Dr Ing. Jason GAUCI
B.Elec.Eng.(Hons), Ph.D.(Cran.)

PERSONAL INFORMATION

Office: Room 330, Faculty of Engineering, University of Malta, MSD 2080, Malta
Mobile: +356 79844489
Tel: +356 23403136
Email: jason.gauci@um.edu.mt
DOB: 16 May 1983
Nationality: Maltese
ORCID: 0000-0002-8575-3911
LinkedIn: jason-gauci-a8b32321

EMPLOYMENT HISTORY

2021-present Institute of Aerospace Technologies, University of Malta, Malta
Senior lecturer (full-time)
I conduct various research, teaching, supervision, management, dissemination and administration activities within the aerospace/aviation sector.

2016-2021 Institute of Aerospace Technologies, University of Malta, Malta
Lecturer (full-time)
I conduct various research, teaching, supervision, management, dissemination and administration activities related to aerospace.

2019-present Embry-Riddle Aeronautical University, Worldwide Campus, Germany
Adjunct Assistant Professor (part-time)
I deliver a number of online – undergraduate and post-graduate – courses within the College of Aeronautics.

2014-2016 Institute of Aerospace Technologies, University of Malta, Malta
Research Officer III (full-time)
Worked in a collaborative, multinational research environment and was involved in a number of national and EU aerospace-related projects. Was responsible for leading various research activities in each of these projects.
Research areas included: weather conflict avoidance, cockpit display design, and Unmanned Aerial Vehicles.
Activities included: project management, system design and evaluation, technical writing, dissemination, reporting, and proposal writing.

2013-2014 Altran Technologies, Coventry, United Kingdom
Consultant / Systems Engineer (full-time)
Worked within the advanced driver assistance systems (ADAS) team at Jaguar Land Rover (JLR). Was responsible for the delivery of the next generation of embedded driver assistance systems designed to the ISO-26262 standard. These included features for obstacle detection and avoidance, automatic parking, and trailer towing. The role involved collaborations with all the relevant

stakeholders across the business (including suppliers, research, infotainment, design, manufacturing, networks and marketing).
Activities included: system requirements definition, safety analysis, FMEA, CAN network design, debugging and diagnostics, vehicle testing, project planning, and risk/issue management.

2010-2013 Resource Engineering Projects (REP), Worcester, United Kingdom
Software Engineer (full-time)
Worked on several design and verification activities as part of the development of safety-critical software for engine control units designed to the DO-178B standard. Had the opportunity to work at the site of one of our clients in Germany for a short duration of one of the projects. I was also assigned the role of technical lead on one of the projects.
Activities included: code design, requirement and code reviews, static analysis, unit testing, and Hardware-in-the-Loop testing.

2003-2005 Methode Electronics Malta LTD, Mriehel, Malta
Student engineer, Department of Quality Support (Internship)
The company designs and manufactures a range of switches and other devices for a range of automotive manufacturers. I was involved in the design and development of instrumentation and data acquisition equipment to support switch testing.
Activities included: software design (using LabVIEW), electronic design, system installation, testing, calibration and maintenance.

EDUCATION & QUALIFICATIONS

2006-2010 Cranfield University, United Kingdom
PhD, School of Engineering, Department of Aerospace Engineering
Research area: 'Obstacle Detection in Aerodrome Areas through the use of Computer Vision'
The objective of this research was to develop a system for the detection and tracking of generic obstacles around large transport aircraft in order to prevent wingtip collisions during taxi manoeuvers. The system was based on stereovision sensor technology.

2001-2005 University of Malta, Malta
BEng (Hons) Electrical Engineering (1st class honours)
Core subjects included control systems, analog and digital electronics, signal and image processing, instrumentation, computer programming, computer architecture, microprocessors and microcontrollers, real-time operating systems, communication systems, electromagnetic theory, computer networks, artificial intelligence**,** electrical power, mathematics.
Dissertation: '**A Rotary Switch Testing Jig**'
Project involved hardware and software development of a LabVIEW-driven data acquisition system to test automotive ignition switches according to customer specifications. This project was sponsored by Methode Electronics Malta Ltd.

