**Publication List Related to Unmanned Aerial Systems (UAS)**

**Mechatronics, Embedded Systems and Automation (MESA) Lab, School of Engineering,**

**University of California, Merced, 5200 North Lake Road, Merced, CA 95343, USA**

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**Last updated:** 10/7/2013. 06/11/2014. 03/30/2015

**Distinctions:**

* Topic Editor-in-Chief “Field Robotics”. *International Journal of Advanced Robotic Systems* (2013-)
* Senior Editor, *Journal of Intelligent & Robotic Systems* (Springer)
* Founding Associate Editor, *Unmanned Systems* (World Scientific)
* Associate Editor
	+ *ICRA, IROS, ACC, CDC*
	+ *IEEE Transactions on Control Systems Technology*
	+ *ISA Transactions*
	+ *ASME Journal of Dynamic Systems, Measurement and Control*
	+ IFAC journal *Mechatronics*
	+ IFAC journal *Control Engineering Practice*
	+ IET *Control Theory and Applications* (2015-)
* 2015
	+ MESA Lab’s 9th approved FAA CoA (Certificate of Authorization) is for night flight! March 16, 2015.
	+ Invited Speaker. February 18, 2015. Davis, CA. UC ANR RECS (Research and Extension Center System). Regional Directors's meeting.
	+ Invited Panelist. February 17, 2015. Sacramento, CA. Oversight Hearing. “Drones: Is California Law Ready?” A Hearing of the Senate Committee on Judiciary.
	+ Invited Speaker. Southwest Ag Summit. Yuma, AZ, USA. Feb. 2015
	+ Invited Plenary Speaker. California Melon Research Board. San Diego, CA, USA. Jan. 2015
	+ Invited Panelist. 2015 Unified Wine and Grape Symposium. Sacramento, CA, USA. Jan. 2015.
* 2014.
	+ General Co-Chair. International Conference on Unmanned Aircraft Systems (ICUAS14), Orlando, FL.
	+ 2014. Co-Organizer and Co-Instructor. Emerging SUAS Technology for Precision Agriculture Applications (AGDRONETECH14). Half Day Pre-Conference Tutorial Workshop @ ICUAS14, Orlando, FL. May 27th.
	+ Invited Roundtable Discussion Panelist on FAA UAS COE proposal. CA GoBiz. Sacramento, CA.
	+ Invited Water-Drone on-site demo. Cosumnes River Reserve.
	+ Dr. Chen gave lightening talk at UC Berkeley Workshop on Groundtruth and Airwaves: Sensor Networks and Emerging Technology for Environmental Journalism.
	+ Founding Faculty Mentor. AIAA UC Merced Student Chapter.
* 2013.
	+ Invited Panelist. Legislative Hearing on Drone Uses. State of California Assembly, Public Safety Committee. August 6, 2013, Sacramento, CA.
	+ May 28, 2013. Y.Q. Chen, Brandon Stark, A. Jenson, and C. Coopmans. *SUAS Airworthiness, Architecture, and Human Factors.* Invited Half-Day Tutorial at 2013 ICUAS, Atlanta, GA, USA.
	+ Program Chair. ICUAS (International Conference on Unmanned Aircraft Systems) 2013. Atlanta, GA.
	+ Workshop Chair. ASME IDETC/CIE 2013. Portland, OR.
