CURRICULUM VITAE

Full Name: Dr. Thomas Eliot Kent
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Department of Computer Science
Merchant Ventures Building
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PRESENT APPOINTMENT

Senior Research Associate 2018
Department of Computer Science, University of Bristol
Supervisor: Prof. Arthur Richards
Project: Thales Bristol Partnership in Hybrid Autonomous Systems Engineering

PREVIOUS APPOINTMENTS

Research Associate 2015
Bristol Robotics Laboratory, University of Bristol
Supervisor: Prof. Arthur Richards
Project: Venturer project, Decision making for driverless cars

ACADEMIC QUALIFICATIONS

PhD University of Bristol, Aerospace Engineering 2015
Dissertation: "Optimal Routing for Commercial Formation Flight"
Supervisor: Prof. Arthur Richards

MA University of Edinburgh, Department of Mathematics 2011
Master of Arts with Honours Pure Mathematics
Upper second class

PUBLICATIONS

Thesis

Kent, T. E. Optimal Routing and Assignment for Commercial Formation Flight. (University of Bristol, 2015).

Refereed Journal Publications

Kent, T. E. & Richards, A. G. Analytic Approach to Optimal Routing for Commercial Formation Flight. Journal of Guidance Control and Dynamics, 38, 1872–1884 (2015).

Kent, T., Pipe, A., Richards, A., Hutchinson, J., & Schuster, W. A Connected Autonomous Vehicle Testbed: Capabilities, Experimental Processes and Lessons Learned. Automation, *1*, 17–33, 2020

Kent, T., Richards, A. The Potential of Formation Flight for Commercial Aviation: Three Case Studies, Journal of Aircraft*, (Accepted awaiting publication)*

Refereed Conference Publications

Kent, T. E. & Richards, A. G. A Geometric Approach to Optimal Routing for Commercial Formation Flight. in AIAA Guidance, Navigation, and Control Conference, 2012.

Kent, T. E. & Richards, A. G. On Optimal Routing for Commercial Formation Flight. in AIAA Guidance, Navigation, and Control Conference, 2013.

Kent, T. E. & Richards, A. G. Accounting for the effect of ground delay on commercial formation flight. in UKACC International Conference on Control, pages 104–109, 2014.

Kent, T. E. & Richards, A. G. Decentralised multi-demic evolutionary approach to the dynamic multi-agent travelling salesman problem. in Genetic and Evolutionary Computation Conference, GECCO '19, pages 147–148, 2019.

Kent, T. E., Richards, A. G, Johnson, A. Single-Agent Polices for the Multi-Agent Persistent Surveillance Problem via Artificial Heterogeneity, European Conference on Multi-Agent Systems, EUMAS 2020, (*delayed conference*)

PRESENTATIONS

Seminars

Collective Dynamics Seminar - Ignorance is bliss: the role of noise and heterogeneity in training and deployment of: Single Agent Policies for the Multi-Agent Persistent Surveillance Problem, 2019

Conference Oral Presentations

Kent, T. E. & Richards, A. G. A Geometric Approach to Optimal Routing for Commercial Formation Flight. in AIAA Guidance, Navigation, and Control Conference, 2012. *(best paper in session award)*

Kent, T. E. & Richards, A. G. On Optimal Routing for Commercial Formation Flight. in AIAA Guidance, Navigation, and Control Conference, 2013.

Kent, T. E. & Richards, A. G. Accounting for the effect of ground delay on commercial formation flight. in UKACC International Conference on Control, pages 104–109, 2014.

TEACHING EXPERIENCE

PhD Supervision

Student: Karam Sofarov 2016-Present
Title: The impact of autonomous vehicles on traffic capacity at an intersection

MSc Supervision

Student: Xingyu Guo 2020-Present
Title: Learning model-based driving behaviour in micro-traffic simulations

Student: Anas Shrinah 2017
Title: Fail safe motion planning for driverless cars

Student: Christos Sevastopoulos 2017
Title: Decision making in Autonomous Vehicles: Investigation of Traffic light and Pedestrian scenarios using two controllers

Student: Jian Jiao 2016
Title: Simulation and Validation of locomotion model for an Electric POD: Reaction to Pedestrians and Other objects

PROFESSIONAL SERVICE

Peer reviewed articles for:

CEAS Aeronautical Journal
The Aeronautical Journal
Journal of Applied Sciences MDPI
Journal of Aerospace Engineering
Robotics MDPI
European Control Conference
Aerospace Engineering and Aerospace Technology

COMPUTER SKILLS

Programming

Python, C/C++, MATLAB, JavaScript, R

Applications

ROS, AMPL, Git, Latex, TensorFlow

Platforms

Linux, OSX, Windows, High Performance Computing

REFERENCES

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Professor Eddie Wilson, Chair in Intelligent Transport Systems
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