

Ahmed Abdelghany, Ph.D.

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Biography

Dr. Ahmed Abdelghany is an associate professor in the college of Business, Embry-Riddle Aeronautical University, since January 2006. Prior to that Dr. Abdelghany was an assistant professor at the Department of Civil and Environmental Engineering, University of Alaska Fairbanks. In addition, he worked for several years as analyst/senior analyst within the information services division of United Airlines, Chicago. Dr. Abdelghany has a doctorate degree from the University of Texas at Austin in Civil Engineering; Transportation Systems (2001). He is the author of the book titled Modeling Applications in the Airline Industry by Ashgate publishing, 2010. He also has several publications in the area of airline management, operations and competition analysis, transportation planning, and simulation of complex systems in several journals including European Journal of Operational Research, Transportation Research, Journal of Revenue and Pricing Management, Annals of Operations Research, Air Transportation Management, International Journal of Revenue Management, Transportation Research Record, Journal of Public Transportation, Air Traffic Control Quarterly. Dr. Abdelghany participates in several research and consulting projects on commercial airlines, Next Generation Air Transportation Systems (NextGen) and simulation of complex transportation systems in the U.S. and overseas. Dr. Abdelghany participates in teaching several short courses for professionals in the airline and transportation industry.

Work Experience

Associate Professor	Operations Management/Logistics Department of Management, Marketing and Operations, College of Business	Embry-Riddle Aeronautical University, Daytona Beach, FL	August 2012- Present
Assistant Professor	Operations Management/Logistics Department of Management, Marketing and Operations, College of Business	Embry-Riddle Aeronautical University, Daytona Beach, FL	January 2006-May 2012
Assistant Professor	Transportation Engineering Department of Civil and Environmental Engineering	University of Alaska, Fairbanks, AK	January 2005- December 2005
Analyst/Senior Analyst	Information Services Division (ISD)	United Airlines, Chicago, IL	February 2001- January 2005
Graduate Research Assistant	Center for Transportation Research	University of Texas at Austin, TX	August 1996- February 2001

Education

University of Texas at Austin, TX	Civil Engineering (Transportation Systems)	Ph.D.	2001
Cairo University, Egypt	Civil Engineering (Transportation)	M.Sc.	1996
Cairo University, Egypt	Civil Engineering	B.Sc.	1992

Selected Publications

Books:

Modeling Applications in the Airline Industry

ISBN: 978-0-7546-7874-8

Ashgate, January 2010

Journal Papers:

1. **Abdelghany, A.**, Abdelghany, K., & Mahmassani, H. (2016). A hybrid simulation-assignment modeling framework for crowd dynamics in large-scale pedestrian facilities. *Transportation Research Part A: Policy and Practice*, 86, 159-176.
2. **Abdelghany, A.**, Abdelghany, K., Mahmassani, H., & Alhalabi, W. (2014). Modeling framework for optimal evacuation of large-scale crowded pedestrian facilities. *European Journal of Operational Research*, 237(3), 1105-1118.
3. Guzhva, V., **Abdelghany, A.** and Lipps, T. (2014) " Experimental approach to NextGen benefits estimation: A case of single-airline Aircraft Arrival Management System", *Journal of Air Transport Management*, 35, pp 108-116.
4. **Abdelghany, A.**, Abdelghany, K., Mahmassani, H., and Al-Zahrani, A. (2012) "Dynamic Simulation Assignment Model for Pedestrian Movements in Crowded Networks", *Transportation Research Record No. 3254*, pp 95-101.
5. **Abdelghany, A.**, Guzhva, V. and Srinivasan, K. (2011), "Addressing and Benchmarking Variations in Airport Demand in the U.S. Domestic Market", *Transportation Research Record No. 2214*, pp 20-26.
6. **Abdelghany, A.** and Guzhva, V. (2010) "A Time-Series Modeling Approach for Airport Short-Term Demand Forecasting", *Journal of Airport Management*, Vol 5, No. 1, pp 72-87.
7. Hassan, A., Abdelghany, K. and **Abdelghany A.** (2010) "Modeling Framework for Evaluating Airline Schedule Sensitivity to Airport Congestion Pricing", *Transportation Research Record*, No. 2177, pp 33-40.
8. **Abdelghany, A.** and Guzhva, V. (2010) "Analyzing Airlines Market Service using Panel Data", *Journal of Air Transport Management*, 16, pp 20-25.
9. **Abdelghany, A.**, Abdelghany, K., Mahmassani, Al-Ahmadi, H. and Halabi, W. (2010), "Modeling the Evacuation of Large-Scale Crowded Pedestrians Facilities", *Transportation Research Record No. 2198*, pp 152-160.
10. Hassan, A., Abdelghany, K. and **Abdelghany A.** (2009) "Modeling Framework for Airline Competition in the U.S. Domestic Market", *Transportation Research Record*, No. 2106, pp 47-56.
11. **Abdelghany, A.**, Sattayalekha, W. and Abdelghany, K., (2009) "On Airlines Code-share Optimisation: A Modelling Framework and Analysis", *International Journal of Revenue Management*, Volume 3, Number 3, pp 307-330.