	+ Symposium Co-Chair. “Symposium on Small UAV Technologies and Applications” ASME/IEEE MESA13, part of ASME IDETC/CIE 2013. Portland, OR.
* 2012
	+ Tutorial Workshop Chair. 2012 International Conference on Unmanned Aircraft Systems (ICUAS). Philadelphia, PA, 2012 <http://www.uasconferences.com/>
	+ Symposium co-chair. 4th SUAVTA, IEEE/ASME MESA 2012 (<http://www.asmemesa.org>)
	+ June 26, 2012. Health Management, Fault-tolerant Control, and Cooperative Control of Unmanned Aircraft [Unmanned Aircraft] Organizers: Youmin Zhang, Camille Alain Rabbath, YangQuan Chen, Christopher Edwards, Cameron Fulford, Hugh H.-T. Liu, Liang Tang, Didier Theilliol, and Antonios Tsourdos <http://a2c2.org/conferences/acc2012/workshops.php>
	+ Invited Tutorial at 2012 ICUAS (Int. Conf. on Unmanned Aerial Systems) (full day) on June 12th, 2012, Philadelphia, PA., on “*Low-cost UAV-based precision thermal infrared (TIR) mapping - A new Personal Remote Sensing capability: UAV platform, TIR payload, in-flight calibration and applications.*”
* 2011
	+ NSF RAPID Grant ($50K) (Site of UAS flight: Christchurch, New Zealand)
	+ NASA UAS2NAS Grant ($300K)
	+ Member of Advisory Committee. ICUAS (Int. Conf. on Unmanned Aerial Systems) Denver.
	+ 1st Place again! 9th AUVSI SUAS (Student Unmanned Aerial Systems) Competition. Wins $13,400. First team in the history of the competition to have won first place twice!
	+ Advisory Committee. 2011 International Conference on Unmanned Aircraft Systems (ICUAS). Denver Colorado USA May 24-27, 2011 <http://www.uasconferences.com/>
	+ Symposium Chair. 3rd SUAVTA under ASME/IEEE MESA2011. <https://www.asmeconferences.org/IDETC2011/>
	+ Invited Tutorial at 2011 ICUAS (Int. Conf. on Unmanned Aerial Systems) (full day) on May 24th, 2011, Denver, CO., on “*Multi-UAV Based Multi-Spectrum Collaborative Personal Remote Sensing: Concepts, Platform & Applications*”
* 2010:
	+ 9th Place! 8th AUVSI UAS (Unmanned Aerial Systems) Competition. Wins $6,200. First team in the history of the competition to have finally figured out the magic phrase: “FLY SAFE JUST JOE”
	+ IPC member. 2010 IEEE MFI (multisensory fusion and integration), Salt Lake City, UT, USA, <http://www.cs.utah.edu/mfi2010/>
* 2009
	+ First Prize, 7th AUVSI UAS (Unmanned Aerial Systems) Competition. Wins $14,000 for First Place Overall
	+ Symposium Co-Chair. The first Symposium on Small Unmanned Aerial Vehicle Technologies and Applications (SUAVTA) at MESA09, San Diego.
* 2008
	+ Second Prize, 6th AUVSI UAS (Unmanned Aerial Systems) Competition. Wins $8,000 for 2nd Place Overall, 2nd Place in Mission, Honorable Mention in both Orals and Journal, and Prize Barrels for Autonomous Mission Flight, Autonomous Landing, JAUS and Perfect Identification of the Off-Path Target.

