

Konstantinos Kanistras

CONTACT INFORMATION	Department of Mechanical & Aerospace Engineering University of Alabama in Huntsville	301 Sparkman Drive Technology Hall Huntsville, AL 35899 phone: (256) 824-5089 e-mail: konstantinos.kanistras@uah.edu
APPOINTMENTS	University of Alabama in Huntsville <i>Assistant Professor</i> <i>Mechanical & Aerospace Engineering Department</i> Research Interests: Applied Aerodynamics & Flow Control	August 2018 – present
	University of Alabama in Huntsville <i>Lecturer</i> <i>Mechanical & Aerospace Engineering Department</i>	January 2018 – August 2018
	University of Denver , Denver, Colorado <i>Adjunct Professor</i> <i>Electrical & Computer Engineering Department</i>	September 2016 – December 2017
	University of Denver , Denver, Colorado <i>Postdoctoral Fellow</i> , DU Unmanned Systems Research Institute <i>Advisers: Prof. K. P. Valavanis & Associate Prof. M. J. Rutherford</i>	April 2016 – December 2017
	University of Denver , Denver, Colorado <i>Research Assistant</i> , DU Unmanned Systems Research Institute <i>Advisers: Prof. K. P. Valavanis & Associate Prof. M. J. Rutherford</i>	January 2013 – March 2016
	University of Denver , Denver, Colorado <i>Teaching Assistant</i> , Electrical & Computer Engineering Department	September 2011 – December 2012
EDUCATION	University of Denver , Denver, Colorado <i>Ph.D.</i> , Electrical & Computer Engineering	September 2011 – March 2016
	University of Bath , Bath, United Kingdom <i>M.Sc.</i> , Mechanical & Aerospace Engineering	October 2007 – September 2008
	University of Patras , Patras, Greece <i>B.S.</i> , Physics	February 2002 – July 2007
PATENTS	Kanistras, K. , Saka, P. C., Valavanis, K. P., & Rutherford, M. J. (2018). Circulation control system for aerial vehicles. <i>Pub.No.:2018/0134372 A1</i> , <i>Pub.Date: May 17</i> , United States, Patent Pending.	
BOOKS & BOOK CHAPTERS	Kanistras, K. , Valavanis, K. P., & Rutherford, M. J. (2018). Foundations of circulation control based small-scale unmanned aircraft: A comprehensive methodology from concept to design and experimental testing. <i>Springer</i> , ISBN 978-3-319-67851-1. Kanistras, K. , Martins, G., Rutherford, M. J., & Valavanis, K. P. (2014). A survey of unmanned aerial vehicles (uavs) for traffic monitoring. <i>Springer, Book Chapter in Handbook of Unmanned Aerial</i>	

Vehicles, 2643-2666.

Kanistras, K., Saka, P. C., Rutherford, M. J., & Valavanis, K. P. (2018). A circulation control system for enhanced aircraft performance. *Springer, Book Chapter in Encyclopedia of Robotics, Under Review*.

JOURNAL
PUBLICATIONS

Kanistras K., Saka, P. C., Valavanis, K. P., & Rutherford, M. J. (2018). Wind tunnel investigation of a circulation control wing with dual radius flaps. *Journal of Aircraft, AIAA*, doi.org/10.2514/1.C034208.

Rosen, C., **Kanistras K.**, Saka, P. C., Valavanis, K. P., & Rutherford, M. J. (2018). System identification and controller implementation of a centrifugal compressor for circulation control applications. *Journal of Intelligent and Robotic Systems, Springer*, doi.org/10.1007/5/s/10846-017-0756-6, pp.1-22.

JOURNAL
PUBLICATIONS IN
PREPARATION

Agha, M., **Kanistras, K.**, Rutherford, M. J., & Valavanis, K. P. (2018). Mathematical model derivation of an unmanned circulation control aerial vehicle *uc²av*. *IEEE Transaction on Automatic*.

PEER-REVIEWED
CONFERENCE
PROCEEDINGS

Michailidis, M. G., **Kanistras, K.**, Agha, M., Rutherford, M. J., & P., V. K. (2018). Nonlinear control of fixed-wing uavs with time-varying aerodynamic uncertainties via μ -synthesis. *Decision and Control Conference, Accepted for Publication*.

Michailidis, M. G., **Kanistras, K.**, Agha, M., Rutherford, M. J., & Valavanis, K. V. (2017). Robust nonlinear control of the longitudinal flight dynamics of a circulation control fixed wing uav. *56th IEEE conference on Decision and Control, December 12-15, Melbourne Australia*.

