

CURRICULUM VITAE

Personal Data

- Name: Ashraf H. Owis
- Nationality: Egyptian

Professional Record:

1. Instructor at Cairo University from November 1997 till May 2003.
2. Teaching assistant at Cairo University from June 2003 till October 2004.
3. Ph.D student at Milano-Bicocca University from November 2004 till December 2007.
4. Assistant Professor at Cairo University from May 2008 till March 2013.
5. Associate Professor at Cairo University from march 2013 till present.

Educational Record:

1. B.Sc. In Physics (very good with honor degree) Cairo University-Egypt, June, 1997
2. Diploma in Aerospace Science (Space Dynamics) Cairo University-Egypt, 1998
3. M.Sc. in Aerospace Science (Space Dynamics), Thesis entitled, Infinitesimal orbits around the libration points in the elliptic restricted three-body problem, Cairo University-Egypt, May, 2003
4. Ph.D.in Pure and Applied Mathematics, Thesis entitled, Feedback Optimal Control: Analysis and Applications in Astrodynamics, Milano-Bicocca University-Italy, December, 2007

Theses Supervision:

1. M.Sc. entitled"Attitude analysis of a rigid spacecraft"(degree awarded)
2. M.Sc. entitled"Magnetic field confinement and solar coronal mass ejection" (degree awarded)
3. M.Sc. entitled"Station keeping of communication satellites" (in progress)
4. Ph.D. entitled"Bifurcation analysis in the artificial satellite theory"(in progress)

Merits and Honours:

- Obtained the Egyptian government grant to study Ph.D. In Italy during 2004-2007
- Obtained the Egyptian government six-month post doc grant in Italy 2012-2013
- Obtained the prize of Cairo University for international publishing May, 2009

Membership:

1. Member of the American Astronautical Society (AAS) 2006
2. Member of the American Institute of Aeronautics and Astronautics (AIAA) 2007

Editorial Activity:

- Member of the editorial board of the Theory and Applications of Mathematics & Computer Science journal
- Reviewer of the Journal of Frontiers in Aerospace Engineering
- Reviewer of the International Journal of Advanced Computer Science and Applications

Meeting Organization:

1. The Chairman of the First international conference of the new trend and application of the GNSS that has been held at Cairo-Egypt, 1-4 September 2012.
2. The Chairman of the First international workshop of the new trend and application of space science that will be held at Cairo-Egypt, 2-5 February 2015.

Projects:

1. The coordinator and principal investigator of the Egyptian-Italian joint research project of Space and Remote Sensing Technologies 2008-2010 entitled "Station keeping of geostationary satellites with the non-

gravitational forces”

The results of the project are very useful for the national projects NILESAT1 and NILESAT2 through extending the operational life time of the satellites.

2. The coordinatore and principal investigator of the Egyptian-German joint research project GERF 2009-2011 entitled ”Feedback optimal control of formation flying satellites with J_2 ”In collaboration with Paderborn University and The German Aerospace Center(DLR)
The results of the project are very useful for the international space project Proba-3 That will be launched early 2010 (German-Swedish-French collaboration)
3. Research participant in the research project entitled ”Investigating the possible roles played by shrimps, freshwater crawfish and fish in the spread of Avian Influenza under the Egyptian territory by Cairo University 2009-2011
4. The coordinator and principal investigator of the US-Egyptian joint research project 2010-2011 entitled ”Reliable global navigation system using flower constellations” in collaboration with Texas A& M university.
5. The coordinator and principal investigator of the Short Term Fellowship research project 2013-2014 entitled Relativistic positioning and Navigation Systems in collaboration with Turin University university.
6. The coordinator and principal investigator of the space science capacity building project to fund three postdocs and 1 M.Sc.Student to spend two years in US during 2013-2015 funded by USAID within the framework of Cairo initiative.

