Dr Stuart Crawshaw

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Address:	24 Woodley Avenue Thornton Cleveleys Lancashire FY5 4EJ	Date of birth: Nationality:	30 Jan 1973 British
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Graduate & Post-graduate qualifications

PhD (Cambridge University Engineering Dept.) **Oct '96 to Mar '01**

Thesis title: *Control of systems with actuator nonlinearities* May '00

Other publications:

Local stability analysis of systems with saturation and deadzone nonlinearities (primary author)
IEEE Conference on Decision and Control, Tampa, Florida, USA Dec '98

Local stability analysis of nonlinear systems (sole author)
IEEE Conference on Decision and Control, Phoenix, Arizona, USA Dec '99

Anti-windup synthesis for guaranteed $\mathcal{L}_2$ performance (primary author)
IEEE Conference on Decision and Control, Sydney, Australia Dec '00

MA MEng (Trinity College, Cambridge) **Oct '92 to June '96**

Course titles: *Engineering* (two years)
Electrical and Information Sciences (two years)

Final year project: *System identification and active control of a model helicopter*

Engineering experience and recent employment

Synoptics Ltd, Cambridge (temporary, part-time) Sept '00 to Nov '00
Assembly, calibration and testing of PC-based imaging systems

Cambridge Gliding Club Ltd. (seasonal, part-time) June '00 to Sept '00
Winch launching of gliders

Cambridge University Engineering Dept. (occasional) Oct '97 to Jan '01
Undergraduate supervising (small group teaching) and demonstrating (practical experiments)

Defence Engineering & Science Group "Student Engineer" scheme **Oct '91 to Sept '95**

IEE accredited, and partially fulfilling the requirements for Chartered Engineer status.

Placements and short courses attended:

Student Engineer Training Centre, Farnborough Oct '91 to July '92
General engineering, design, communication skills

Defence Test & Evaluation Organisation, Pyestock July '92 to Sept '92
Quality assurance

Design seminar April '93

Defence Research Agency, Bedford June '93 to Aug '93
Research and development

Army Base Repair Organisation, Old Dalby June '94 to Aug '94
Installation, commissioning

British Aerospace plc, Warton July '95 to Sept '95
Production, commercial awareness

Reliability and Maintainability seminar Sept '95

Primary and Secondary education

Rossall School, Fleetwood, Lancs **Sept '89 to June '91**
4 "A" levels at grade A, plus 1 Special paper and 2 STEP papers

Rossall School, Fleetwood, Lancs **Sept '84 to June '89**
10 GCSEs, including 7 at grade A (incl. French & German)

Stanah County Primary School, Thornton, Lancs **Jan '78 to June '84**

Career aspirations

I wish to apply my analytical and practical skills to solve real engineering problems, in a challenging and varied environment, where I can continue my professional development towards and beyond Chartered Engineer status. My previous experience favours the areas of automatic control, defence, aerospace and research, however I am eager to learn about other disciplines and welcome any chance to broaden my horizons.

Information technology and computing skills

I have had a wide exposure to various computer systems since 1980, at home, school, work and university, including:

Unix and Linux: *Matlab*, *Simulink*, *Emacs* and LaTeX.

Microsoft DOS and Windows: *Autocad*, *Matlab*, *Simulink*, *Word*, *Excel* and *Coreldraw*.

Apple Macintosh (general use)

Programming: *M68K assembler*, *Fortran*, *Pascal*, *C*, *Matlab*, *HTML* and LaTeX.

Assembly, installation & maintainance of PC-based Linux and Windows systems

"Hardware-in-the-Loop" prototyping with *dSpace/Simulink*.

Interests and achievements

I have been a keen musician since primary school, usually singing in a choir or playing the trombone.

For most of my time at Cambridge (from 1993 until 2000) I was the organiser and leader of a small jazz band which performed at a number of functions each year.

In 1994 I was one of the three founders of the University of Cambridge Concert Band, which was created to cater for those students who wished to play in a band but were unable or unwilling to audition for any of the alternatives at that time. I served on the band committee for 5 years, nominally as its librarian, and also arranged a band tour in 1997.

In 1996 I founded the Cambridge Marching Band, and served as its Bandmaster and Secretary for nearly 4 years, responsible for almost all of the day-to-day running of the band. Although a strictly amateur band, we performed for a number of public events during this time.

I have been flying gliders since 1991, and hold a British Gliding Association glider pilot's licence.

From 1994 to 1996 I was the student members' representative on the committee of the Cambridge University Gliding Club. I helped with the restructuring of this club, in 1996, to form Cambridge Gliding Club Ltd. and a separate, officially-recognised student-run club, which would continue to use the Cambridge club's site, aircraft and instructors.

As Chairman of the new student club for its first 4 years, I presided over greatly improved student participation in both flying activities and club administration, our first equipment acquisitions and a return to inter-university competitions. Moreover, a substantial growth in members, contrary to current national and international trends, enabled us to negotiate very attractive prices for our members' use of the town club's facilities.

Referees

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