# Felipe Gonzlez

## List of Publications by Year in Descending Order



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|---|---|---|---|
| 90 papers | 1,888 citations | 23 h-index | 41 g-index |
| 101 ext. papers | 2,459 ext. citations | 3.7 avg, IF | 5.28 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 90 | Predicting Canopy Chlorophyll Content in Sugarcane Crops Using Machine Learning Algorithms and Spectral Vegetation Indices Derived from UAV Multispectral Imagery. *Remote Sensing*, **2022**, 14, 1140 | 5 | 4 |
| 89 | Drone-Based Autonomous Motion Planning System for Outdoor Environments under Object Detection Uncertainty. *Remote Sensing*, **2021**, 13, 4481 | 5 | 3 |
| 88 | Incorporating Hierarchical Information for UAV based Semantic Mapping **2021**, | | 1 |
| 87 | LiDAR-based Computational Fluid Dynamics heat transfer models for bushfire conditions. *International Journal of Disaster Risk Reduction*, **2021**, 66, 102587 | 4.5 | 0 |
| 86 | UAV Framework for Autonomous Onboard Navigation and People/Object Detection in Cluttered Indoor Environments. *Remote Sensing*, **2020**, 12, 3386 | 5 | 22 |
| 85 | A Framework for Multiple Ground Target Finding and Inspection Using a Multirotor UAS. *Sensors*, **2020**, 20, | 3.8 | 5 |
| 84 | Unmanned Aerial Vehicle and Artificial Intelligence for Thermal Target Detection in Search and Rescue Applications **2020**, | | 2 |
| 83 | **2020**, | | 1 |
| 82 | Towards Simulating Semantic Onboard UAV Navigation **2020**, | | 1 |
| 81 | Autonomous UAV Navigation for Active Perception of Targets in Uncertain and Cluttered Environments **2020**, | | 6 |
| 80 | A Review of Current Approaches for UAV Autonomous Mission Planning for Mars Biosignatures Detection **2020**, | | 1 |
| 79 | A Framework for Multi-Agent UAV Exploration and Target-Finding in GPS-Denied and Partially Observable Environments. *Sensors*, **2020**, 20, | 3.8 | 5 |
| 78 | Multi-UAV Target-Finding in Simulated Indoor Environments using Deep Reinforcement Learning **2020**, | | 3 |
| 77 | A Method for Evaluating and Selecting Suitable Hardware for Deployment of Embedded System on UAVs. *Sensors*, **2020**, 20, | 3.8 | 2 |
| 76 | A Deep Reinforcement Learning Framework for UAV Navigation in Indoor Environments **2019**, | | 13 |
| 75 | Characterization of the particle emission from a ship operating at sea using an unmanned aerial vehicle. *Atmospheric Measurement Techniques*, **2019**, 12, 691-702 | 4 | 19 |
| 74 | Multiple Ground Target Finding and Action Using UAVs **2019**, | | 2 |

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| 73 | A Framework for UAV Navigation and Exploration in GPS-Denied Environments **2019**, | | 7 |
| 72 | Using virtual reality and thermal imagery to improve statistical modelling of vulnerable and protected species. *PLoS ONE*, **2019**, 14, e0217809 | 3.7 | 4 |
| 71 | UAV tracking of mobile target in occluded, cluttered and GPS-denied environments **2018**, | | 4 |
| 70 | A Novel Methodology for Improving Plant Pest Surveillance in Vineyards and Crops Using UAV-Based Hyperspectral and Spatial Data. *Sensors*, **2018**, 18, | 3.8 | 95 |
| 69 | UAVs and Machine Learning Revolutionising Invasive Grass and Vegetation Surveys in Remote Arid Lands. *Sensors*, **2018**, 18, | 3.8 | 32 |
| 68 | Aerial Mapping of Forests Affected by Pathogens Using UAVs, Hyperspectral Sensors, and Artificial Intelligence. *Sensors*, **2018**, 18, | 3.8 | 64 |
| 67 | UAVs, Hyperspectral Remote Sensing, and Machine Learning Revolutionizing Reef Monitoring. *Sensors*, **2018**, 18, | 3.8 | 28 |
| 66 | A Novel Approach for Invasive Weeds and Vegetation Surveys Using UAS and Artificial Intelligence **2018**, | | 2 |
| 65 | Design and Testing of a Recycled 3D Printed and Foldable Unmanned Aerial Vehicle for Remote Sensing **2018**, | | 3 |
| 64 | A Framework for Vision-Based Multiple Target Finding and Action Using Multirotor UAVs **2018**, | | 4 |
| 63 | Multi and hyperspectral UAV remote sensing: Grapevine phylloxera detection in vineyards **2018**, | | 4 |
| 62 | A UAV system for autonomous target detection and gas sensing **2017**, | | 19 |
| 61 | UAV tracking and following a ground target under motion and localisation uncertainty **2017**, | | 7 |
| 60 | Visual servoing of a quadrotor with suspended slung load for object detection and tracking **2017**, | | 2 |
| 59 | Autonomous UAV with vision based on-board decision making for remote sensing and precision agriculture **2017**, | | 38 |
| 58 | Determination of the vertical profile of particle number concentration adjacent to a motorway using an unmanned aerial vehicle. *Environmental Pollution*, **2017**, 230, 134-142 | 9.3 | 31 |
| 57 | A Methodology to Monitor Airborne PM Dust Particles Using a Small Unmanned Aerial Vehicle. *Sensors*, **2017**, 17, | 3.8 | 36 |
| 56 | Towards the Automatic Detection of Pre-Existing Termite Mounds through UAS and Hyperspectral Imagery. *Sensors*, **2017**, 17, | 3.8 | 5 |

