of Duffing's equation using mapping concepts, *Proc. 4th Int. Conf. Nonlinear Oscillations*, Prague, pp. 25-40 (1968).
4. Hayashi, C., Y. Ueda and H. Kawakami, Periodic solutions of Duffing's equation with reference to doubly asymptotic solutions, *Proc. 5th Int. Conf. Nonlinear Oscillations, Kiev*, 2, 507-521 (1970).
5. Hayashi, C., Y. Ueda and H. Kawakami, Transformation theory as applied to the solutions of non-linear differential equations of the second order, *Int. J. Non-Linear Mech.* 4, 235-255 (1969).
6. Hayashi, C., Y. Ueda, N. Akamatsu and H. Itakura, On the behavior of self-oscillatory systems with external forcing, *Trans. IECE Japan*, 53-A, 150-158 (1970) (in Japanese); English Translation, *Electronics and Communications in Japan*, 31-39. Scripta, Silver Spring, MD.
7. Hayashi, C., Y. Ueda and H. Kawakami, Periodic solutions of Duffing's equation with reference to doubly asymptotic solutions, *Proc. Fifth Int. Conf. Nonlinear Oscillations, Kiev*, 2, 507-521 (1970).
8. Hayashi, C., Y. Ueda and N. Akamatsu, On Steady-state solutions of a nonlinear differential equation of the second order (in Japanese), *Research Report RIMS, Kyoto University*, No. 113, 1-27 (1971).
9. Hayashi, C. and Y. Ueda, Behavior of solutions for certain types of nonlinear differential equations of the second order, *Proc. 5th Int. Conf. Nonlinear Oscillations, Poznań*, Vol. 14, 341-351 (1973).
10. Ueda, Y., N. Akamatsu and C. Hayashi, Computer simulation of nonlinear ordinary differential equations and non-periodic oscillations, *Trans. IECE Japan* 56-A, 218-225 (1973): English translation, *Electronics and Communications in Japan*, 27-34, Scripta Publ. Co., Silver Spring, MD.
11. Hayashi, C. and Y. Ueda, The method of mapping as applied to the solution of nonlinear differential equations: with reference to doubly asymptotic solutions, *Proc. Seventh Int. Conf. Nonlinear Oscillations, Berlin*, 1-15 (1975).
12. Ueda, Y. and Y. Inoue, Forced oscillations in a nonlinear system with time delay, *Trans. IEE Japan* 95-A, 239-246 (1975): English translation, *Electrical Engineering in Japan*, 34-42, Scripta Publ. Co., Silver Spring, MD.
13. Inoue, I. and Y. Ueda, Two-frequency almost periodic oscillations in a nonlinear forced system with time delay, *Trans. IEE Japan* 96-A, 441-448 (1976): English translation, *Electrical Engineering in Japan*, 9-16, Scripta Publ. Co., Silver Spring, MD.
14. Ueda, Y., Random phenomena resulting from nonlinearity - In the system described by Duffing's equation, *Trans. IEE Japan* 98-A, 167-173 (1978) (in Japanese); English Translation, *Int. Jour. Non-Linear Mech.* 20, 481-491 (1985).

15. Ueda, Y., Randomly transitional phenomena in the system governed by Duffing's equation, *J. Statistical Phys.* **20**, 181-196 (1979).
16. Ueda, Y., Steady motions exhibited by Duffing's equation: a picture book of regular and chaotic motions, in *New Approaches to Nonlinear Problems in Dynamics*, edited by P. J. Holmes, pp. 311-322. SIAM, Philadelphia (1980).
17. Ueda, Y., Explosion of strange attractors exhibited by Duffing's equation, *Non-linear Dynamics (Annals of the New York Academy of Sciences)* **357**, 422-434 (1980).
18. Ueda, Y. and N. Akamatsu, Chaotically transitional phenomena in the forced negative-resistance oscillator, *Trans. IEEE CAS-28*, 217-224 (1981).