1994-2001 St. Aloysius' College, Malta
GCSE 'A' level: Mathematics (A), Physics (A)
GCSE 'O' level: 11 subjects

CONTINUOUS PROFESSIONAL DEVELOPMENT

2022	Aviation's Sustainability Future: Building Your Vision *RAVEN Learning Experience Platform*
2021	Understanding Intellectual Property *Knowledge Transfer Office, University of Malta*
2020	Train the Trainer *Erasmus+ Dig-IT project*
2020	The Data Science Course 2020: Complete Data Science Bootcamp *Udemy*
2020	Zoom training/Face-to-Face/Blended Certification within Canvas *Embry-Riddle Aeronautical University*
2020	Night rating *Malta School of Flying*
2019	Teaching at ERAU Worldwide, Teaching with an LMS, Supporting online learners *Embry-Riddle Aeronautical University*
2017-2019	Private Pilot License (PPL) *Malta School of Flying*
2018	Online Teaching and Learning *University of Malta*
2016-2017	Continuous Professional Development Programme *University of Malta*
2017	Safety Assessment of Aircraft Systems *RGW Cherry and Associates Limited*

RESEARCH INTERESTS

- Unmanned Aerial Vehicles (UAVs)
- Machine Learning for aviation applications
- Air Traffic Management (ATM) and avionics
- Human-computer interaction
- Human factors and aviation training

RESEARCH GRANTS

The following table summarises the research grants that I have been awarded.

Year	Funding body	Grant agreement	Title	Grant (Eur)
2022	WES Trade Ltd.	2022_068_UM-WEST	BAT: An innovative navigation system for UAVs based on inertial systems	46.4k
2022	Malta Council for Science and Technology (MCST)	IPAS-2022-004	Integration of unmanned aircraft systems in	4k

	International Partnership Award Scheme (IPAS+)		controlled and uncontrolled airspace	
2019	Transdisciplinary Research and Knowledge Exchange Complex (TRAKE), University of Malta	n/a	Site Selection and Trajectory Generation for Emergency Landings of Commercial Aircraft (STELA)	140k
2019	Research Excellence Fund, Research Innovation and Development Trust (RIDT), University of Malta	201902	Human-in-the-loop aircraft taxiing optimisation using autonomous tow trucks	60k
2019	Malta Council for Science and Technology (MCST) Fusion Technology Development Programme (TDP)	R&I-2017-032-T	Active Control Sidestick for Aircraft Ground Operations (ACSAGO)	184k
2018	Malta Council for Science and Technology (MCST) Fusion Technology Development Programme (TDP)	R&I-2016-033V	Situation Awareness and Traffic Management for Engineless Taxiing (SATMET)	194k

PARTICIPATION IN RESEARCH PROJECTS

I have been involved in over 12 R&I projects during which I have collaborated with several local and foreign partners from academia, research centres, industry and government, including: Thales Avionics (France), Cranfield University (UK), Stirling Dynamics (UK), NLR (Netherlands), ONERA (France), CIRA (Italy), TU Delft (Netherlands), Uninettuno (Italy), Deep Blue (Italy), ENAC (France), HandsOn Systems (Malta), QuAero (Malta), Malta Air Traffic Services (Malta), Malta Enterprise (Malta), Malta School of Flying (Malta) and Malta International Airport (Malta).

<u>R&I projects funded by the University of Malta</u>

2019-present Title: Site Selection and Trajectory Generation for Emergency Landings of Commercial Aircraft (STELA)
Value: €140k
Role: **Principal investigator**

2019-2021 Title: Human-in-the-loop aircraft taxiing optimisation using autonomous tow trucks
Grant agreement: 201902
Value: €60k
Role: **Principal investigator**

<u>Nationally-funded R&I projects</u>

2022-present Title: Integration of unmanned aircraft systems in controlled and uncontrolled airspace (INTEGRA)
Funding body: Malta Council for Science and Technology
Grant agreement: IPAS-2022-004
Value: €4k
Role: **Principal investigator**

2020-present Title: Buoy Eau Air (BEA)
Funding body: Malta Council for Science and Technology
Grant agreement: R&I-2018-005-T
Role: Co-investigator

