

Curriculum Vitae

Eric Morgan Yeatman

e.yeatman@imperial.ac.uk

Google Scholar: <https://scholar.google.co.uk/citations?user=Jz3reeMAAAAJ&hl=en>

APPOINTMENTS

Imperial College London

- 2015 – Head, Department of Electrical and Electronic Engineering
- Overall executive and strategic responsibility for a department of 200 staff and 1000 students, turnover £40M. The department is ranked 11th in the world for EEE (QS 2022). It was part of the submission to the 2021 UK REF exercise, which ranked Imperial College as 1st for research quality. I initiated and oversaw the first complete reworking of our undergraduate syllabus in several decades, and obtained donations including £8M in 2020 to support a Chair in wireless communications.
- 2008 – 2015 Deputy Head, Department of Electrical and Electronic Engineering
- Primarily responsible for research matters. During the period, research income per capita grew from \approx £77k to £220k per annum, and the department achieved the top ranking of EEE departments in the UK in the REF 2014 research assessment (from 5th in 2008).
- 2005 – Professor of Micro-Engineering
- 1989 – 2005 Lecturer, Senior Lecturer (1996), Reader (2001)

Microsaic Systems plc

- 2001 – 2021 Co-founder and Director
- 2004 – 2013 Chairman of the Board (except Dec 2011-Oct 2012)
- Dec 2011 – Oct 2012 Acting CEO

Microsaic was founded in 2001 to commercialise intellectual property in microsystems arising from the research of its three co-founders. The company now specialises in developing and marketing miniature mass spectrometers, based on silicon micro-technology, for chemical analysis. During my leadership the company raised over £25M in investment capital, and had a successful IPO onto the AIM market of the London Stock Exchange in 2011. My role included technical direction, strategy and corporate governance, raising equity funding, negotiating international contracts, and recruiting and managing executives. See www.microsaic.com

University of California - Berkeley

- Jan – Sept 2015 Visiting Professor, attached to Berkeley Energy and Climate Institute

Imperial College London: Other Roles and Responsibilities

- 2020 – Co-Founder and Chair of Executive Board, ~~I-X~~
- I-X is Imperial's flagship multi-faculty collaboration in AI, machine learning and data sciences
- 2020 – Director, Imperial Consultants Ltd
- 2020 – Member, Imperial College Innovation Fund - Investment Committee
- 2002 – 2011 Founding Chair, Academic Training Committee, Imperial College Graduate School of Engineering and Physical Sciences

Set up and managed the transferable skills programme for over 1000 research students; this won two *Times Higher* awards.

1996 – 2008 Deputy Head, Optical and Semiconductor Devices Research Group

1991 – 1997 Department Coordinator, Women in Science & Engineering (WISE) programme

Academic Qualifications

1989 **PhD**

Imperial College of Science, Technology and Medicine, University of London
Thesis: “Applications of surface plasmons - microscopy and spatial light modulation”
Supervisor: Sir Eric Ash FRS; Support: Commonwealth Scholarship

1986 **Master of Science (Physics)**

Dalhousie University, Halifax, Nova Scotia, Canada
Thesis: “The detection of oil under ice by remote mode conversion of ultrasound”

1985 **B.Eng. in Engineering Physics (with distinction)**

Technical University of Nova Scotia, Halifax
Engineering Physics Medal

1983 **B.Sc. in Physics (with distinction)**

Dalhousie University, Halifax, Nova Scotia
Avery Prize: highest academic standing in general degree programme, Faculty of Arts & Science

Fellowships of Learned Societies

- City and Guilds of London Institute (FCGI), 2013
- Institute of Electrical and Electronics Engineers (FIEEE), 2013
- Royal Academy of Engineering (FEng), 2012
- Institution of Engineering and Technology (FIET), 2005
- Institute of Materials, Minerals and Mining (FIMMM), 2005