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| 55 | Vision-Based Target Finding and Inspection of a Ground Target Using a Multirotor UAV System. *Sensors*, **2017**, 17, | 3.8 | 21 |
| 54 | MPC controlled multirotor with suspended slung Load: System architecture and visual load detection **2016**, | | 8 |
| 53 | Autonomous UAVs wildlife detection using thermal imaging, predictive navigation and computer vision **2016**, | | 22 |
| 52 | Enabling UAV Navigation with Sensor and Environmental Uncertainty in Cluttered and GPS-Denied Environments. *Sensors*, **2016**, 16, | 3.8 | 24 |
| 51 | Unmanned Aerial Vehicles (UAVs) and Artificial Intelligence Revolutionizing Wildlife Monitoring and Conservation. *Sensors*, **2016**, 16, | 3.8 | 213 |
| 50 | An Overview of Small Unmanned Aerial Vehicles for Air Quality Measurements: Present Applications and Future Prospectives. *Sensors*, **2016**, 16, | 3.8 | 180 |
| 49 | Development and Validation of a UAV Based System for Air Pollution Measurements. *Sensors*, **2016**, 16, | 3.8 | 94 |
| 48 | **2016**, | | 13 |
| 47 | UAV based target finding and tracking in GPS-denied and cluttered environments **2016**, | | 13 |
| 46 | Modelling, Simulation and Flight Test of a Model Predictive Controlled Multirotor with Heavy Slung Load. *IFAC-PapersOnLine*, **2016**, 49, 182-187 | 0.7 | 16 |
| 45 | Design and flight testing of a bio-inspired plume tracking algorithm for unmanned aerial vehicles **2016**, | | 1 |
| 44 | Uncertainty based online planning for UAV target finding in cluttered and GPS-denied environments **2016**, | | 9 |
| 43 | Development of a robust framework for an outdoor mobile manipulation UAV **2016**, | | 6 |
| 42 | Multi-rotor with suspended load: System Dynamics and Control Toolbox **2015**, | | 7 |
| 41 | Development and integration of a solar powered unmanned aerial vehicle and a wireless sensor network to monitor greenhouse gases. *Sensors*, **2015**, 15, 4072-96 | 3.8 | 87 |
| 40 | Design and flight testing of an integrated solar powered UAV and WSN for remote gas sensing **2015**, | | 13 |
| 39 | Increasing Autonomy Transparency through capability communication in multiple heterogeneous UAV management **2015**, | | 9 |
| 38 | An Automated Emergency Landing System for Fixed-Wing Aircraft: Planning and Control. *Journal of Field Robotics*, **2015**, 32, 1114-1140 | 6.7 | 9 |

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| 37 | Towards the Development of a Low Cost Airborne Sensing System to Monitor Dust Particles after Blasting at Open-Pit Mine Sites. *Sensors*, **2015**, 15, 19667-87 | 3.8 | 83 |
| 36 | A Dynamic Navigation Model for Unmanned Aircraft Systems and an Application to Autonomous Front-On Environmental Sensing and Photography Using Low-Cost Sensor Systems. *Sensors*, **2015**, 15, 21537-53 | 3.8 | 6 |
| 35 | Enabling Aircraft Emergency Landings Using Active Visual Site Detection. *Springer Tracts in Advanced Robotics*, **2015**, 167-181 | 0.5 | 11 |
| 34 | Multi-Objective Optimization Model Test Case Problems. *Intelligent Systems, Control and Automation: Science and Engineering*, **2015**, 123-194 | 0.6 | |
| 33 | **2014**, | | 2 |
| 32 | Nonlinear Actuator Fault Detection for Small-Scale UASs. *Journal of Intelligent and Robotic Systems: Theory and Applications*, **2014**, 73, 557-572 | 2.9 | 0 |
| 31 | Recursive Actuator Fault Detection and Diagnosis for Emergency Landing of UASs. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 2495-2502 | | 2 |
| 30 | Nonlinear Model Predictive Control for a multi-rotor with heavy slung load **2014**, | | 12 |
| 29 | FPGA Implementation of an Evolutionary Algorithm for Autonomous Unmanned Aerial Vehicle On-Board Path Planning. *IEEE Transactions on Evolutionary Computation*, **2013**, 17, 272-281 | 15.6 | 51 |
| 28 | Wind-energy based path planning for Unmanned Aerial Vehicles using Markov Decision Processes **2013**, | | 41 |
| 27 | A UKF-based estimation strategy for actuator fault detection of UASs **2013**, | | 5 |
| 26 | A review of optimization techniques used in the design of fibre composite structures for civil engineering applications. *Materials & Design*, **2012**, 33, 534-544 | | 113 |
| 25 | On parallel hybrid-electric propulsion system for unmanned aerial vehicles. *Progress in Aerospace Sciences*, **2012**, 51, 1-17 | 8.8 | 77 |
| 24 | Robust multidisciplinary UAS design optimisation. *Structural and Multidisciplinary Optimization*, **2012**, 45, 433-450 | 3.6 | 7 |
| 23 | Extending persistent monitoring by combining ocean models and Markov Decision Processes **2012**, | | 6 |
| 22 | **2012**, | | 5 |
| 21 | Advanced Computational Intelligence System for Inverse Aeronautical Design Optimisation **2011**, | | 3 |
| 20 | . *IEEE Transactions on Evolutionary Computation*, **2011**, 15, 133-150 | 15.6 | 32 |