**UAS Related Patent**

* US20110010026, January 13, 2011. “Calibration Method for Aerial Vehicles”
* Numerous patent disclosures submitted related to UAS AggieAir.

**UAS Related Monographs:**

1. Christophe Tricaud+ and YangQuan Chen\*. “*Optimal Mobile Sensing and Actuation Policies in Cyber-physical Systems*”. Springer. ISBN 978-1-4471-2261-6. 2012. (170 pages) <http://www.springer.com/engineering/robotics/book/978-1-4471-2261-6>
2. Ying Luo+ and YangQuan Chen\*. “*Fractional Order Motion Controls*” John-Wiley and Sons, Inc., 2012 (Online Oct. 2012, 424 pages) **ISBN:** 978-1119944553. DOI: 10.1002/9781118387726
3. Haiyang Chao+ and YangQuan Chen\*. “*Remote Sensing and Actuation Using Unmanned Vehicles*” Wiley-IEEE Press, Aug. 2012 **ISBN-13:** 978-1118122761 (IEEE Press Series on Systems Science and Engineering) <http://www.wiley.com/WileyCDA/WileyTitle/productCd-1118122763.html>

**UAS Related Edited Book:**

1. Chen, XQ, Chen, YQ and Chase, JG (2009). “*Mobile Robots: State of the Art in Land, Sea, Air, and Collaborative Missions*,” I-Tech Publishing, Vienna, Austria, ISBN 978-953-307-001-8, 335 pages, Publishing date: May 2009. <http://sciyo.com/books/show/title/mobile-robots-state-of-the-art-in-land-sea-air-and-collaborative-missions>

**UAS Related Refereed Book Chapters and Book Chapter Papers:**

1. Brandon Stark, Calvin Coopmans and YangQuan Chen. “*Concept Of Operations Of Small Unmanned Aerial Systems: Basis For Airworthiness Towards Personal Remote Sensing*” a chapter in Handbook of Unmanned Aerial Vehicles, Valavanis, Kimon P.; Vachtsevanos, George J (Eds.) <http://www.springer.com/engineering/robotics/book/978-90-481-9708-8> (Jan. 2014 to appear)
2. Calvin Coopmans, Brandon Stark, Austin Jensen, YangQuan Chen, Mac McKee. “*Cyber-Physical Systems Enabled By Small Unmanned Aerial Vehicles*” a chapter in Handbook of Unmanned Aerial Vehicles, Valavanis, Kimon P.; Vachtsevanos, George J (Eds.) <http://www.springer.com/engineering/robotics/book/978-90-481-9708-8> (Jan. 2014 to appear)
3. Brandon Stark, YangQuan Chen and Mac KcKee (2012). “*AggieVTOL: A Vertical Take Off and Landing Unmanned Aerial Vehicle Platform for Personal Remote Sensing*”. IGI Global Press. A chapter in “Prototyping of Robotic Systems: Applications of Design and Implementation.” Editors: Dr. Tarek Sobh & Dr. Xingguo Xiong, Univ. of Bridgeport, Connecticut, USA, 2012. 35 pages. <http://www.igi-global.com/chapter/aggievtol-vertical-take-off-landing/63532>