Research Highlights

- Co-founded (with RRA Syms) Imperial’s activity in MEMS (micro-electro-mechanical systems) in 1992. This was for over two decades the largest, best funded and most cited MEMS research activity in the UK.
- Personally initiated Imperial College’s activities in radio frequency MEMS and power MEMS, both leading to the appointment of a new member of academic staff.
- Made world’s first demonstration of surface plasmon microscopy (1987).
- With students and collaborators, made a number of device and technology firsts: motion energy harvesters for body mounted sensors; high-Q inductors by self assembly; integrated optical amplifiers using sol-gel glasses; nano-pore size control for semiconductor doped glasses; fiber-connected tuneable MEMS optical filter; surface plasmon spatial light modulators; synthetic sensor networks.
- Coordinated two major EU collaborative projects and one EPSRC multi-university collaboration; PI of two >£5M EPSRC grants.
- More than 12,000 citations (Google scholar data); h-index 46
- 35 Projects funded as Principal or Co-Investigator, £25M raised
- Awarded the [*Royal Academy of Engineering Silver Medal*](#) in 2011, given “to recognise an outstanding and demonstrated personal contribution to British engineering”.

- *Lifetime Achievement Award*, 18th Int. Conf. on Micro and Nanotechnology for Power Generation and Energy Conversion Applications, Dec. 2018 (only recipient to date).

Other Professional Activities

- Member of Council, City and Guilds of London Institute, 2021 –
- Member, Scientific Advisory Board, “Freiburg Center for Interactive Materials and Bioinspired Technologies”, 2019 – 2022
- Member, Enterprise Committee, Royal Academy of Engineering, 2018 –
- Visiting lecturer, St Petersburg Mining University, Russia, May 2018 & May 2019
- Chief International Academic Advisor, Harbin Institute of Technology, China, 2011 – 2019
- Academic Director, Vodafone Technical Excellence Programme, 2011 – 2015
- Advisor, Wingate Scholarships, 2005 – 2012
- Technical Consultant, Texas Instruments, Dallas, 2010
- Consultant, IC Consultants Ltd., 1995 - present
 - corporate technology assessment for Glaxo, Marconi, Texas Instruments
 - expert advisor: Applied Microengineering, Scientific Generics, Schroder Venture Partners
 - expert witness, Nortel Networks
- Project technical auditor, proposal reviewer and panel member, Framework IV, V, VI & VII programmes, European Commission, Brussels
- Member, Technical Advisory Board, Lambda Crossing, Caesarea, Israel, 2001- 2005 (optoelectronics start-up company)
- Member, Technical Advisory Board, Young Associates, London, 2002- 2005 (Venture Capital company)
- Member, Advisory Board, West Steag Partners, Essen, Germany, 2002-2004 (Venture Capital company)
- Technical Consultant, Analog Devices, 2001-2002, incl. on-site secondment, Cambridge, Mass.
- Hon. Secretary, Electronic Applications Divisional Board, Inst. of Materials, 1990 - 2002
- Member, IEE Professional Group S11 (Microengineering), 1998-2000
- Director and company secretary, Stage Seven Optics Ltd., 1989 -1995
- Engineer, Esso Resources Canada Ltd, and H.W. Jones & Assoc. Ltd, 1983 – 1986

Detailed in Appendix:

- Undergraduate teaching experience
- 146 refereed journal and 174 conference publications, 15 book chapters and books edited
- 11 patents (7 granted)
- 43 invited, keynote and plenary talks; 14 presentations on Executive Education, Tech Foresighting and Innovation Policy
- 13 external review panel memberships; 10 internal review panel and committee memberships
- 5 editorial board memberships & editorships
- 15 conference organising posts and 22 programme committee memberships
- 24 PhD students graduated
- 35 Projects funded (£25M)

APPENDIX: DETAILED ACADEMIC AND EXTERNAL ACTIVITIES

Undergraduate Teaching

As organiser of the 1st year UG course (1998 – 2008), introduced new formats for tutorials and group projects (both still in place)

Optical Communications: 4th year and MSc lecture course, 1991 – present

Waves: 1st year compulsory course, 2020 – present

Previous lecturing:

- 1st year Fields
- 1st year Communications
- 1st year Mathematics
- 2nd year Fundamentals of Computing

Other previous duties:

- 1st and 2nd year personal tutorials
- 1st and 2nd year study groups (range of courses)
- 1st year electronics laboratory supervision
- Group and individual project supervision (all years)