12. **Abdelghany, A.** and Abdelghany, K., (2008) "A Micro-Simulation Approach for Airlines Competition Analysis and Demand Modeling", *International Journal of Revenue Management*, Vol. 2, No. 3, pp 287-306.
13. Abdelghany, K., **Abdelghany, A.**, and Ekollu, G. (2008) "An Integrated Decision Support Tool for Airlines Schedule Recovery during Irregular Operations", *European Journal of Operational Research* 185, pp 825-848.
14. Abdelghany, K., **Abdelghany, A.**, Niznik, T. (2007), "Managing Severe Airspace Flow Programs: the Airlines' Side of the Problem", *Journal of Air Transport Management*, Vol. 13, No. 6, pp. 329-337.
15. **Abdelghany, A.** (2007) "Methodology for Comparative Analysis to Evaluate Air Travel Service in Alaska", *Transportation Research Record* No. 1996, pp 83-91.
16. **Abdelghany, A.** and Abdelghany, K., (2007) "Evaluating Airlines Ticket Distribution Strategies: A Simulation-based Approach", *International Journal of Revenue Management*, Vol. 1, No.3, pp 231-246.
17. Abdelghany, K., Mahmassani, H., and **Abdelghany, A.**, (2007), "A Modeling Framework for Bus Rapid Transit Operations Evaluation and Service Planning", *Transportation Planning and Technology*, Vol. 30, No. 6, pp 571-591.
18. **Abdelghany, A.**, Abdelghany, K. (2006), "Modeling Air-Carrier's Portfolio of Business Travel", *Journal of Revenue and Pricing Management*, Volume 6, Number 1, March 2007 , pp 51-63(13).
19. Abdelghany, K., **Abdelghany, A.**, Mahmassani, H., and A. Abdelfatah, (2006), "Modeling Bus Priority Using Intermodal Dynamic Network Assignment-Simulation Methodology", *Journal of Public Transportation*, Vol. 9, No. 5, 2006.
20. **Abdelghany, A.**, Abdelghany, K. F., Narasimhan, R. (2006), "Scheduling Baggage Handling Facilities in Congested Airports", *Journal of Air Transport Management*, Vol. 12, pp 76-81.
21. **Abdelghany, A.**, Abdelghany, K., Mahmassani, and S. Al-Gadhi (2005), "Micro-Simulation Assignment Model for Multidirectional Pedestrian Movement in Crowded Facilities," *Transportation Research Record* No. 1939, pp. 123-132.
22. **Abdelghany A.**, Abdelghany, K. F., Ekollu, G., (2004), "A Genetic Algorithm Approach for Ground Delay Program Management: The Airlines' Side of the Problem", *Air Traffic Control Quarterly*, Vol. 12(1), pp 53-74.
23. **Abdelghany, A.**, Ekollu, G., Narasimhan R., and Abdelghany, K. F., (2004), "A Proactive Crew Recovery Decision Support Tool for Commercial Airlines during Irregular Operations", *Annals of Operations Research*, Special Issue on Staff Scheduling and Rostering: Theory and Applications, 127, pp. 309-331.
24. Abdelghany, K. F., Shah S. S., Raina S. and **Abdelghany, A.** (2004), "A model for projecting flight delays during irregular operation conditions", *Journal of Air Transport Management* Vol. 10 (6), pp 385-394.
25. Abdelghany, K. F., **Abdelghany, A.**, and Raina S. (2004), "A Model for the Airlines' Optimal Fuel Ferrying Strategies", *Journal of Air Transport Management*, 11, pp. 199-206
26. **Abdelghany, A.**, and Mahmassani, H. (2003), "Temporal-spatial Micro-Assignment and Sequencing of Travel Demand with Activity/Trip Chains", *Transportation Research Record* 1831, pp 89-97.

27. **Abdelghany, A.**, and Mahmassani, H., and Chiu, Y. (2001), "Spatial Micro-Assignment of Travel Demand with Activity/Trip Chains", Transportation Research Record 1777, pp 36-46.
28. **Abdelghany, A.**, Abdelghany K., Mahmassani H., and Murray, P. (2000), "Dynamic Traffic Assignment in Design and Evaluation of High-Occupancy Toll Lanes", Transportation Research Record 1733, pp 39-48.

Recent University Research Projects

- Rhoades, D., Abdelghany, A., Vasigh, B., and Yu, C., National Air Transportation Policy (2014), Pakistan Aviation Authority.
- Abdelghany, A. and Guzhva, V. (2009-2011), Benefit Analysis of Aircraft Arrival Management system for Next Generation Air Transportation System, Federal Aviation Administration (FAA).
- Coyne, W. and Abdelghany A. (2010-2011), "Evaluating simulation tools to study the impact of space shuttle launch on the National Air Transportation system", Federal Aviation Administration (FAA).
- Bazargan, Guzhva, V. and Abdelghany, A. (2009), Benefit Analysis of 4-D Trajectory Based Operations for Next Generation Air Transportation System, Federal Aviation Administration (FAA).
- Abdelghany, A., Rhoades, D., and French, D. (2008), Volusia County Transportation Challenge: A Commentary Report on Volusia County's Long Range Transportation Plan, Volusia County Higher Education Consortium.
- Bazargan, M., and Abdelghany, A. (2007) Weather-related General Aviation Accidents, Center of General Aviation Research, Federal Aviation Administration (FAA).
- Bazargan, M., Byers D., Guzhva, V. and Abdelghany, A. (2007) Airport Funding Strategies – Phase II, Center of General Aviation Research, Federal Aviation Administration (FAA).
- Abdelghany, A., (April 2006) "Above-ground actuated yellow crosswalk lights at uncontrolled pedestrian crossings, Alaska Department of Transportation, Statewide Research Office, ASL-2006-04/1-8 AK.

Professional Activities

ASCE: American Society of Civil Engineers

Informs: The Institute for Operational Research and Management Science

Sloan: Affiliated with the Alfred Sloan Foundation

Editorial Board: International Journal of Revenue Management