RESUME

Dr. Sikha Hota

Assistant Professor, Dept of Aerospace Engineering, IIT-Kharagpur

Professional Experience (Starting from Last Job)

Sl. No	Employer	Type of Job	Duration	Date of Joining	Date Of Leaving
1	Indian Institute of Technology, Kharagpur	Assistant Professor	-	June 2015	Till date
2	CSIR-National Aerospace Laboratories, Bangalore	Scientist at the Control Law Team of LCA	1 year 2 months	April, 2014	June, 2015
3	Indian Institute of Science, Bangalore	Project Associate in Guidance, Control and Decision Systems Laboratory (GCDSL)	8 months	September 2013	April 2014

Academic Qualification

Sl No.	Examination/ Degree	Board/ University/ Institution	Important Subject Taken / Specialization	Year	Grade
1	Ph. D	Indian Institute of Science, Bangalore	Aerospace Engineering (Guidance, Control)	August, 2013	6.5/8
2	M. Tech	Jadavpur University	Electrical Engineering (Control)	July, 2007	8.69 %
3	B.E.	Indian Institute of Engineering, Science and Technology	Electrical Engineering	June, 2004	78.16%

List of Publications:

Journals:

1. S. Hota and D. Ghose, "Optimal trajectory planning for path convergence in 3D space", Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, Vol. 228, No. 5, 2013, pp. 766-780.

2. S. Hota and D. Ghose, "Optimal trajectory generation for convergence to a rectilinear path", Journal of Intelligent and Robotic Systems, Vol. 75, No. 2, 2013, pp. 223-242.

3. S. Hota and D. Ghose, "Time-optimal convergence to a rectilinear path in the presence of wind", Journal of Intelligent and Robotic Systems, Vol. 74, No. 3-4, 2013, pp. 791-815.

4. S. Hota and D. Ghose, "Optimal spatial path planning for an unmanned aerial vehicle", Journal of Aircraft, Vol. 51, No. 2, 2014, pp. 681-688.

5. S. Hota and D. Ghose, "Curvature-constrained trajectory generation for waypoint following", Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, Vol. 228, No. 11, 2013, pp.2066-2082.

6. S. Hota and D. Ghose, "Waypoint-Based Trajectory Planning of Fixed-Wing MAVs in 3D Space", under review.

Book Chapter

1. S. Hota and D. Ghose, "Rectilinear path following in 3D space", Trends in Intelligent Robotics (Eds. P. Vadakkepat and J.-H. Kim), Communications in Computer and Information Science, Springer-Verlag, Berlin, Vol. 103, 2010, pp. 210-217.

Conference Publications and Presentations

1. S. Hota and D. Ghose, "Trajectory planning of MAVs for waypoint following in 3D space", 9th International Conference on Intelligent Unmanned Systems", Jaipur, India, September 2013, paper ICIUS-2013-238.

2. S. Hota and D. Ghose, "Optimal transition trajectory for waypoint following", 2013 IEEE Multi-Conference on Systems and Control (MSC 2013)", Hyderabad, India, August 2013, pp. 1030-1035.

3. S. Hota and D. Ghose, "Minimum-time path of UAVs converging to a circular path in steady wind", Second International Conference on "Advances in Control and

Optimization of Dynamical Systems (ACODS)", Bangalore, February 2012, paper id-924.

4. S. Hota and D. Ghose, "Optimal path planning for an aerial vehicle in 3D space", 49th IEEE Conference on Decision and Control, Atlanta, USA, December 2010, pp. 4902-4907.

5. S. Hota and D. Ghose, "Optimal path planning for small UAVs in wind", 6th International Conference on Intelligent Unmanned Systems, Bali, Indonesia, November 2010, paper ICIUS-2010-0117.

6. S. Hota and D. Ghose, "Optimal geometrical path in 3D with curvature constraint", 2010 IEEE/RSJ International Conference on Intelligent Robots and Systems, Taipei, Taiwan, October, pp. 113-118.

7. S. Hota and D. Ghose, "A modified Dubins method for optimal path planning of a miniature air vehicle converging to a straight line path", Proc. of the American Control Conference, St. Louis, Missouri, USA, 10-12 June, 2009, pp. 2397-2402.

8. S. Hota and D. Ghose, "Optimal rectilinear path convergence of a miniature air vehicle using Pontryagin's maximum principle", Proceedings of the International Conference and Exhibition on Aerospace Engineering, Indian Institute of Science, Bangalore, India, May 2009, pp. 877-886.

9. S. Hota, S. Paul, T.K. Ghoshal, "Semiformal speci_cation of generic interlocking principles using stateow statechart", IEEE INDICON conference, Bangalore, India, September, 2007.

Workshop Paper

1. S. Hota and D. Ghose, "Time-optimal trajectory smoothing for UAVs in real-time", UKIERI Workshop on Unmanned Aircraft Sys. Tech., Bangalore, Dec. 2011, pp.34-37.

2. S. Hota and D. Ghose, "3D optimal path planning for UAVs in wind", Robust Control of Smart Autonomous Unmanned Air Vehicle under United Kingdom India Education and Research Initiative (UKIERI) program, December 2010, IIT Bombay, Mumbai.

3. S. Hota and D. Ghose, "Optimal path planning for a miniature air vehicle using a modified Dubins method", UKIERI Workshop on Robust Control of Smart Autonomous Unmanned Air Vehicle, Indian Institute of Science, Bangalore, August 2008, pp. 64-71.