Invited, Keynote & Plenary Research Talks

- Keynote, *XXIth International Workshop on Physics of Semiconductor Devices (IWPSD 2021)*, Dec 2021
- *ICANx on-line lecture*, July 2020 (more than 300,000 participants)
- *Microsystems & Nanoengineering Summit 2019*, Shanghai, China, July 2019
- *Vibration Energy Harvesting 2019*, Shanghai, July 2019
- *Microsystems & Nanoengineering Summit 2018*, Beijing, China, July 2018
- *EnerHarv 2018*, Cork, Ireland, May 2018
- *13th IEEE Int. Conf. on Nano/Micro Engineered and Molecular Systems (IEEE NEMS)*, Singapore, April 2018
- University of Kent Physics Centre, Feb. 2018
- *London International Youth Science Forum*, August 2017
- *Microsystems & Nanoengineering Summit 2017*, Dalian, China, July 2017
- *Micro-Energy 2017*, Gubbio, Italy, July 2017
- *QS Summit on Electrical and Electronic Engineering Education*, Singapore, March 2016
- *OECD Forum*, Paris, June 2015
- *Silicon Friendly Materials and Device Solutions for Microenergy Applications* workshop, LET'S Conference, Bologna, Sept 2014
- *Microsystems & Nanoengineering Summit*, Beijing, August 2014
- *In the Quest for Zero Power* workshop, ESSDERC 2013, Bucharest, Sept 2013
- *Nano-Energy 2013*, Perugia, July 2013
- *Noise in Physical Systems Summer School*, Erice, Italy, July 2012
- *Energy Harvesting 2012*, London, March 2012
- Materials Research Society spring conference, San Francisco, April 2011
- ARM plc, *External Research Speaker Conference* 2010, Cambridge, Oct. 2010
- Short course presenter, *Plastic Electronics Europe* 2009
- Panellist, *Device Research Conference*, Penn State University, rump session, June 2009
- *Transducers 2009*, short course: Micro Energy Harvesting

- *SPIE Smart Structures/NDE*, March 2009, San Diego (Plenary lecture)
- ESF-NSF Workshop on *Applications of Adaptive Structures and Materials to Sustainable Energy and the Built Environment*, Pizay, France, October 2008 (Keynote lecture)
- *British Machine Vision Association Symposium*, London, June 2008 (Keynote lecture)
- *IEEE Electron Devices Meeting (IEDM)*, Washington, Dec. 2007
- *Ars Electronica*, Linz, Austria, Sept 2006
- *Micromechanics Europe*, Southampton, UK, Aug. 2006
- *International Conference on Materials*, ICMAT '05, Singapore, July 2005
- *DTIP of MEMS/MOEMS*, Montreux, Switzerland, June 2005
- *UK-Ireland Sol-Gel Workshop*, London, March 2005
- 1st International Workshop on Body Sensor Networks, London, 2004
- *Telecom Israel*, Tel Aviv, 2002
- workshop on *Micromachining and MEMS*, 31st European Microwave Conf., London, 2001
- workshop on *The Disappearing Computer*, European Commission, Brussels, 2000
- *Sol-Gel '99 International Workshop*, Yokohama, 1999
- Inst. of Materials Discussion Forum on Surface Engineering, 1999
- *SPIE Annual Meeting*, July 1997, San Diego
- *20th International School of Quantum Electronics*, Erice, Sicily, Nov. 1996
- *SBMO/IEEE Microwave and Optoelectronics Conf.*, Brasil, 1995
- *IoP Congress (Microengineering Session)*, Brighton, 1994
- *European Science Foundation Workshop on Biosensing*, Helsinki, 1994

Presentations: Executive Education, Tech Foresighting, and Innovation Policy

- Imperial College Business School Executive MBA Programme, *Smart Cities and the Internet of Things*, June 2017, Oct. 2018, July 2020
- Imperial College Business School Executive MBA Programme, *Future of Technology*, July 2018 and July 2019
- Schmidt Fellows: Rhodes Trust Workshop, July 2018
- Shanghai Advanced Institute of Finance (SAIF) Executive MBA Programme, Imperial College Business School, August 2017 and July 2018
- Imperial Business Partners, *Quantum Technology*, Nov. 2017
- Imperial Business Partners, *Innovations in Infrastructure*, Oct. 2017
- Imperial College Executive Education: *Nationwide Enterprise Leadership* programme, 2016
- Imperial College / BML Munjal University Innovation Conference, Delhi, India, Jan. 2016
- Ambrosetti Club, London, Nov 2015
- *2034: Tech Foresight*, July 2014, (www.imperialtechforesight.com)