2019-present Title: Smart Artificial Pilot (SMARTAP)
Funding body: Malta Council for Science and Technology
Grant agreement: R&I-2018-010-T
UM share: €143k
Role: Co-investigator

2019-2022 Title: Active Control Sidestick for Aircraft Ground Operations (ACSAGO)
Funding body: Malta Council for Science and Technology
Grant agreement: R&I-2017-032-T
UM share: €135k
Role: **Principal investigator**

2018-2020 Title: Situation Awareness and Traffic Management for Engineless Taxiing (SATMET)
Funding body: Malta Council for Science and Technology
Grant agreement: R&I-2016-033-T
UM share: €143k
Role: **Principal investigator**

2016-2018 Title: TOUCHFLIGHT2 / ePM
Funding body: Malta Council for Science and Technology
Grant agreement: R&I-2015-015-T
UM share: €141k
Role: Co-investigator

2016-2017 Title: Situation Awareness and Guidance for RPAS Operations (SAGRO)
Funding body: Malta Council for Science and Technology
Grant agreement: R&I-2013-042
UM share: €90k
Role: Co-investigator

2014-2015 Title: TOUCHFLIGHT
Funding body: Malta Council for Science and Technology
Grant agreement: R&I-2012-065
Role: Co-investigator

European-funded R&I projects

2020-present Title: Skilling, upskilling and reskilling in the future air transport (SKILL-UP)
Funding body: Erasmus+ Programme (KA2)
Grant agreement: 408540-EPP-1-2019-1-IT-EPPKA2-SSA
UM share: €80k

Role: Co-investigator

2014-2016 Title: Advanced Cockpit for Reduction of Stress and Workload (ACROSS)
Funding body: EU 7th Framework Programme (FP7)
UM share: €450k
Role: Co-investigator

2013-2016 Title: RPAS ATM Integration Demonstration (RAID)
Funding body: SESAR Joint Undertaking
Role: Co-investigator

2005-2009 Title: FLYSAFE
Funding body: EU 6th Framework Programme (FP6)
Role: Co-investigator

Other R&I projects

2022-present Title: BAT: An innovative navigation system for UAVs based on inertial systems
Funding body: WES Trade Ltd.
Grant agreement: 2022_068_UM-WEST
UM share: €46.4k
Role: Co-investigator

AWARDS

2020 Award for Scientific Initiative (runner-up)
Malta Intellectual Property Awards
Project: Automatic Aerodrome Taxiway Line Detection and Cross-Track Error Estimation using Computer Vision Techniques
Award shared with Mr Aman Batra

2017 Award for Scientific Innovation (runner-up)
Malta Innovations Awards
Project: TOUCHFLIGHT
Award shared with Prof. Ing. David Zammit Mangion, Captain Alan Muscat and Captain Karl Falzon

PUBLICATIONS

1. Koopman C., **Gauci J.**, Muscat A., Dingli A. & Zammit-Mangion D., 'Real-time Aerodrome Detection using Deep Learning Methods', IEEE/AIAA 41st Digital Avionics Systems Conference, Portsmouth, VA, USA, 18-22 September 2022.
2. Zaninotto S., **Gauci J.** & Zammit B., 'An Engineless Taxi Operations System using Battery-operated Autonomous Tow Trucks', 33rd Congress of the International Council of the Aeronautical Sciences, Stockholm, Sweden, 4-9 September 2022.
3. **Gauci J.**, Galea M. & Muscat A., 'Human-in-the-loop Evaluation of an Active Sidestick Control System for Aircraft Taxiing', AIAA Aviation Forum, Chicago, Illinois & Online, 27 June-1 July, 2022.
4. Rahman A., Zammit B. & **Gauci J.**, 'A Fuzzy-based Site Selection Framework for Emergency Landings of Commercial Aircraft', AIAA Aviation Forum, Chicago, Illinois & Online, 27 June-1 July, 2022.