Michailidis, M. G., Agha, M. t., Rutherford, M. J., & Valavanis, K. P. (2017). A controller design framework for a nextgen circulation control based uav. *IEEE CCTA Conference, Hawaii*.

Agha, M., **Kanistras, K.**, Saka, P. C., Valavanis, K. P., & Rutherford, M. J. (2017). System identification of circulation control uav using x-plane flight simulation software and flight data. *AIAA Aviation, Denver (Co), 5-9 June*.

Rosen, C., **Kanistras, K.**, Saka, P. C., Valavanis, K. P., & Rutherford, M. J. (2017). Design and development of a control scheme for uc2av: Unmanned circulation control aerial vehicle. *AIAA SciTech, Grapevine, Texas, 9-13 January*.

Kanistras, K., Saka, P. C., Valavanis, K. P., & Rutherford, M. J. (2016). *uc²av*: Unmanned circulation control aerial vehicle for short takeoff and enhanced payload. *AIAA Aviation, Washington (DC), 13-17 June*.

Saka, P. C., **Kanistras, K.**, Valavanis, K. P., & Rutherford, M. J. (2016). Development of a framework for a circulation control-based unmanned aerial vehicle. *IEEE Aerospace Conference, Montana, USA*.

Kanistras, K., Saka, P. C., Valavanis, K. P., Vitzilaios, N., & Rutherford, M. J. (2015b). Low speed wind tunnel investigation of a circulation control wing for enhanced lift. *AIAA Aviation Dallas, Texas, 22-26 June*.

Kanistras, K., Saka, P. C., Valavanis, K. P., Vitzilaios, N. I., & Rutherford, M. J. (2015a). Design and development of an air supply unit for circulation control wing-based uavs. *IEEE Aerospace Conference, Montana, USA*.

Kanistras, K., Rutherford, M. J., Vitzilaios, N., & Valavanis, K. P. (2014). Experimental study of circulation control wings at low reynolds numbers. *32nd Applied Aerodynamics Conference, Aviation, Atlanta*.

Kanistras, K., Rutherford, M. J., & Valavanis, K. P. (2014). Development of a circulation control wing for uavs. *IEEE Aerospace Conference, Montana, USA*.

Kanistras, K., Martins, G., Rutherford, M. J., & Valavanis, K. P. (2013). A survey of unmanned aerial vehicles (uavs) for traffic monitoring. *International Conference on Unmanned Aircraft Systems (ICUAS), Atlanta, 221-234*.

Brune, C., Dityam, T., Girwar-Nath, J., **Kanistras, K.**, Martins, G., Moses, A., ... Valavanis, K. P. (2012). Enabling civilian applications of unmanned teams through collaboration, cooperation and sensing. *SPIE Defense, Security and Sensing*.

WORKSHOPS **Kanistras, K.**, & Valavanis, K. P., *Circulation Control and active flow techniques on UAVs for enhanced performance* Tutorial in ICUAS 13-16 June 2017 Conference, Miami, USA.

Alvarenga, J., and **Kanistras, K.**, and Vitzilaios, N. I., Rutherford, M. J., & Valavanis K. P., *Unmanned Aircraft Systems Technology Overview Short Course*, University of Denver Unmanned Systems Research Institute, Front Range Airport, CO, USA. September 5, 2013.

CLASSES TAUGHT

- MAE 480/580 Aircraft Stability & Control
- MAE 343 Compressible Aerodynamics
- MAE 310 Fluid Mechanics
- ENMT 4010 Space Systems Design
- ENMT 3220/422- Mechatronics I & II
- ENGR 3721 Contrtols
- ENGR 3611 Engineering Analysis
- ENGR 3621 Advanced Engineering Mathematics

AWARDS

- Graduate Student Scholar of the Year (University of Denver, USA): 2015
- Graduate Studies Dissertation Fellowship (University of Denver, USA): 2014-2015
- Graduate Studies Doctoral Fellowship for Inclusive Engagement (University of Denver, USA): 2012-2013
- A. Mentzelopoulos Scholarship (University of Patras, Greece): 2011-2013

EDITORIAL DUTY

- Reviewer: **Journal of Intelligent & Robotic Systems**, Springer, 2013 – present
- Reviewer: **Journal of Aircraft**, AIAA, 2017 – present
- Reviewer: **International Conference on Robotics and Automation**, 2017 – present

PROFESSIONAL MEMBERSHIP

- The American Institute of Aeronautics and Astronautics (AIAA) 2012 – present