Colloquia, Seminars (recent only)

- Cambridge Graphene Centre, March 2017
- MIT, Dept of Mechanical Engineering, Dec. 2015
- U. Washington EE Colloquium, June 2015
- Berkeley Sensors and Actuators Center (BSAC) seminar series, April 2015

External Reviews and Review Panel Memberships

- External Reviewer, James Watt School of Engineering, University of Glasgow, 2021

- Science Foundation Ireland, *SFI Connect Research Centre* Chair of Review Panel, Dec 2020 – Feb 2021
- Science Foundation Ireland, *SFI Connect Research Centre* Review Panelist, Dec 2018 – April 2019
- Agency for Science, Technology and Research (A*STAR), Advanced Manufacturing and Engineering (AME) programme, Nanotechnology for Artificial Intelligence, Singapore, 2018
- EPSRC, *Engineering for a Prosperous Nation*, Sept. 2017
- EU NEREID project (“NanoElectronics Roadmap for Europe”), 2016 – 2018
- Royal Academy of Engineering, *Frontiers of Engineering*, 2016 –
- Royal Academy of Engineering, *Research Fellowships*, 2015 –
- Royal Academy of Engineering, *Enterprise Awards and Fellowships*, 2014 –
- French-Singaporean Research Institute CINTRA, Singapore, Jan 2013
- *ERA Foundation Entrepreneurs Award*, Royal Academy of Engineering, 2013-2016
- *Univ. of California Center for IT Research in the Interests of Society (CiTRIS)*, a \$300M multi-campus initiative, 2010
- *International Travel Grants Scheme*, Royal Society, 2007 - 2010
- QinetiQ Fellowship, Dec. 2007
- Appointment panel, Head of Nanotechnology Group, Cranfield University, 2006

Internal (Imperial College) Committee and Panel Memberships

- Member, Academic Strategy Committee, Smart Society theme, 2019-2020
- Co-founder, *Smart Connected Futures Centre*, 2017-18
- Provost’s Student Entrepreneurship Group, 2014 – 2017
- College Strategy Working Group (Leading the Data Revolution) 2014
- Research Board, Data Science Institute, 2013 – present
- Faculty of Engineering Research Committee, 2008 – 2015
- Founder and Co-Director, Digital Economy Lab, 2011 – 2019
- Executive Committee, Institute for Security Science & Technology, 2010 – 2016
- Co-founder and Management Comm. member, Centre for Pervasive Sensing, 2007 – 2016
- Organiser of external course *Microsystems Technology*, 1994 – 2001

Editorial Board Memberships & Editorships

- Editorial board member, *J. of Micromechanics and Microengineering*, IoP Publishing, 2016 –
- Editorial board member, *Smart Health*, Elsevier, 2016 –
- Editorial board member, *Microsystems and Nanoengineering*, Nature Publishing Group, 2015 –
- Member, Int. Adv. Board, *Energy Harvesting and Systems Journal*, De Gruyter, 2014 –
- Editor in Chief, *Int. Journal of Electronics*, Taylor & Francis, 1998 – 2001

Conference Organisation

- Regional Chair Europe/Africa, *Transducers 2019*
- General Chair, *DE/2014 (Digital Economy All Hands Conference)*, London, Dec 2014
- Member, International Steering Committee, *PowerMEMS*, 2014 – present
- Co-Chair, *Privacy and the Digital City* panel discussion, Imperial College, March 2014

- Co-Chair, Technical Program Committee, *PowerMEMS 2013*, London, Dec 2013
- Member, International Steering Committee, *Transducers*, 2013-2021
- Chair, Steering Committee, *Int. Conference on Body Sensor Networks*, 2010 - 2018
- Co- General Chairman, *6th Int. Symposium on Body Sensor Networks*, Berkeley, June 2009
- Organiser, 1st and 2nd workshops, *Imperial College Centre for Pervasive Sensing*, 2007/8
- Member, International Advisory Committee, *11th Int. Ceramics Congress & 4th Forum on New Materials*, CIMTEC, 2006.
- Member, International Advisory Committee, *IEEE Region 10 Int. Conf on Electrical & Electronic Technology*, Singapore, Aug. 2001.
- Member of organising committee, and proceedings co-editor, *Ferroelectrics 2000*.
- Co-chairman, IEE Colloq. *Microengineering in Optics and Optoelectronics*, Nov. 1999.
- Member, International Advisory Comm, *World Ceramics Congress* (Section K), 1998.
- Chairman and organiser, *UK/Ireland Sol-Gel Group Annual Meeting*, 1998.