5. Theuma K., Chircop K., **Gauci J.**, & Zammit-Mangion D., 'Enhancing Sparse LiDAR Data Captured on an Airfield Using 3D Aircraft Models', International conference on Target and Background Modeling & Simulation, Bagnères-de-Bigorre, France, 7-10 June, 2022.
6. Zaninotto S., **Gauci J.** & Zammit B., 'A Testbed for Performance Analysis of Algorithms for Engineless Taxiing with Autonomous Tow Trucks', IEEE/AIAA 40th Digital Avionics Systems Conference, San Antonio, Texas, USA, 3-7 October 2021. *(Best of session award)*.
7. Singh D. S., **Gauci J.**, Dingli A., Muscat A., & Zammit-Mangion D., 'Automated Aircraft Stall Recovery using Reinforcement Learning and Supervised Learning Techniques', IEEE/AIAA 40th Digital Avionics Systems Conference, San Antonio, Texas, USA, 3-7 October 2021.
8. **Gauci J.**, De Carlo J., Golfetti A., Tomasello P., Napoletano L., Turhan U., Uslu S., Yörük B., Güngören M., Gomes-Mota J., Matton N., Romano E., Feletig S., Geraldes D., Manaia F., Macedo M., Ribeiro A. & Drogoul F., 'From education and training to the workplace: Gaps and challenges in aviation', Ergonomics & Human Factors 2021, Online, 19-21 April 2021.
9. Galea M., Zammit Mangion D., Muscat M., Thornton I. & **Gauci J.**, 'An Active Side Stick Controller for Aircraft Ground Operations', AIAA SciTech Forum, Online, 11-15 & 19-21 January 2021, doi: 10.2514/6.2021-0760.
10. Batra A. & **Gauci J.**, 'Aerodrome Taxiway Line Detection and Cross-Track Error Estimation Using Computer Vision Techniques', IEEE Aerospace Conference, Big Sky, Montana, USA, 7-14 March 2020, doi: 10.1109/AERO47225.2020.9172787.
11. Theuma K., **Gauci J.**, Chircop K. & Zammit-Mangion D., 'Fusion of Point Clouds for Obstacle Tracking during Airport Ground Operations', AIAA SciTech Forum, Orlando, Florida, 6-10 January 2020, doi: 10.2514/6.2020-1682.
12. Theuma K., Zammit-Mangion D., **Gauci J.** & Chircop K., 'Implementation and Evaluation of a Multi-Model Filter for Aircraft Ground Operations'. Journal of Air Transportation, 2019, pp. 1-11, doi: 10.2514/1.D0144.
13. Zaninotto S., **Gauci J.**, Farrugia G. & Debattista J., 'Design of a Human-in-the-Loop Aircraft Taxi Optimisation System Using Autonomous Tow Trucks'. AIAA Aviation Forum, Dallas, Texas, 17-21 June 2019.
14. Theuma K., Zammit-Mangion D., **Gauci J.** & Chircop K., 'A Particle Filter for Ground Obstacle Tracking in the Airfield'. AIAA SciTech Forum, San Diego, California, USA, 7-11 January 2019.
15. Jasra S. K., **Gauci J.**, Muscat A., Valentino G., Zammit-Mangion D. & Camilleri R., 'Literature review of machine learning techniques to analyse flight data'. AEGATS '18, Toulouse, France, 23-25 October 2018.
16. **Gauci J.**, Theuma K., Muscat A., Zammit-Mangion D., 'Evaluation of a Multimodal Interface for Pilot Interaction with Avionic Systems'. 37th AIAA/IEEE Digital Avionics Systems Conference (DASC), London, England, UK, 23-27 September 2018.
17. **Gauci J.**, Theuma, K., Archer, R., Grech, R., Zammit-Mangion, D., 'Ground and Flight Testing of a Multi-Sensor Obstacle Detection and Tracking System for RPAS Situation Awareness'. 31st Congress of the International Council of the Aeronautical Sciences, Belo Horizonte, Brazil, 9-14 September 2018.
18. Galea M., Zammit B. and **Gauci J.**, 'Design of a Multi-Layer UAV Path Planner for Cluttered Environments'. International Conference on Unmanned Aircraft Systems ICUAS 2018, Dallas, USA, 12-15 June 2018.
19. Theuma K., Chircop K., **Gauci J.** & Zammit-Mangion D., 'Implementation and Evaluation of a Multi-Model Filter for Aircraft Ground Operations'. AIAA Guidance, Navigation, and Control Conference, Florida, USA, 8-12 January 2018.