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| 19 | Hybrid-Game Strategies for multi-objective design optimization in engineering. *Computers and Fluids*, **2011**, 47, 189-204 | 2.8 | 26 |
| 18 | Development of an autonomous unmanned aerial system to collect time-stamped samples from the atmosphere and localize potential pathogen sources. *Journal of Field Robotics*, **2011**, 28, 961-976 | 6.7 | 24 |
| 17 | Assessment of the suitability of public mobile data networks for aircraft telemetry and control purposes. *Progress in Aerospace Sciences*, **2011**, 47, 240-248 | 8.8 | 4 |
| 16 | Double-shock control bump design optimization using hybridized evolutionary algorithms. *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, **2011**, 225, 1175-1192 | 0.9 | 5 |
| 15 | Active Transonic Aerofoil Design Optimization Using Robust Multiobjective Evolutionary Algorithms. *Journal of Aircraft*, **2011**, 48, 1084-1094 | 1.6 | 24 |
| 14 | UAS Mission Path Planning System (MPPS) Using Hybrid-Game Coupled to Multi-Objective Optimizer. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2010**, 132, | 1.6 | 16 |
| 13 | Advanced robust design optimization of FRP sandwich floor panels. *IOP Conference Series: Materials Science and Engineering*, **2010**, 10, 012182 | 0.4 | 2 |
| 12 | Reduction environmental effects of civil aircraft through multi-objective flight plan optimisation. *IOP Conference Series: Materials Science and Engineering*, **2010**, 10, 012197 | 0.4 | |
| 11 | Fast reconstruction of aerodynamic shapes using evolutionary algorithms and virtual nash strategies in a CFD design environment. *Journal of Computational and Applied Mathematics*, **2009**, 232, 61-71 | 2.4 | 15 |
| 10 | UAS Mission Path Planning System (MPPS) Using Hybrid-Game Coupled to Multi-Objective Optimiser **2009**, | | 4 |
| 9 | New Aerospace Design Challenges: Robust Multidisciplinary Evolutionary Techniques **2009**, 343-358 | | |
| 8 | Evolutionary Optimisation Methods with Uncertainty for Modern Multidisciplinary Design in Aeronautical Engineering. *Notes on Numerical Fluid Mechanics and Multidisciplinary Design*, **2009**, 271-284 | 0.3 | 9 |
| 7 | Custom power systems and software platforms for wind farms under voltage dips situations **2008**, | | 3 |
| 6 | Computational Fluid Dynamics Analysis of Externally Blown Flap Configuration for Transport Aircraft. *Journal of Aircraft*, **2008**, 45, 172-184 | 1.6 | 6 |
| 5 | Robust evolutionary algorithms for UAV/UCAV aerodynamic and RCS design optimisation. *Computers and Fluids*, **2008**, 37, 547-564 | 2.8 | 25 |
| 4 | Robust design optimisation using multi-objective evolutionary algorithms. *Computers and Fluids*, **2008**, 37, 565-583 | 2.8 | 35 |
| 3 | . *IEEE Aerospace and Electronic Systems Magazine*, **2007**, 22, 29-44 | 2.4 | 4 |
| 2 | Evolutionary methods for multidisciplinary optimization applied to the design of UAV systems *Engineering Optimization*, **2007**, 39, 773-795 | 2 | 2 |

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| 1 | Single and multi-objective UAV aerofoil optimisation via hierarchical asynchronous parallel evolutionary algorithm. *Aeronautical Journal*, **2006**, 110, 659-672 | 0.9 | 6 |