Technical Program Committee (TPC) Memberships

- *Transducers 2013*, Barcelona, and *2015*, Anchorage (Executive TPC)
- *PowerMEMS: 2012, 2011, 2010, 2009, 2008, 2007*
- *IEEE Sensors 2011*, Dublin
- *Transducers: 2011*, Beijing; 2009, Denver
- *Design Automation & Test Europe (DATE) 2011*, Grenoble
- *IEEE MEMS: 2010*, Hong Kong; 2009, Sorrento, Italy
- *Latin American Optics & Photonics Conf.*, Recife, Brazil, Sept 2010
- *Bodynets 2009*, Los Angeles
- *Int. Workshop on Body Sensor Networks (BSN): 2009, 2008, 2007, 2006*
- *SENSORCOMM 2007*, First Int. Conf. on Sensor Technologies & Applications
- Fifth Int. Conference on *Information Processing in Sensor Networks (IPSN)*, SPOTS track, 2006

Publications in Refereed Journals and Conference Proceedings

These are no longer listed here as they can easily be found in on-line sources such as:

Google Scholar: <https://scholar.google.co.uk/citations?user=Jz3reeMAAAAJ&hl=en>

Imperial College archive, via my homepage: <https://www.imperial.ac.uk/people/e.yeatman/publications.html>

Books and Special Issues Edited, Book Chapters, Other

- 15) E.M. Yeatman, H.M. Gramling & E.N. Wang, Eds, "Special Topic on Nanomanufacturing", *Microsystems & Nanoengineering* (2017).
- 14) H.M. Gramling, M.E. Kiziroglou & E.M. Yeatman, "Nanotechnology for Consumer Electronics", pp 501-526, in R. Puers, L. Baldi, S.E. van Nooten and M. Van de Voorde, Eds., *Nanoelectronics: Materials, Devices, Applications*, Wiley (2017).
- 13) Boyle D., Kolcun R., Yeatman E.M., "Energy-Efficient Communication in Wireless Networks", in *ICT - Energy Concepts for Energy Efficiency and Sustainability*, Dr. Giorgos Fagas (Ed.), InTech (2017).
- 12) D. Briand, E. Yeatman and S. Roundy, Eds., *Micro Energy Harvesting*, Wiley, 2015.
- 11) E.M. Yeatman & P.D. Mitcheson, "Energy Harvesting and Power Delivery", in G.Z. Yang, Ed., *Body Sensor Networks, 2nd Ed*, Springer, 2014, pp 237-272.

- 10) M. Kiziroglou & E.M. Yeatman, "Materials and Techniques for Energy Harvesting", in Functional Materials for Sustainable Energy Applications, J. Kilner, S. Skinner, J. Irvine and P. Edwards, Eds., Woodhead Publishing, 2012, pp. 541-572.
- 9) E.M. Yeatman & P.D. Mitcheson, "Energy Scavenging", in G.Z. Yang Ed., Body Sensor Networks, Springer, 2006, pp 183-217.
- 8) E.M. Yeatman, "Ellipsometry Of Sol-Gel Films", in S. Sakka Ed., Handbook of Sol-Gel Technology, Boston: Kluwer, 2005, Vol. II, pp. 349-357.
- 7) N. McN. Alford & E.M. Yeatman, Ed., Ferroelectrics 2000 UK, London: IOM Communications Ltd., 2000.
- 6) E.M. Yeatman, "Engineering the Disappearing Computer", i3 Magazine, Nov. 2000, pp. 10-11.
- 5) E.M. Yeatman, "Thin-film optical waveguides", in M.A. Aegerter and M. Mennig, Eds., Handbook on Sol-Gel Techniques for Glass Producers and Users, Kluwer, 2004.
- 4) E.M. Yeatman, "Planar Waveguide Optical Amplifiers", in M.A. Aegerter and M. Mennig, Eds., Handbook on Sol-Gel Techniques for Glass Producers and Users, Kluwer, 2004.
- 3) E.M. Yeatman, "Actuation mechanisms for micro-mechanics", pp. 209-221 in S. Martellucci and A. Chester, ed., Diffraction Optics and Optical Microsystems, (New York, Plenum Press, 1997).
- 2) E.M. Yeatman, "Sol-gel fabrication for optical communication components: prospects and progress", in S.I. Najafi and M. Andrews, Eds., Sol-gel and Polymer Photonic Devices, SPIE Crit. Rev. Proc. **CR-68**, 1997, pp. 119-142.
- 1) E.M. Yeatman, Ed. "Supporting microsystems technology in Europe: the SME dimension", strategy paper distributed to Esprit Framework IV planning committee, March 1994.