20. **Gauci J.**, Xuereb M., Muscat A. & Zammit-Mangion D., 'Multi-modal Interaction between Pilots and Avionic Systems on-board Large Commercial Aircraft'. 19th International Conference on Human-Computer Interaction, Vancouver, Canada, 9-14 July 2017.
21. Theuma K., Archer R., Chircop K., Zammit-Mangion D. & **Gauci J.**, 'Multi-Sensor Obstacle Detection and Tracking for RPAS Situation Awareness and Guidance'. Euro GNC - 4th CEAS Specialist Conference on Guidance, Navigation & Control, Warsaw, Poland, 25-27 April 2017.
22. **Gauci J.**, Theuma K. & Zammit-Mangion D., 'Pilot Evaluation of a Decision Support Tool for Weather and Terrain Avoidance during Departure', AIAA AVIATION 2016, Washington, D.C., 13-17 June 2016.
23. Filippone E., Di Vito V., Torrano G., Taurino D., Ferreira A., Zammit-Mangion D. & **Gauci J.**, 'RPAS – ATM Integration Demonstration – Real-Time Simulation Results'. 15th AIAA Aviation Technology, Integration, and Operations Conference, Dallas, Texas, USA, 22-26 June 2015.
24. Cauchi N., Theuma K., Zammit C., **Gauci J.** & Zammit-Mangion D., 'A Decision Support Tool for Weather and Terrain Avoidance during Departure'. 34th Digital Avionics Systems Conference, Prague, Czech Republic, 13-17 September 2015 *(Best paper of session)*.
25. **Gauci J.**, Cauchi N., Theuma K., Muscat A. & Zammit-Mangion D., 'Design and Evaluation of a Touch Screen Concept for Pilot Interaction with Avionic Systems'. 34th Digital Avionics Systems Conference, Prague, Czech Republic, 13-17 September 2015.
26. Jedruszek M., **Gauci J.**, Muscat A. & Zammit-Mangion D., 'A new HMI for Aircraft Guidance using Touch Technologies', 31st EAAP Conference on Aviation Psychology: Facilitating Change(s), Valletta, Malta, 22-26 September 2014.
27. **Gauci J.**, Zammit-Mangion D. & Sabatini R., 'Correspondence and Clustering Methods for Image-Based Wing-Tip Collision Avoidance Techniques'. 28th Congress of the International Council of the Aeronautical Sciences, Brisbane, Australia, 23-28 September 2012.
28. **Gauci J.** & Zammit-Mangion D., 'Correspondence and Clustering Techniques of a Stereo Vision System for the Detection of Obstacles around Aircraft in Aerodrome Areas'. 27th Congress of the International Council of the Aeronautical Sciences, Nice, France, 19-24 September 2010.
29. **Gauci J.** & Zammit-Mangion D., 'Obstacle Detection Around Aircraft on Ramps and Taxiways Through the Use of Computer Vision'. AIAA Guidance, Navigation, and Control Conference, Chicago, Illinois, 10-13 August 2009.
30. Szasz S., **Gauci J.**, Zammit-Mangion D., Zammit B., Sammut A. & Harris D., 'Design of Experiment for the Pilot Evaluation of an Airborne Runway Incursion Alerting System'. 26th Congress of the International Council of the Aeronautical Sciences, Anchorage, Alaska, 14-19 September 2008.
31. **Gauci J.** & Zammit-Mangion D., 'A Rapid Scenario Generation Tool for Repeatable Simulated Traffic Conflicts in Flight Simulation'. 26th Congress of the International Council of the Aeronautical Sciences, Anchorage, Alaska, 14-19 September 2008.
32. **Gauci J.** & Zammit-Mangion D., 'Setup considerations for calibration of a stereovision system for long range obstacle detection'. 3rd International Symposium on Communications, Control and Signal Processing, St Julians, Malta, 12-14 March 2008.

PATENT APPLICATIONS

1. **Gauci, J.**, Galea, M. Muscat, A., Thornton, I., Zammit-Mangion, D. *A method*. Application number GB 2009466.0. Filed 22/6/2020. Patent pending.

