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About

Jeremy Baxter is a part-time member of the **Poynting Institute (http://www.birmingham.ac.uk/poynting)** at the University of Birmingham and a Lead Researcher at QinetiQ (Malvern).

Jeremy has carried out research in Autonomous and multi-agent systems for the past twenty years being interested in a wide range of planning and reactive execution systems. He has carried out research on multi-vehicle co-operation for umnanned air vehicles as well as path planning and obstacle avoidance for ground vehicles.

In particular his work has supported the UK Ministry of Defence (MOD). His team demonstrated the first system capable of allowing a fast jet pilot to control four UAVs during **test flights in May 2007 (http://www.qinetiq.com/home/newsroom/news_releases_homepage/2007/2nd_quarter/World_first_as_fast_jet_pilot_directs_multiple_unmanned_aircraft.html)**. The blog in **Aviation Week is viewed here (http://www.aviationweek.com/aw/blogs/defense/index.jsp?plckController=Blog&plckBlogPage=BlogViewPost&newspaperUserId=27ec4a53-dcc8-42d0-bd3a-01329aef79a7&plckPostId=Blog%3A27ec4a53-dcc8-42d0-bd3a-01329aef79a7Post%3A8124883f-4659-470c-8ca8-958671898e09&plckScript=blogScript&plckElementId=blogDest)**.

Jeremy provided the reasoning software for Taranis UCAV demonstrator due to fly in Australia in 2011.

- **http://www.qinetiq.com/home/newsroom/news_releases_homepage/2010/3rd_quarter/taranis_rollout.html (http://www.qinetiq.com/home/newsroom/news_releases_homepage/2010/3rd_quarter/taranis_rollout.html)**
- **http://www.airforce-technology.com/projects/tanaris/ (http://www.airforce-technology.com/projects/tanaris/)**

Biography

Dr Jeremy Baxter is a Lead Researcher in the UAVs and Autonomous Systems Group. Jeremy gained a first class honours degree in Engineering from Durham in 1991and a Ph.D. in Fuzzy Logic Control of Automated Vehicles (also from Durham University) in 1994.

Jeremy joined QinetiQ (DERA) in 1994 and his initial work focussed on the application of Artificial Intelligence techniques to battlefield simulation and the development of Multi Agent systems. This included the development of a robust planning and execution framework for groups of vehicles, capable of re-organising in the face of failures and losses. From 2001 to 2003 he was responsible for providing the autonomous navigation component of the Unmanned Ground Vehicle Demonstrator program.

Since 2002 he has lead a team developing cooperative behaviours for groups of Unmanned Combat Air Vehicles. This included numerous high fidelity synthetic environment trials, test flights on the QinetiQ Surrogate UAV in 2006/2007 and being the lead designer for the Reasoning layer of the MoD UCAV demonstrator system, Taranis.

In 2011 he started a part time appointment researching robotics and autonomy in the Poynting institute at the University of Brimingham.

Jeremy is the principal author of several scientific papers on agent based decision-making and is a Chartered Engineer and Fellow of the Institute of Engineering and Technology

Publications

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