CURRICULUM VITAE

Full Name: Dr. Thomas Eliot Kent

Date of Birth: 11/04/1989

Phone number: (+44)7828800229 Email: Thomas.Kent@Bristol.ac.uk Department of Computer Science Merchant Ventures Building University of Bristol Bristol, UK, BS8 1UB

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

2011

Dissertation: "Optimal Routing for Commercial Formation Flight"

Supervisor: Prof. Arthur Richards

MA University of Edinburgh, Department of Mathematics

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. J. Guid. Control. Dyn. 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

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.

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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Email: arthur.richards@bristol.ac.uk

Professor Eddie Wilson, Chair in Intelligent Transport Systems

Department of Engineering Mathematics

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