2. **Gauci, J.**, Batra, A. *Method and system for aerodrome taxiway surface marking detection.* Patent number US 11335009 B2. Filed 27/4/2020. Published 17/05/2022.

3. **Gauci, J.**, Zammit-Mangion, D., Muscat, A. *Display screen or portion thereof with animated graphical user interface*. Patent number USD783680. Granted 11/04/2017.

4. **Gauci, J.**, Zammit-Mangion, D., Muscat, A. *Display screen or portion thereof with animated graphical user interface*. Patent number USD773532. Granted 6/12/2016.

5. **Gauci, J.**, Zammit-Mangion, D., Muscat, A. *Display screen or portion thereof with animated graphical user interface*. Patent number USD772935. Granted 29/11/2016.

PRESENTATION OF ACADEMIC WORK AT SCIENTIFIC CONFERENCES

1. 'A Fuzzy-based Site Selection Framework for Emergency Landings of Commercial Aircraft', AIAA Aviation Forum, Chicago, Illinois & Online, 27 June-1 July, 2022.

2. 'Human-in-the-loop Evaluation of an Active Sidestick Control System for Aircraft Taxiing', AIAA Aviation Forum, Chicago, Illinois & Online, 27 June-1 July, 2022.

3. 'Evaluation of a Multimodal Interface for Pilot Interaction with Avionic Systems'. 37th AIAA/IEEE Digital Avionics Systems Conference (DASC), London, England, UK, 23-27 September 2018.

4. 'Pilot Evaluation of a Decision Support Tool for Weather and Terrain Avoidance during Departure'. AIAA AVIATION 2016, Washington, D.C., 13-17 June 2016.

5. 'Design and Evaluation of a Touch Screen Concept for Pilot Interaction with Avionic Systems'. 34th Digital Avionics Systems Conference, Prague, Czech Republic, 13-17 September 2015.

6. 'Obstacle Detection Around Aircraft on Ramps and Taxiways Through the Use of Computer Vision'. AIAA Guidance, Navigation, and Control Conference, Chicago, Illinois, 10-13 August 2009.

7. 'A Rapid Scenario Generation Tool for Repeatable Simulated Traffic Conflicts in Flight Simulation'. 26th Congress of the International Council of the Aeronautical Sciences, Anchorage, Alaska, 14-19 September 2008.

PRESENTATION OF WORK AT OTHER INTERNATIONAL EVENTS

1. 'Flight deck automation: AI, HMI, weather and their impact on pilots'. World Aviation Festival, London, UK, 5-7 September 2018.

2. 'Final Results of RPAS ATM Integration Demonstration (RAID)'. RPAS CivOps 2016, Brussels, Belgium, 6-7 December 2016.

3. ‘RPAS ATM Integration Demonstration (RAID) – Real-time simulation results & Flight test planning’. RPAS 2015, Brussels, Belgium, 22-25 June 2015.

SUPERVISION

MSc in Aerospace (by Research)

Student	Title	Status	Role
Dheerendra Singh Tomar	Aerodynamic Stall Detection and Recovery Using Artificial Intelligence Techniques	Completed 2022	Principal supervisor
Aman Batra	Development of image processing algorithms for taxiway line detection and tracking	Completed 2020	Principal supervisor
Marlon Galea	Design of a Sense-and-Avoid (SAA) System for Small Unmanned Air Systems (UAS)	Completed 2018	Co-supervisor

PhD in Aerospace

Student	Title	Status	Role
Stefano Zaninotto	Human-in-the-Loop Aircraft Taxiing Optimisation Using Autonomous Tow Trucks	Ongoing	Principal supervisor
Kevin Theuma	Multi-Sensor Obstacle Detection and Tracking for Aircraft Ground Operations	Completed 2021	Co-supervisor

Other

I supervise various research support officers working on different R&I projects. I have also supervised several foreign students who have done an internship with the Institute of Aerospace Technologies.

TEACHING

I have experience in various teaching modalities, including face-to-face, online (synchronous and asynchronous) and blended.