Participation in Meetings:

1. IV JORNADES DINTRODUCCI ALS SISTEMES DINMICS (JISD2005) Barcelona-Spain, June 27- July 1, 2005
2. The Fourth International Meeting on Celestial Mechanics (CELMEC IV), Vitirbo-Italy, 11-16 September, 2005
3. Developing and Extending Einsteins Ideas, Cairo, Egypt, 19-21 December, 2005
4. Third DANCEsWinter School (RTNS 2006), Gijon, Spain, 6-10 February, 2006
5. Actual Problems in Celestial Mechanics and Dynamical Astronomy Workshop, Cluj-Napoca, Romania, 25-27 May, 2006
6. Carles Simo Fest, SAgaro, Spain, 29 May-3 June, 2006

7. IAU XXVIth General Assembly, Prague-Czech, 14-18 August, 2006
8. School of Optimization and Control, Castro Urdiales, Cantabria, Spain, 28 August-8 September, 2006
9. Fourth DANCEs Winter School (RTNS 2007), Granada, Spain, 5-9 February, 2007
10. 38th Annual Meeting of AAS of the Division on Dynamical Astronomy, Ann Arbor, Michigan, USA, 6-10 May, 2007
11. 12th International Conference on Aerospace Sciences and Aviation Technology, Cairo, Egypt, 28-31 May, 2007
12. X Jornadas de Trabajo en Mecanica Celeste, Bellaterra, Spain, 5-7 September, 2007
13. Sixth DANCEs Winter School (RTNS 2009), Carmona, Spain, 26-30 January, 2009
14. School of Satellite Navigation Science and Technology for Africa 23th March - 9th April, 2009.
15. Seventh DANCEs Winter School (RTNS 2010), Segovia, Spain, 26-30 January, 2010.
16. School of advanced mathematics, Tripoli- Lebanon, 7-17April, 2010.
17. New trend and Applications in Astrodynamics VI New York USA 6-8 June, 2011.
18. School and Conference on Computational Methods in Dynamics ICT-PIItaly 20th June-9th July, 2011.
19. KAUST-CIMPA School in Applied Mathematics on Uncertainty Quantification KSA, 4-12 January, 2012.
20. CIMPA-UNESCO-MESR-MICINN-LEBANON research School in Sub-Riemannian Geometry Beirut-Lebanon 30 January -9 February 2012
21. 1st IAA Conference on Dynamics and Control of Space Systems, Porto -Portugal 19-21 March 2012
22. CIMPA-ICTP-UNESCO-MICINN-SENEGAL research School in Structures Geometriques et Theorie du Controle Dakar- Senegal, 7-18 May 2012
23. ICNPAA 2012 Congress Vienna-Austria 10-14 July 2012
24. The Chairman of the First international conference of the new trend and application of the GNSS That has been held at Cairo-Egypt, 1-4 September 2012.
25. First AstroNet-II Training School Astrodynamics of natural and artificial satellites: from regular to chaotic motion Rome Italy 13-17 January 2013 .
26. 4th Elgersburg Winter school, Elgersburg, Germany, March 11 - March

17, 2012,

26. CIRM School STOCORE ,Stochastic Control for the Management of Renewable Energies, Marseille France 8-12 April 2013

Publications:

