



**Professor Raouf A. Ibrahim**

Raouf A. Ibrahim, Parametric Random Vibration, Dover Books on Engineering, 2008

See:

<https://www.sdpsnet.org/sdps/index.php/about-sdps/fellows/107-dr-raouf-a-ibrahim>

[https://www.researchgate.net/profile/Raouf\\_Ibrahim](https://www.researchgate.net/profile/Raouf_Ibrahim)

<https://scholar.google.com/citations?user=NRJIFTcAAAAJ&hl=en>

<https://www.amazon.com/R.-A.-Ibrahim/e/B001JSFIG8>

<http://arc.aiaa.org/doi/abs/10.2514/3.48712>

### **Biography:**

Dr. Raouf A. Ibrahim is a Professor of Mechanical Engineering at Wayne State University. He received his BSc and MSc in Aeronautical Engineering in 1963 and 1969, respectively, from Cairo University (Egypt). He received his PhD in Mechanical Engineering from the University of Edinburgh in 1974, and continued as a postdoctoral Fellow for two years. From 1963 through 1971, he worked as a research engineer at the Aerospace Research Center of rockets industry in Egypt. From 1976 through 1979 he was appointed as a Senior Research Specialist at Sakr Factory in Cairo and worked as an Adjunct Assistant Professor at Cairo University. In 1979, he moved to United States and worked at Shaker Research Corporation, Ballston Lake, NY, then in 1980 he joined Texas Tech University as Assistant, Associate, and then full Professor. While at Texas Tech He was a recipient of Outstanding Professor Award in Teaching in 1982, two Halliburton Awards of Excellence in 1983 and 1986, and Texas Tech Presidential Award in Research 1987. In 1987, he joined Wayne State University and continued his research activities in nonlinear random vibration, liquid sloshing dynamics, friction-induced vibration, and flutter of aeroelastic structures. In 1994 he was named the Arthur Carr Professor of Engineering and in 1995 he was awarded the Board of Governors Outstanding Professor Award, and in 2006 he received WSU Faculty Recognition Award. He has published more than ninety papers in refereed journals, and two research monographs entitled Parametric Random Vibration (Wiley, 1985), and Liquid Sloshing Dynamics: Theory and Applications (Cambridge University Press, 2005). He is a Fellow of ASME, the Society for Design and Process Science (SDPS), and the International Center of Vibro-Impact Systems.

### **Selected Publications:**

#### **Books:**

Raouf A. Ibrahim, *Vibro-Impact Dynamics: Modeling, Mapping and Applications* (Lecture Notes in Applied and Computational Mechanics), Springer, 2010

Raouf A. Ibrahim, *Parametric Random Vibration*, Dover Books on Engineering, 2008

Raouf A. Ibrahim, *Liquid Sloshing Dynamics: Theory and Applications*, Cambridge University Press, 2005

**Journal Articles:**

Ibrahim RA (1978), Parametric vibration, Part-III, current problems (1), *Shock and Vibration Digest*, 10(3), 41-57.

Ibrahim, R. A., "Structural Dynamics with Parameter Uncertainty". *Applied Mechanics Reviews*, Vol. 40, No. 3, 1987, pp. 309–328

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Abbas J, Ibrahim R, Gibson R (1993) Nonlinear flutter of orthotropic composite panel under aerodynamic heating. *AIAA J* 31(8):1478–1488

Ibrahim, R. A., 'Recent results in random vibrations of nonlinear mechanical systems', *Transactions of the ASME* 117, 1995, 222–233.

Beloiu D, Ibrahim R, Pettit C (2005) Influence of boundary conditions relaxation on panel flutter with compressive in-plane loads. *J Fluid Struct* 21(4):743–767

Raouf A. Ibrahim, Chapter 9 – "Nonlinear interaction under external and parametric excitations", in *Liquid Sloshing Dynamics* by Raouf A. Ibrahim, Cambridge University Press, 2005, pp 538-606

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