University of Malta

AET1211 – Avionics for Technicians (Undergraduate), Face-to-face
AET1231 – ATM and Theory of Navigation (Undergraduate), Face-to-face
AET2213 – Communication, Navigation and Surveillance (Undergraduate), Online
AET3111 – Avionics (Undergraduate), Online

Embry-Riddle Aeronautical University (Worldwide)

ENGR 101 – Introduction to Engineering (Undergraduate), Online
RSCH 665 – Statistical Analysis (Postgraduate), Online and blended
UNSY 307 – Unmanned Systems Networking, Online
UNSY 318 – Unmanned Aircraft Systems Robotics, Online

PUBLIC OUTREACH AND ENGAGEMENT

- Participation in TV and radio programmes (TVM, CAMPUS FM, Gadgets show, etc.)
- Publication of several articles on the University of Malta's Newspoint portal, THINK magazine and local news portals
- Presentation of academic work at various public dissemination events, including ESPLORA and the Maltese parliament (Science in the House 2019)
- Exhibition of academic work at ESPLORA Family Science Days 2019 and MRO Technology and Gadgets Expo
- Job shadowing of secondary school students
- Participation in the Teen Science Café (St Benedict College, Kirkop Middle School, 2018)
- Organisation of a plane building activity for children and their parents
- Organisation of public webinars on aviation/aerospace-related topics
- Dissemination of academic work on the social media of the Institute of Aerospace Technologies

ADMINISTRATION ACTIVITIES

2022-present Member of the Digital Avionics Technical Committee (DATC) of the AIAA
2020-present Technical Committee Member of the International Conference of Intelligent Robotic and Control Engineering (IRCE)
2017-present Member of the Board of Studies of the Diploma in Aviation Maintenance, Institute of Aerospace Technologies
2016-present Member of the PhD committee, Institute of Aerospace Technologies
2016-present Member of the Postgraduate sub-committee, Institute of Aerospace Technologies
2016-2020 Member of the Board of Studies for the Higher Diploma in Aviation, Institute of Aerospace Technologies
2015-present Member of the Board, Institute of Aerospace Technologies
2015-2017 Website administrator, Institute of Aerospace Technologies

TECHNICAL SKILLS

Software: Zoom, Canvas**,** Moodle, WISEflow, Microsoft Teams, Google Meet, Microsoft Visual Studio, Microsoft Office (Word, Excel, Project, Visio), X-Plane, Kdenlive, StatCrunch, Google SketchUp, Webex, Adobe (Acrobat Reader, Photoshop)

Coding: Matlab & Simulink, C/C++, Python, Java, VAPS XT, Assembly, Ada, LabVIEW, Visual Basic, XML

Other: Electrician's License 'A' (Authorisation no: 4654)
Private Pilot License (PPL)
Drone pilot license (A1/A3 and A2)

PROFESSIONAL MEMBERSHIPS & ASSOCIATIONS

- Senior Member of the American Institute of Aeronautics and Astronautics (AIAA)
- Member of the Royal Aeronautical Society (MRAeS)

- Member of the University of Malta Academic Staff Association (UMASA)
- Member of the Air Transport and Aeronautics Education and Research Association (ATAERA)

LANGUAGES

- English (fluent)
- Maltese (native)
- Italian (good)
- French (basic)

ACTIVITES AND INTERESTS

- Flying
- Squash
- Running
- Reading
- Traveling
- Scuba diving

REFEREES

1. Prof. Ing. David Zammit Mangion, Director of the Institute of Aerospace Technologies and Professor of the Department of Electronic Systems Engineering, Faculty of Engineering, University of Malta, Malta, Tel: +356 79058533, Email: david.zammit-mangion@um.edu.mt

2. Mr Chris Janke, Assistant Professor, College of Aeronautics, Embry-Riddle Aeronautical University, Program Coordinator for Bachelor of Science in Unmanned Systems Applications, Germany, Tel: +49 (172) 8686 972, Email: jankec@erau.edu

3. Mr William J. Muldoon, Vice Chancellor of Campus Operations (Worldwide Campus) and Managing Director of Embry-Riddle Europe, Germany, Tel: +49 (0)6303.999.8708, Email: muldoonw@erau.edu

4. Mrs Susan Girling, Software Manager at GE Aviation, UK, Tel: +44 1905757382 / 07791343086, Email: susan.girling1@btopenworld.com