4. Haiyang Chao, Austin M. Jensen, Yiding Han, YangQuan Chen and Mac McKee (2009). AggieAir: Towards Low-cost Cooperative Multispectral Remote Sensing Using Small Unmanned Aircraft Systems, Advances in Geoscience and Remote Sensing, Gary Jedlovec (Ed.), ISBN: 978-953-307-005-6, INTECH, Available from: <http://sciyo.com/articles/show/title/aggieair-towards-low-cost-cooperative-multispectral-remote-sensing-using-small-unmanned-aircraft-sys> Pages: 463-490.
5. Christophe Tricaud+ and YangQuan Chen\* (2009). “*Optimal Real-Time Strategies for Estimation of Distributed Parameter Systems Using Networked Mobile Sensors and Actuators*” Chapter-10 of “Mobile Robots: State of the Art in Land, Sea, Air, and Collaborative Missions,” Edited by X.Q. Chen, Y.Q. Chen, and J.G. Chase**,** I-Tech Publishing, Vienna, Austria, ISBN 978-3-902613-39-4. (2009) <http://sciyo.com/articles/show/title/optimal-real-time-estimation-strategies-for-a-class-of-cyber-physical-systems-using-networked-mobile>
6. X.Q. Chen\*, Y.Q. Chen, and J.G. Chase (2009). “*Mobiles Robots – Past, Present and Future*”. Chapter-1 of “Mobile Robots: State of the Art in Land, Sea, Air, and Collaborative Missions,” Edited by X.Q. Chen, Y.Q. Chen, and J.G. Chase, I-Tech Publishing, Vienna, Austria, ISBN 978-3-902613-39-4. (2009) Available from: <http://sciyo.com/articles/show/title/mobiles-robots-past-present-and-future>
7. J. Ignacio Suarez, Blas M. Vinagre\*, José Eugenio Naranjo and YangQuan Chen (2005). “*Validation of the Model of an Unmanned Autonomous Vehicle Used in Path-Tracking Tasks*”.  A chapter in ``*Intelligent Systems at the Service of Mankind*'', Volume 2, Editors: Wilfried Elmenreich, J. Tenreiro Machado, Imre J. Rudas. UBooks, Augsburg, Germany, 2005. ISBN 978-3866080522.
8. J. I. Su\'{a}rez, B. M. Vinagre\*, A. J. Calder\'{o}n, C. A. Monje and Y. Q. Chen (2003). "*Using Fractional Calculus for Lateral and Longitudinal Control of Autonomous Vehicles*". Chapter in the Lecture Notes in Computer Science (LNCS). Springer Verlag. Vol.. [2809](http://www.springeronline.com/sgw/cda/frontpage/0%2C10735%2C5-40109-22-11713671-0%2C00.html): Franz R. Pichler, Moreno-Diaz, R. et al.  (Eds.) Part - Autonomous and Control System "*Computer Aided Systems Theory-* [*EUROCAST 2003*](http://www.iuctc.ulpgc.es/iuctc/spain/eurocast/index.html)". Feb. 2003. pp. 337-348. ISBN 978-3-540-20221-9.