Journal Article

1. Ashraf Hamdy, Mostafa K. Ahmed, Mohamad Radwan, and Fawzy Ahmed Abd El-Salam Infinitesimal Orbits around the Libration Points in the Elliptic Restricted Three Body Problem Earth Moon and Planets Vol. 93, pp. 261-273, 2003
2. F. Topputo, A. Owis, and F. Bernelli-Zazzera Analytical Solution of the Feedback Optimal Control in Low-Thrust Transfers Aerotecnica Missile e Spazio, Vol. 86, pp. 185-194, 2007
3. F. Topputo, A. Owis, F. Bernelli-Zazzera Solution of a Class of Optimal Feedback Control Problems Automatic Control in Aerospace Vol. 1, pp. 1-7, 2008
4. F. Topputo, A. Owis, and F. Bernelli-Zazzera Analytical Solution of the Feedback Optimal Control for Radially Accelerated Orbits Journal of Guidance, Control and Dynamics Vol. 31, No. 5, pp. 1352-1359, 2008
5. Ashraf Owis, Francesco Topputo, and Franco Bernelli-Zazzera Radially Accelerated Feedback Orbits in Central Gravity Field with Linear Drag Celestial Mechanics and Dynamical Astronomy Vol. 103, No.1, pp. 1-16, 2009
6. Ashraf H. Owis, Hani M. Mohammed, Hany Dwidar, and Daniele Mortari GPS Satellite Range and Relative Velocity Computation Theory and Applications of Mathematics & Computer Science, Vol.2 No1, pp. 53-60, 2012
7. Daniele Mortari, Jeremy J. Davis, Ashraf Owis and H. Dwidar Reliable Global Navigation System using Flower Constellation in International Journal of Advanced Computer Science and Applications Volume 4, Issue 2, pp. 260-266, 2013
8. Hani M. Mahmoud, Mostafa K. Ahmed, Ashraf Owis and H. Dwidar Analytical Solution of the Perturbed Orbit-Attitude Motion of a Charged Spacecraft in the Geomagnetic Field International Journal of Advanced Computer Science and Applications Volume 4, Issue 3, pp. 272-286, 2013
9. Ashraf H.Owis Feedback Optimal Control of Low-thrust Orbit Transfer in Central Gravity Field International Journal of Advanced Computer Science and Applications Volume 4, Issue 4, pp. 158-162, 2013

10. Ashraf H. Owis Satellite Constellation Reconfiguration Using the Approximating Sequence Riccati Equations Theory and Applications of Mathematics & Computer Science, Vol.3 No1, pp. 99-106, 2013
11. Hani R. Dwidar and Ashraf H. Owis Relative Motion of Formation Flying with Elliptical Reference Orbit International Journal of Advanced Research in Artificial Intelligence, Vol. 2, Issue 6, PP. 80-87, 2013
12. Ashraf H. Owis Solving the Nonlinear Feedback Optimal Control Problem of Satellite Formation Journal of Nonlinear Studies Vol.20, Issue 3, pp. 389-400, 2013.
13. Ashraf H. Owis Orbit Design of Next-Generation Earth-Observation Satellite for the Egyptian Territories is accepted for publication in the International Journal of Engineering Research and Applications.
14. Ashraf H. Owis Flight Control System of Commercial Airplanes is accepted for publication in the Journal of Engineering and Science.
15. Ashraf H. Owis and Morsi A. Amer Satellite Formation Control Using The Approximating Sequence Riccati Equations Theory and Applications of Mathematics & Computer Science, Vol.3 No2, pp. 103-113, 2013

Conference Proceedings

1. Ashraf H. Owis, F. Topputo, and F. Bernelli-Zazzera Feedback Optimal Control in Low-Thrust Interplanetary Trajectory Design with Drag the proceeding of the 38th Annual Meeting of AAS of the Division on Dynamical Astronomy, Ann Arbor, Michigan-USA, 6-10 May, 2007
2. Ashraf H. Owis, F. Topputo, and F. Bernelli-Zazzera Feedback Optimal Control in Low-Thrust Interplanetary Trajectory Design the proceeding of the 12th International Conference on Aerospace Sciences and Aviation Technology, Cairo-Egypt, 29-31 May, 2007
3. Ashraf Owis Feedback Optimal Control in Low Thrust Earth Mars Orbit Transfer the proceeding of The 38th COSPAR Scientific Assembly, Bremen, Germany 18-25 July, 2010
4. Ashraf H. Owis and Hani R. Dwidar Feedback Optimal Control of Relative Motion for Elliptical Reference Orbit of Sun-Facing Formation Flying New trend and Applications in Astrodynamics VI New York USA 6-8 June, 2011
5. Ashraf H. Owis, Hani M. Mohammed, Hany Dwidar, and Daniele Mortari Accurate Doppler Shift Computation of an Artificial Satellite Un-

der Perturbation the First international conference of the new trend

Computer skills:

1. worked with several operating systems Such as windows, Linux and Macintosh
2. worked with several writing packages Such as scientific work place and Latex
3. Expertise of Programming Languages like Matlab

Languages:

1. Arabic (mother tongue)
2. English (good command)
3. Italian (fair)
4. French and German (basic)