Patents

- 12) Lincoln D., Szasz P., Keeping S., Holmes A.S., Yeatman E.M. and others, "Multi-Sensor Mounting System", published 15/12/2021 as EP3922896.
- 12) Wright S., Yeatman E.M., Crichton E., "A system and method for detecting analytes dissolved in liquids by plasma ionisation mass spectrometry", published 16/6/2021 as GB2589853A
- 11) Keeping S., Szasz P., Lincoln D., Yeatman E.M. and others, "Captured In-Pipe Sensor", published as EP3786507, 3/3/2021, withdrawn.
- 10) Taylor H., Gramling H.M., Yeatman E.M., "Selective Transfer of a Thin Pattern from Layered Material using a Patterned Handle", US Patent Application 62579963, filed 1/11/2017.
- 9) Pillatsch P., Yeatman E.M., Holmes A.S. "Power generation device", UK Patent Application GB 1207987.7, filed 4/5/2012, US patent 9,893,653 granted 13/2/18.
- 8) A. Finlay, E.M. Yeatman, W. Boxford, A. Onishenko, "Mass Spectrometer System", filed 30/11/09, published 23/6/10, granted 8/6/2011 as GB 2466350.
- 7) A. Finlay, E.M. Yeatman, S. Wright, "Preconcentrator and Sample Interface", filed 4/10/2007, published 15/4/09, granted 6/1/2010 as GB 2453531.
- 6) E.M. Yeatman, P.D. Mitcheson, "Electrical Generator", UK Application 0718008.6, filed 14/9/07, published 19/3/2009 as WO2009034321.
- 5) E.M. Yeatman, R.R.A. Syms, "Planar micro-machined valve and thermal desorber", UK Application GB 2434643, filed 31/1/2006, published 1/8/2007, granted 1/6/2011, also granted as US patent 7,815,722, 19/10/2010.
- 4) E.M. Yeatman, A. Finlay, S. Wright, "Integrated Analytical Device", filed 7/2/2005, published 9/8/2006, granted 28/7/2010 as GB 2422951; also granted as US patent 7435952, 14/10/2008.
- 3) E.M. Yeatman, R.R.A. Syms, "Microengineered Broadband Electrical Switches", filed 22/1/2004, published 27/7/2005, granted 4/4/2007 as GB 2410371.
- 2) E.M. Yeatman, "Microengineered Self-Releasing Switch", filed 9/4/02, published 15/10/03, granted 13/4/2005 as GB 2387480; US patent application no. 20050146404, published July 2005.

- 1) Kist T.L.; Michels A.F.; Yeatman E.M.; Grieneisen H.P.H., "Viscosímetro por interferometria óptica em plataforma giratória", Brazil patent application BR0001707, filed 10/5/2000, granted 10/1/2012.