**UAS Related Refereed Journal Papers:** (\*: corresponding author)

1. D Chen, YQ Chen, D Xue. “Three fractional-order TV-L2 models for image denoising”. **Journal of Computational Information Systems**. Volume 9, Issue 12, 15 June 2013, Pages 4773-4780. DOI: <http://dx.doi.org/10.12733/jcis6159>
2. Chen, D.-L., Zheng, C.-R., Xue, D.-Y., Chen, Y.-Q. “Non-local fractional differential-based approach for image enhancement.” **Research Journal of Applied Sciences, Engineering and Technology**. Volume 6, Issue 17, 2013, Pages 3244-3250.
3. D Chen, D Xue, YQ Chen. “A fractional differential-based approach for edge detection.” **Journal of Computational Information Systems**. Volume 9, Issue 23, 1 December 2013, Pages 9515-9522. DOI: <http://dx.doi.org/10.12733/jcis7819>
4. D Chen, YQ Chen, D Xue. “Fractional-Order Total Variation Image Restoration Based on Primal-Dual Algorithm.” **Abstract and Applied Analysis** 2013. Volume 2013 (2013), Article ID 585310, 10 pages <http://dx.doi.org/10.1155/2013/585310>
5. D Chen, YQ Chen, D Xue. “Fractional-order total variation image denoising based on proximity algorithm.” **Applied Mathematics and Computation** 257, 537-545 <http://www.sciencedirect.com/science/article/pii/S0096300315000260> (April 2015)
6. Y Xu, YP Tian, YQ Chen. “Output consensus for multiple non-holonomic systems under directed communication topology.” **International Journal of Systems Science** 46 (3), 451-463. March 2015. DOI: (online April 2013) <http://dx.doi.org/10.1080/00207721.2013.784821>
7. D Chen, YQ Chen, D Xue. “Three fractional-order TV-L2 models for image denoising”. **Journal of Computational Information Systems**. Volume 9, Issue 12, 15 June 2013, Pages 4773-4780. DOI: <http://dx.doi.org/10.12733/jcis6159>
8. Jensen AM\*, Geller DK, Chen YQ. Monte Carlo Simulation Analysis of Tagged Fish Radio Tracking Performance by Swarming Unmanned Aerial Vehicles in Fractional Order Potential Fields. **Journal of Intelligent & Robotic Systems** [Internet]. 2014. Available from: <http://link.springer.com/10.1007/s10846-013-9949-9> April 2014, Volume 74, Issue 1-2, pp 287-307
9. Coopmans C\*, Jensen AM, Chen YQ. Fractional-Order Complementary Filters for Small Unmanned Aerial System Navigation. **Journal of Intelligent & Robotic Systems** [Internet]. 2014. Available from: <http://link.springer.com/10.1007/s10846-013-9915-6> January 2014, Volume 73, Issue 1-4, pp 429-453
10. Hoffer NV, Coopmans C, Jensen AM, Chen YQ.\* A Survey and Categorization of Small Low-Cost Unmanned Aerial Vehicle System Identification. **Journal of Intelligent & Robotic Systems** [Internet]. 2014. Available from: <http://link.springer.com/10.1007/s10846-013-9931-6> April 2014, Volume 74, Issue 1-2, pp 129-145
11. Han J, Di L, Coopmans C, Chen YQ\*. Pitch Loop Control of a VTOL UAV Using Fractional Order Controller. **Journal of Intelligent & Robotic Systems** [Internet]. 2014. Available from: <http://link.springer.com/10.1007/s10846-013-9912-9> January 2014, Volume 73, Issue 1-4, pp 187-195
12. Han J, Chen YQ\*. Multiple UAV Formations for Cooperative Source Seeking and Contour Mapping of a Radiative Signal Field. **Journal of Intelligent & Robotic Systems.** 2014. [http://link.springer.com/article/10.1007%2Fs10846-013-9897-4#page-1](http://link.springer.com/article/10.1007/s10846-013-9897-4#page-1) April 2014, Volume 74, Issue 1-2, pp 323-332.
13. Stark, Brandon; Coopmans, Calvin; Chen, YangQuan\*. Concept of Operations for Personal Remote Sensing Unmanned Aerial Systems. **Journal of Intelligent & Robotic Systems** Volume: 69 Issue: 1-4 Pages: 5-20 Published: JAN 2013. DOI: 10.1007/s10846-012-9710-9
14. Li, Zhuo; Hoffer, Nathan; Stark, Brandon; Chen, YangQuan\*. Design, Modeling and Validation of a T-Tail Unmanned Aerial Vehicle. **Journal of Intelligent & Robotic Systems** Volume: 69 Issue: 1-4 Pages: 91-107 Published: JAN 2013. DOI: 10.1007/s10846-012-9726-1