19. Ueda, Y., Self-excited oscillations and their bifurcations in systems described by non-linear differential-difference equations, *Proc. 24th Midwest Symposium on Circuits and Systems*, 549-553. University of New Mexico (1981).
20. Ogura, H., Y. Ueda and Y. Yoshida, Periodic stationarity of a chaotic motion in the system governed by Duffing's equation, *Prog. Theor. Phys.* **66**, 2280-2283 (1981).
21. Ueda, Y. and H. Ohta, Strange attractors in a system described by nonlinear differential-difference equation, *Chaos and Statistical Methods*, edited by Y. Kuramoto, 161-166, Springer-Verlag (1984).
22. Ueda, Y. and H. Ohta, Average power spectra of chaotic motions in a system described by nonlinear differential-difference equation, *Proc. ISCAS 85*, 179-182 (1985).
23. Ueda, Y., Survey of strange attractors and chaotically transitional phenomena in the system governed by Duffing's equation, *Complex and Distributed Systems: Analysis, Simulation and Control*, edited by S. G. Tzafestas and P. Borne, 173-180, Elsevier Science Publishers B.V. (1986).
24. Ueda, Y. and S. Yoshida, Attractor-basin phase portraits of the forced Duffing's oscillator, *Proc. Euro. Conf. Circuit Theory and Design, Paris*, Vol. 1, 281-286 (1987).
25. Ueda, Y., H. Nakajima, T. Hikihara and H. B. Stewart, Forced two-well potential Duffing's oscillator, *Dynamical Systems Approaches to Nonlinear Problems in Systems and Circuits*, edited by F. M. A. Salam and M. L. Levi, 128-137, SIAM (1988).
26. Thompson, J. M. T. and Y. Ueda, Basin boundary metamorphoses in the canonical escape equation, *Dynamics and Stability of Systems*, **4**, 285-294 (1989).
27. Ueda, Y., S. Yoshida, H. B. Stewart and J. M. T. Thompson, Basin explosions and escape phenomena in the twin-well Duffing oscillator: compound global bifurcations organizing behaviour, *Phil. Trans. R. Soc. Lond.* **332-A**, 169-186 (1990).
28. Ueda, Y., Survey of regular and chaotic phenomena in the forced Duffing oscillator, *Int. J. Chaos, Solitons and Fractals* **1**, 199-231 (1991).
29. Stewart, H. B. and Y. Ueda, Catastrophes with indeterminate outcome, *Proc R. Soc. Lond.* **432-A**, 113-123 (1991).
30. Stewart, H. B., J. M. T. Thompson, A. N. Lansbury and Y. Ueda, Generic patterns of bifurcation governing escape from potential wells, *Int. J. Bifurcation and Chaos* **1**, 265-267 (1991).
31. Ueda, Y., Strange attractors and the origin of chaos, *Int. J. Nonlinear Science Today*, Vol. 2, No. 2, 1-16 (1992).
33. Thompson, J. M. T., H. B. Stewart and Y. Ueda, Safe, explosive, and dangerous bifurcations in dissipative dynamical systems, *Physical Review E*, **49**, 1019-1027 (1994).
34. Ueda, Y., and H. Ohta and H. B. Stewart, Bifurcations in a system described by a nonlinear differential equation with delay, *CHAOS*, **4**, 75-83 (1994).
35. Stewart, H. B., J. M. T. Thompson, Y. Ueda and A. N. Lansbury, Optimal escape from potential wells: Patterns of regular and chaotic bifurcation, *Physica* **85-D**, 259-295 (1995).
36. Stewart, H. B., Y. Ueda, C. Grebogi and J. A. Yorke, Double Crises in Two-Parameter Dynamical Systems, *Physical Review Letters* **75**, 2478-2481 (1995).
37. Ueda, Y., Makoto Hirano, Hirofumi Ohta, and Ralph Abraham, Attractor and basin portraits of a double swing power system, *International Journal of Bifurcation and Chaos* **14**, 3135-3152 (2004).