

Dr. ROBERT W. BASS

Adjunct Prof. of Systems Engineering, Florida Institute of Technology [PAX-NAS branch]
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Objective:

Employment compatible with my experience & background in applied mathematics, theoretical applied physics, nonlinear dynamics, orbital mechanics, theoretical systems engineering including attitude control and flight technology issues, GNC [guidance, navigation & control], DGPS [Carrier-Phase Integer Ambiguity], simulation & performance analyses, communications engineering, magnetostatics, electro-magneto-thermofluid-dynamics (EMTFD), and software engineering. Regarding the latter, I have experience in advanced automatic control and estimation (filtering) systems design, and digital signal-processing algorithm development, particularly that particularly that utilizing my experience with the **MATLAB** programming/simulation environment.

http://innoventek.com/Advanced_DSP_Algorithms081605.pdf

Experience:

- 1956-57 **RIAS (Research Institute for Advanced Study)** Div., Martin-Marietta Company, Staff Scientist [& founder, nonlinear mechanics activity]
- 1957-59 **Princeton Plasma Physics Lab** (On leave from RIAS), 2nd Lt. USAF Res
- 1959-60 **RIAS**, Senior Staff Scientist
- 1960-62 Aeronca Manufacturing Corp., first as *Chief Scientist* of Aerospace Division, then as *General Manager* of **Astro-Control Systems Div.**
- 1962-65 Hughes Aircraft Co., first as Senior Scientist, then as Head of *Advanced Studies Staff*, **Guidance & Controls Div.**
- 1965-66 *Associate Professor*, **Aerospace Engineering Sciences**, University of Colorado
- 1966-67 McDonnell-Douglas Co., Assistant to Chief Engineer, **Advance Flight Mechanics & Guidance**, R&D Directorate
- 1971-81 Professor, **Physics & Astronomy**, Brigham Young University [on sabbatical & leave, 1979-81]
- 1979-81 Manager, **System Analysis & Software Requirements**, AH-64 [Apache] Weaponization, Hughes Helicopters, Inc.
- 1981-86 Litton Industries, first in Guidance & Controls Div., then as *Chief Scientist* of **Advanced Systems Group (SDI)** of Data Systems Div.
- 1986-87 *Research Engineer III* [same salary as Full Prof.], Flight Systems Lab., **Electrical Engineering Dept.**, UCLA
- 1987-88 *Professor*, **Aero Engineering**, Air Academy, Egyptian Air Force, Cairo
- 1988-92 Signal Processing Dept, *Information Sciences*, **Science Center**, Rockwell International
- 1991-92 *Professor*, **Systems Engineering**, West Coast University [part time]
- 1992-98 *President*, Innoventek [website: <http://innoventek.com>]
- 1998 *Aerospace Engineer*, SAIC Inc.)
- 1998-2004 *Engineer III*, BAE SYSTEMS North America, Inc. [retired with annuity pension 4/14/04]
- 1998-2005 *Adjunct Prof. of Systems Engineering.*, Florida Institute of Technology (**F.I.T.**)
- 2005 *Senior Principal Engineer*, ARINC Engineering Services, California MD

Education:

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| B.A. (Physics) | Johns Hopkins University, 1950 |
| M.A. Oxon (Mathematics) | Oxford University, [<i>Rhodes Scholar</i>] 1952 |
| Ph.D. (Mathematics) | Johns Hopkins University, 1955 [Wintner, Hartman] |
| Post-Doctoral Fellow | Princeton University, 1955-56 [under Lefschetz] |

Professional Recognition:

Voted *Outstanding Young Scientist of 1960* by Maryland Academy of Sciences
Honored by American Control Conference (**ACC**) 2-Hour *Special Session*, June **1998**

<http://innoventek.com/BassHonorPapersACC1998.pdf>