15. Chen, Dali; Sheng, Hu; Chen, YangQuan\*; Xue, Dingyu. Fractional-order variational optical flow model for motion estimation. **Philosophical Transactions of the Royal Society a-Mathematical Physical and Engineering Sciences** Volume: 371 Issue: 1990 Published: MAY 13 2013. DOI: 10.1098/rsta.2012.0148
16. Dali Chen, Shenshen Sun, Congrong Zhang, YangQuan Chen, Dingyu Xue. “Fractional-order TV-L2 model for image denoising.” **Central European Journal of Physics**. May 2013. [http://rd.springer.com/article/10.2478%2Fs11534-013-0241-1](http://rd.springer.com/article/10.2478/s11534-013-0241-1)
17. Han, Jinlu; Xu, Yaojin; Di, Long; Chen, YangQuan\*. Low-cost Multi-UAV Technologies for Contour Mapping of Nuclear Radiation Field. **Journal of Intelligent & Robotic Systems** Volume: 70 Issue: 1-4 Pages: 401-410 Published: APR 2013. DOI: 10.1007/s10846-012-9722-5
18. Ying Luo\*, Haiyang Chao+, Di Long+ and YangQuan Chen\*. “Lateral Channel Fractional Order [PI]^\alpha Control of A Small Flying-Wing UAV: Controller Design and Flight Tests.” **IET Control Theory and Applications.** (accepted on 6/2/2011) doi: 10.1049/iet-cta.2010.0314
19. Haiyang Chao+, Ying Luo+, Long Di+, YangQuan Chen\*. “Roll-Channel Fractional Order Controller Design for a Small Fixed-Wing Unmanned Aerial Vehicle.” **IFAC J. Control Engineering Practice**, Volume 18, Issue 7, July 2010, Pages 761-772. [doi:10.1016/j.conengprac.2010.02.003](http://dx.doi.org/10.1016/j.conengprac.2010.02.003)
20. HaiYang Chao+\*, YongCan Cao+, and YangQuan Chen. “Autopilots for Small Unmanned Aerial Vehicles: A Survey.” **International Journal of Control, Automation, and Systems** (2010) 8(1):36-44. DOI 10.1007/s12555-010-0105-z
21. Hyo-Sung Ahn\*, Kevin L. Moore and YangQuan Chen. “Trajectory-keeping in satellite formation flying via robust periodic learning control.” **Int. J. Robust Nonlinear Control**. Sept. 2010. Vol. 20, issue 14, pages: 1655-1666, DOI: 10.1002/rnc.1538
22. Concepción A. Monje\*, Blas M. Vinagre, Vicente Feliu, and YangQuan Chen. “Tuning and Auto-Tuning of Fractional Order Controllers for Industry Applications”. **IFAC journalControl Engineering Practice (CEP)**, 16 (2008) 798–812. doi:10.1016/j.conengprac.2007.08.006 (IFAC World Congress 2011 Best CEP journal paper award)
23. José I. Suárez, Blas M. Vinagre\* and YangQuan Chen. “A Fractional Adaptation Scheme for Lateral Control of an AGV” **Journal of Vibration and Control**. Vol. 14, No. 9-10, 1499-1511 (2008) DOI: 10.1177/1077546307087434
24. Haiyang Chao+, YangQuan Chen\*, and Wei Ren. “A Study of Grouping Effect On Mobile Actuator Sensor Networks for Distributed Feedback Control of Diffusion Process Using Central Voronoi Tessellations”. **The International Journal of Intelligent Control and Systems**. Volume 11, Number 3, September 2006, pp. 185- 190.
25. Y. Chen, C. Wen\*, J.-X. Xu and M. Sun, 1998, ``High-order Iterative Learning Identification of Projectile's Aerodynamic Drag Coefficient Curve from Radar Measured Velocity Data,' **IEEE Trans. on Control Systems Technology**, vol. 6, no. 4, pp. 563-570, 1998.
26. Y. Chen, C. Wen\* and M. Sun, 1998, ``Identifying Aero-bomb's Aerodynamic Drag Coefficient Curve Using Optimal Dynamic Fitting Method,'' **AIAA Journal of Aircraft**, vol. 35, no. 6, pp. 971-975, Nov.-Dec. issue, 1998.
27. Y. Chen, J.-X. Xu and C. Wen\*, 1998, ``Iterative Learning Based Extraction of Aero-bomb Drag''. **AIAA Journal of Spacecraft and Rockets**, vol. 35, no. 1, March-April, 1998, pp. 237-240.
28. Y. Chen, C. Wen\*, H. Dou and M. Sun, 1997, ``Iterative Learning Identification of Aerodynamic Drag Curve from Tracking Radar Measurements,'' **IFAC journal of Control Engineering Practice**, vol. 5, no. 11, pp. 1543-1554, Nov. 1997.

