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Employment history

2019 Professor in Robotics & AI
 2017-19 Reader in Robotics
 2016-17 Senior Lecturer in Robotics
 2015-16 Lecturer (level c) in Robotics
 2014-15 Lecturer (level b) in Robotics, Dept. of Engineering Maths, University of Bristol
 2010-14 Research Associate in Robotics, Dept. of Psychology, University of Sheffield
 2005-09 Research Associate in Neuroscience, Dept. of Psychology, University of Sheffield
 2000- Commissioned author in educational publishing

Represented a gap in my academic career, restarting in a different research area

1996-00 Junior Research Fellow in Theoretical Physics, Kings College, University of Cambridge
 1996-98 Research Associate in Theoretical Physics, Imperial College London

Educational history

1999 PhD in Theoretical Physics Cambridge University
 1993 MMath (Part III) Mathematics Distinction Cambridge University
 1992 BA in Mathematics First Cambridge University

Research external funding (£1.4M PI, £3M Co-I)

Date	Funder	Title	Funding
2021-2022	EPSRC Equipment Award	University of Bristol Core Equipment Award	Co-I: £775k Bristol
2020-2021	EPSRC Impact Acceleration	Opening new markets in virtual haptic texture with biomimetic touch (with Ultraleap)	PI: £50k Bristol
2018-2022	Ultraleap CASE conversion	Analysis of an ultrasound haptic display using a tactile probe	PI: £25k Bristol
2018-2022	Google DeepMind CASE conversion	Deep reinforcement learning for robot touch	PI: £25k Bristol
2017-2018	EPSRC Impact Acceleration	Tactile smart grasping system (with Shadow Robot Company)	PI: £50k Bristol
2017-2022	Leverhulme Trust Leadership Award	A biomimetic forebrain for robot touch	PI: £1M Bristol
2016-2017	EPSRC Impact Acceleration	Neuromorphic tactile fingertip (with iniVation)	PI: £20k Bristol
2015-2017	EPSRC First Grant	Tactile superresolution sensing	PI: £100k Bristol
2010-2013	EPSRC Capital award	RAS Capital award	Co-I: £1M Sheffield
2010-2013	EU FP7	Electronic Functional Android Assistant	Co-I: £500k Sheffield
2009-2012	EU FP7	BIOMimetic Technology for vibrissal ACtive Touch (BIOTACT)	Co-I: £750k Sheffield
1996-2000	Kings College Research Fellowship	Embedded and topological defects	PI: £100k Cambridge

Teaching

2014- Engineering Mathematics 2, lecturer (600 students, rating 4.5/5)
 2015- Technology & Context of Robot Systems, unit director (120 students, rating 4.5/5)
 2014- MEng/BEng/MSc, project supervisor (7 students/year)
 2014-16 Engineering Mathematics 1, lecturer (300 students, rating 4.0/5)

Leadership

2020 Acting UoB Director, Bristol Robotics Laboratory

Acting as University of Bristol Director of BRL, while A Richards on extended paternity leave. Contributions: led UoB COVID planning to reopen BRL; led successful internal capital bid (£250k); UoB representative on high-level discussions on BRL operations and UWE-UoB partnership.

2014-17 Program Director, MSc in Robotics,

Extensive program changes to improve course quality; deemed a 'model program'.

Rapid Student growth from an unsustainable 9 (2013-14) to largest in UK at 135 students (2019-20)

2015- Group lead, Tactile robotics

Founded the tactile robotics research group.

Research supervision

Currently supervising 5 Research Associates, 1 Research Fellow and 1 technician

Currently lead supervisor for 7 PhD students and second supervisor for 5 PhD students

Supervised 50 MSc and MEng student projects, several leading to publications

6 graduated PhD students (now 2 Lecturers in Robotics, 1 Chief Statistician General Medical Council, 1 Vice Chancellor's Research Fellow, 1 Dyson Robotics Engineer, 2 Research Associates)

Indications of external recognition

2020 Acting for University of Bristol on the UK-RAS Network; member of UK Soft Robotics Network

2018 EPSRC full College membership

2017 Co-editor (with T. Prescott, P. Verschure) for 50-chapter (1008 page) book on *Living Machines: Handbook of Research in Biomimetic and Biohybrid Systems* (OUP)

2012/13/16 Editor, *Biomimetic & Biohybrid Systems (Living Machines)* in LNAI, Springer.

Organization of conferences and workshops

2021 Lead organizer UK Manipulation Workshop, Bristol (150 participants, planned)

2019/20 Co-organizer ICRA 2019 & 20 Workshops on 'ViTac: Vision and Touch' (400 participants)

2019 Co-organizer UK Manipulation Workshop, Leeds (150 participants)

2018 Lead organizer ICRA 2018 Workshop on 'Active touch' (100 participants)

2012/13/14/16/17/18 Living Machines; international conference (200 participants/year)

Program chair 2012/13/16; communications chair 2014/17/18

2016 Co-organizer IROS 2016 Workshop on 'Active touch sensing' (100 participants)

Membership of professional bodies

2016- Fellow of the HEA (Higher Education Authority)

2015- Member of the IMA (Institute of Mathematics and its Applications)

2011- Member of the IEEE (Institute of Electrical and Electronics Engineers)

Awards

2019 British Medical Association book awards, First prize in basic and clinical science

<https://www.bma.org.uk/library/medical-book-awards/winners>

2017 Silver award winner for 'Robots (Findout!)' MadeForMums Awards children's books category.

2016 First prize for Contributions in Soft Robotics Research (from 80 teams)

Annual Harvard Soft Robotics Competition <https://softroboticstoolkit.com/competitions>

2016 Leverhulme Research Leadership Award

1996 Elected to Junior Research Fellowship at King's College, Cambridge University

Outreach

2018: Dorling-Kindersley (Penguin publishing): Commissioned to author a volume on Robots in the well-known findout! series. *Robots (Findout!)*, 64 pages. Ages 8-14. (Amazon 4.8/5* from 75 ratings)

2017: Science Museum, London: Donated materials to a display in the Robots exhibition, including a 3D-printed robot hand and tactile sensors.

2008: TicToc publishing: Commissioned author, 4 paperbacks on physics of Theme Parks: *High-Speed Thrills, Falling for Fun, Twists and Turns, Marvellous Machinery*, 32 pages each. Ages 8-14.