

Seyed Hamid Jalali-Naini

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Date of Birth: 1970

Work Experience

- Associate Professor, Tarbiat Modares University (2009 to present)
- Member of the Board of Directors, Iranian Aerospace Society (March 2012 – March 2017)
- Consultant, Space Research Institute, Iranian Space Agency (2009 to 2012)
- Iranian Space Agency (2006-2009)
- Aerospace Research Institute - Ministry of Science, Research, and Tech (2000-2003)

Education Qualifications

- PhD, Aerospace Engineering, Sharif University of Technology, Tehran, IRAN (2004-2008)
- MS, Mechanical Engineering, University of Tehran, Tehran, IRAN (1994-1996)
- BS, Mechanical Engineering, Amirkabir University, Tehran, IRAN (1989-1994)

Research Interests

- Guidance and Control
- The History of Science and Culture

Courses Taught (graduate level)

- Guidance and Navigation 1& 2
- Spacecraft Dynamics and Control
- Spacecraft Attitude Control with On-Off Thrusters
- Flight Simulation
- Avionics
- Modern Control Theory
- Advanced Flight Dynamics

Recent Speeches

- The Sassanid Dynasty: The reasons of Fall, Tarbiat Modares University, Oct. 2015
- The History of Science of Ancient Greece, Tarbiat Modares University, March 2015
- Student Satellites: Cansats and Cubesats, Tarbiat Modares University, 2014

Selected Publication

1. Jalali-Naini, S.H., "Modern Explicit Guidance Law for High-Order Dynamics," *AIAA Journal of Guidance, Control, and Dynamics*, Vol. 27, No. 5, 2004, pp. 918-922.
2. Jalali-Naini, S.H., and Esfahanian, V., "Closed-Form Solution of Line-of-Sight Trajectory for Nonmaneuvering Targets," *AIAA Journal of Guidance, Control, and Dynamics*, Vol. 23, No. 2, 2000, pp. 365-366.
3. Jalali-Naini, S.H., "Generalized Line-of-Sight Guidance with Lead Angle," *Iranian Journal of Science and Technology*, Vol. 28, No. B4, 2004, pp. 489-493.
4. Jalali-Naini, S.H., and Pourtakdoust, S.H., "Explicit Minimum Fuel Intercept Strategy for High-Order Dynamics," *Iranian J. of Sci and Tech*, Vol. 34, No. B2, 2010, pp. 197-213.
5. Jalali-Naini, S.H., and Pourtakdoust, S.H., "On the Predicted Error of Atmospheric Guidance Laws," *Aircraft Engineering and Aerospace Technology*, Vol. 80, Issue 3, 2008, pp. 262-273.
6. Jalali-Naini, S.H., and Esfahanian, V., "Solution of Three-Dimensional Line-of-Sight Guidance with a Moving Tracker," *Scientia Iranica*, Vol. 11, Nos. 1&2, 2004, pp. 138-145.
7. Jalali-Naini, S.H., and Pourtakdoust, S.H., "A Modified Midcourse Guidance Law Based on Generalized Collision Course," *Journal of Aerospace Science and Technology*, Iranian Aerospace Society, Vol. 3, No. 3, 2006, pp. 113-123.
8. Jalali-Naini, S.H., "A Simple Explicit Guidance Scheme Based on Velocities-to-be-Gained," *J. of Aerospace Sci and Tech*, Iranian Aerospace Society, Vol. 8, No. 1, 2011, pp. 29-36.
9. Jalali-Naini, S.H., "Normalized Miss Distance Analysis of Single-Lag Optimal Guidance Law with Radome Effect, Saturation, and Fifth-Order Control System," *Scientia Iranica*, Transaction B, Vol. 21, No. 5, 2014, pp. 1683-1692.
10. Jalali-Naini, S.H., and Sajjadi, S.H. "First-Order Optimal Line-of-Sight Guidance for Stationary Targets," *Scientia Iranica*, Trans B, Vol. 23, No. 2, 2016, pp. 588-599.
11. Moghadaszadeh-Bazaz, S., Bohlouri, V., and Jalali-Naini, S.H., "Attitude Control of Rigid Satellite with Pulse-Width Pulse-Frequency Modulation Using Observer-Based Modified PID Controller," *Modares Mechanical Engineering*, Vol.16, No.8, pp.139-148, 2016 (in Persian).
12. Jalali-Naini, S.H., and Bohlouri, V. "Quasi-Normalized Static and Dynamic Analysis of Pulse-Width Pulse-Frequency Modulator in Presence of Input Noise," *Modares Mechanical Engineering*, Vol.16, No.12, pp.455-466, 2016 (in Persian).
13. Jalali-Naini, S.H., and Ahmadi Darani, S., "Preliminary Design of Spacecraft Attitude Control with Pulse-Width Pulse-Frequency Modulator for Rest-to-Rest Maneuvers," *J. of Aerospace Sci and Tech*, Iranian Aerospace Society, Vol. 11, No. 1, 2017, pp. 1-8.
14. Dehghani, M., and Jalali-Naini, S.H., "Evaluation of Conceptual Midcourse Guidance Laws for Long-Range Exoatmospheric Interceptors," *Journal of Aerospace Technology and Management*, Vol. 9, No. 1, 2017, pp. 101-115.
15. Dehghani, M., and Jalali-Naini, S.H., "Approximate Solution of Two-Body Problem Using Weighted Combination of Linear and Inversely Cubic Gravity Models," *Journal of the Brazilian Society of Mech Science and Eng*, Vol. 40, Issue 1, Jan 2018.
16. Bohluri, V., Khodamoradi, Z., and Jalali-Naini, S.H., "Spacecraft Attitude Control Using Model-Based Disturbance Feedback Control Strategy," *Journal of the Brazilian Society of Mech Science and Eng*, Vol. 40, Issue 12, Dec. 2018.
17. Bohluri, V., and Jalali-Naini, S.H., "Application of Reliability-Based Robust Optimization in Spacecraft Attitude Control with PWWF Modulator under Uncertainties," *Journal of the Brazilian Society of Mech Science and Eng*, Vol. 41, Issue 10, Oct. 2019.