**UAS Related Refereed Conference Papers**

1. Jianxiong Cao, YangQuan Chen, Changpin Li. “Closed-loop controlled spraying of anomalously diffusing pests using networked unmanned aircraft crop-dusters: The anisotropic case”. **The International Congress on Industrial and Applied Mathematics** (ICIAM). Aug. 10-14, 2015. Beijing, China.
2. Fudong Ge, YangQuan Chen, Chunhai Kou. “Regional controllability of anomalous diffusion generated by the time fractional diffusion equations.” **ASME IDETC/CIE 2015**, Boston, Aug. 2-5, 2015 (accepted) DETC2015-46697.
3. Fudong Ge, YangQuan Chen, Chunhai Kou. “The adjoint systems of time-fractional diffusion equations and their applications in controllability analysis.” **ASME IDETC/CIE 2015**, Boston, Aug. 2-5, 2015 (accepted) DETC2015-46696
4. Guimei Zhang et al. and YangQuan Chen. “Research on Image Matching Combining on Fractional Differential with Scale Invariant Feature Transform.” **ASME IDETC/CIE 2015**, Boston, Aug. 2-5, 2015 (accepted) DETC2015-47015
5. Hadi Malek, Sara Dadras and YangQuan Chen. “Failure Prediction Model and ESR Modeling of Electrolytic Capacitor with Application to Predictive Maintenance.” **ASME IDETC/CIE 2015**, Boston, Aug. 2-5, 2015 (accepted) DETC2015-46175
6. Marwin Ko, Brandon Stark and YangQuan Chen. “An Evaluation of Hurst Parameter Estimation for Differentiating Between Normal and Abnormal Heart Rate Variability.” **ASME IDETC/CIE 2015**, Boston, Aug. 2-5, 2015 (accepted) DETC2015-46966
7. Jiacai Huang, YangQuan Chen and Zhuo Li. “Mathematical model of human operator using fractional calculus for human-in-the-loop control.” **ASME IDETC/CIE 2015**, Boston, Aug. 2-5, 2015 (accepted) DETC2015-47464
8. Niloufar Irannejad, YangQuan Chen and Jiacai Huang. “Haptic interface of data-drone operation considering human operator’s force sensitivity.” **ASME IDETC/CIE 2015**, Boston, Aug. 2-5, 2015 (accepted) DETC2015-46695
9. Nathan Hoffer, Cal Coopmans, and YangQuan Chen. “Small Low-Cost Unmanned Aerial Vehicle System Identification By Error Filtering Online Learning (EFOL) Enhanced Least Squares Method**.” Int. Conf. on Unmanned Aircraft Systems (ICUAS).** June 2015. Denver, CO. (under review)
10. Brandon Stark, Matthew McGee, and YangQuan Chen. “Short Wave Infrared (SWIR) Imaging Using Small Unmanned Aerial Systems (sUAS).” **Int. Conf. on Unmanned Aircraft Systems (ICUAS).** June 2015. Denver, CO. (under review)
11. Brandon Stark, Brendan Smith, Nathaly Navarrete and YangQuan Chen. “Airworthiness and Protocol Development for Safe Night Flying Missions for Small Unmanned Aerial Systems (sUASs).” **Int. Conf. on Unmanned Aircraft Systems (ICUAS)**. June 2015. Denver, CO. (under review)
12. Tiebiao Zhao, Brandon Stark, YangQuan Chen, Andrew L. Ray and David Doll. “A Detailed Field Study of Direct Correlations Between Ground Truth Crop Water Stress and Normalized Difference Vegetation Index (NDVI) from Small Unmanned Aerial System (sUAS).” **Int. Conf. on Unmanned Aircraft Systems (ICUAS).** June 2015. Denver, CO. (under review)
13. Brendan Smith, Brandon Stark, Tiebiao Zhao and YangQuan Chen. “An Outdoor Scientific Data Drone Ground Truthing Test Site.” **Int. Conf. on Unmanned Aircraft Systems (ICUAS).** June 2015. Denver, CO. (under review)
14. Knight, J. ; Smith, B. ; YangQuan Chen. “An essay on unmanned aerial systems insurance and risk assessment.” **Mechatronic and Embedded Systems and Applications (MESA), 2014 IEEE/ASME 10th International Conference on** DOI: 10.1109/MESA.2014.6935560 Year: 2014 , Page(s): 1 - 6
15. Brandon Stark, Sean Rider, YangQuan Chen\*. “Optimal control of a diffusion process using networked unmanned aerial systems with smart health.” **Proc. of the IFAC World Congress**, Cape Town, South Africa, Aug. 2014.
16. Austin M. Jensen, Mac McKee and YangQuan Chen. “Procedures for Processing Thermal Images Using Low-Cost Micro-bolometer Cameras for Small Unmanned Aerial Systems”. IEEE IGARSS 2014 - International Geoscience and Remote Sensing Symposium. Québec City, Canada. July 13th – July 18th, 2014.
17. Brandon Stark, Brendan Smith, YangQuan Chen. Survey of Thermal Infrared Remote Sensing for Unmanned Aerial Systems”. In Proceedings of the ICUAS 2014. May 28-30, 2014, Orlando, FL, USA.
18. Brandon Stark, YangQuan Chen\*. “Optimal Collection of High Resolution Aerial Imagery with Unmanned Aerial Systems.” In Proceedings of the ICUAS 2014. May 28-30, 2014, Orlando, FL, USA.
19. Brandon Stark, Brennan Stevenson, Kevin Stow Parker, YangQuan Chen\*. “Embedded Sensors for the Health Monitoring of 3D Printed Unmanned Aerial Systems.” In Proceedings of the ICUAS 2014. May 28-30, 2014, Orlando, FL, USA.
20. Nathan Hoffer\*, Calvin Coopmans, YangQuan Chen, R. Reese Fullmer. “Small Low-Cost Unmanned Aerial Vehicle System Identification: Brief Sensor Survey and Data Quality, Consistency Checking, and Reconstruction.” In Proceedings of the ICUAS 2014. May 28-30, 2014, Orlando, FL, USA.
21. Brandon Stark, Sean Rider, YangQuan Chen. “Optimal Pest Management by Networked Unmanned Cropdusters in Precision Agriculture: A Cyber-Physical System Approach.” In Proc. of The 2nd IFAC Workshop on Research, Education and Development of Unmanned Aerial Systems (RED-UAS, 2013. November 20-22, 2013, Compiegne, France
22. Brandon Stark, Brendan Smith, YangQuan Chen\*. “A Guide for Selecting Small Unmanned Aerial Systems for Research-Centric Applications.” In Proc. of The 2nd IFAC Workshop on Research, Education and Development of Unmanned Aerial Systems (RED-UAS, 2013. November 20-22, 2013, Compiegne, France
23. Austin Jensen\*, YangQuan Chen. “Tracking Tagged Fish With Swarming Unmanned Aerial Vehicles Using Fractional Order Potential Fields and Kalman Filtering” The 2013 International Conference on Unmanned Aircraft Systems, ICUAS'13, Atlanta, GA, May 28-31, 2013.
24. Austin Jensen\*, Cal Coopmans, YangQuan Chen. “Basics and Guidelines of Complementary Filters for Small UAS Navigation” The 2013 International Conference on Unmanned Aircraft Systems, ICUAS'13, Atlanta, GA, May 28-31, 2013.
25. Jinlu Han, Long Di, Cal Coopmans, YangQuan Chen\*. “Fractional Order Controller for Pitch Loop Control of a VTOL UAV” The 2013 International Conference on Unmanned Aircraft Systems, ICUAS'13, Atlanta, GA, May 28-31, 2013.
26. Peter Ferrell, Brendan Smith, Brandon Stark, YangQuan Chen\*. “Dynamic Flight Modeling of a Multi-Mode Flying Wing Quadrotor” The 2013 International Conference on Unmanned Aircraft Systems, ICUAS'13, Atlanta, GA, May 28-31, 2013.
27. Brandon Stark, Brennan Stevenson, YangQuan Chen\*. “Implementation of ADS-B for Small Unmanned Aerial Systems: Case Study and Regulatory Practices” The 2013 International Conference on Unmanned Aircraft Systems, ICUAS'13, Atlanta, GA, May 28-31, 2013.
28. Nathan Hoffer, Cal Coopmans, Austin Jensen, YangQuan Chen\*. “Small Low Cost Unmanned Aerial Vehicle System Identification: A Survey and Catagorization”. The 2013 International Conference on Unmanned Aircraft Systems, ICUAS'13, Atlanta, GA, May 28-31, 2013.
29. Jinlu Han, YangQuan Chen\*. “Cooperative Contour Mapping of a Diffusive Signal Field by formations of Multiple UAVs” The 2013 International Conference on Unmanned Aircraft Systems, ICUAS'13, Atlanta, GA, May 28-31, 2013.
30. Cal Coopmans\*, Austin Jensen, YangQuan Chen. “Fractional-Order Complementary Filter for Small Unmanned Aerial System” The 2013 International Conference on Unmanned Aircraft Systems, ICUAS'13, Atlanta, GA, May 28-31, 2013.
31. Brandon Stark, Tejal Patel, YangQuan Chen. HRV monitoring for human factor research in UAS. DETC2013-12749 ASME/IEEE MESA 2013, ASME IDETC/CIE, August 4-7, 2013. Portland, OR, USA.
32. Miguel Leonardo, Austin Jensen, YangQuan Chen, Mac McKee, Calvin Coopmans. Fish track UAV payload system: A Wildlife Telemetry using UAV’s for moving Target and moving Detector. DETC2013-13444. ASME/IEEE MESA 2013, ASME IDETC/CIE, August 4-7, 2013. Portland, OR, USA.
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