Doctoral Theses Supervised

- 24) A. Pandiyan, "Acoustic Power Distribution Techniques for Wireless Sensor Networks", Imperial College London 2022.
- 23) M. Shi, "Piezoelectric Devices for Energy Harvesting and Ambient Sensing", Imperial College London 2021.
- 22) Y. Qi, "Wireless interactions between unmanned aerial vehicles and sensor nodes", Imperial College London 2019.
- 21) M. Kang, "Hybridized thermal energy harvesting mechanism", Imperial College London 2019.
- 20) H. Fu, "Rotational energy harvester for low power electronics", Imperial College London 2018.
- 19) H. Jiang, "Piezoelectric Energy Harvesting and Wireless Sensing Powered by Non-Harmonic Motion", Imperial College London 2016.
- 18) P. Pillatsch, "Piezoelectric energy harvesting from low frequency and random excitation using frequency up-conversion", Imperial College London 2014 (co-supervised).
- 17) A. Denisov, "Stepper microactuators driven by ultrasonic power transfer", Imperial College London 2013.
- 16) L. Thorner, "Miniaturized Energy Harvesters in a Fluid Environment", Imperial College London 2013 (co-supervised).
- 15) T.T. Toh, "A Gravitational Torque Energy Harvesting System for Rotational Motion", Imperial College London 2011 (co-supervised).
- 14) C. He, "Electrostatic Micro Energy Harvester with Rolling Mass", U. of London 2010.
- 13) S.H. Pu, "A Micromachined Zipping Variable Capacitor", Imperial College London 2010 (co-supervised).
- 12) Li Zhao, "Design and Fabrication of Micro-Electro-Mechanical Tilt Sensors for Low Power Body Motion Detection", U. of London 2009.
- 11) S. Vatti, "RF CMOS VCOs: MEMS Inductor Integration and the Bias Tuning Method", U. of London 2008 (co-supervised).
- 10) A. Lipson, "A Tunable Micro-Electro-Mechanical Optical Filter in Silicon", U. of London 2006.
- 9) A. Laliotis, "Analysis and Fabrication of Homogeneous High Concentration Erbium Doped Waveguide Amplifiers", U. of London 2005.
- 8) N. Avlonitis, "Multi-valued signalling for high efficiency optical communication systems", U. of London 2004.
- 7) E. Manyonganise, "Design, Analysis and Fabrication of a Micromachined Optical Tunable Lattice Filter", U. of London 2003.
- 6) G. Dahlmann, "Microfabrication of monolithic inductors for microwave integrated circuits using a self-assembly technique based on surface tension", U. of London 2002.
- 5) M. Solomon, "Laterally driven self-assembly of microstructures", U. of London, 2002.
- 4) M.H.M. Zai, "Chemical synthesis of lead zirconate titanate thin films for a piezoelectric actuator", U. of London, 2000.
- 3) O. McCarthy, "Selective area doping of porous silica films for optical applications", U. of London 1998.
- 2) M.A. Fardad, "Fabrication of sol-gel silica-on-silicon waveguides doped with semiconductor quantum dots for integrated optics", U. of London, 1995.
- 1) M.E. Caldwell, "Surface plasmon spatial light modulators", U. of London 1991

Research Grants and Contracts

As Principal Investigator (PI) where marked *, else as Co-investigator.

Total funding: £26 M

2020-22	<i>Wireless In-Situ Soil Sensing Network for Future Sustainable Agriculture*</i> Sponsor: NERC + NSF	£550k
2018-21	<i>Revolutionary Sensors</i> Sponsor: ABB	£350k
2018-20	<i>AMPWISE*</i> Clean Sky Joint Undertaking	£170k
2017-18	<i>Sky Swarm</i> sponsor: DSTL	£70k
2017-22	<i>Micro-Robotics for Surgery* (PI from 2019)</i> sponsor: U.K. Engineering & Physical Sciences Research Council (EPSRC)	£6.2M
2017-20	<i>ENHANCE</i> sponsor: European Commission	£460k
2015-20	<i>Managing Air for Green Inner Cities (MAGIC)</i> sponsor: U.K. Engineering & Physical Sciences Research Council (EPSRC)	£4.2M
2014	<i>Sensor Survey*</i> sponsor: Rio Tinto	£40k
2013-2014	<i>FLite Instrumentation Test Wireless Sensor – FliteWISE*</i> sponsor: EU Clean Sky Programme	£65k
2013-2014	<i>Power line energy harvesting for aircraft sensor nodes</i> sponsor: Airbus	£40k
2011-2016	<i>Digital City Exchange (PI, 2013-2014)</i> sponsor: Research Councils UK	£5.9M
2011-2012	<i>ASU – Imperial College Collaboration*</i> sponsor: British Council	£20k
2010-2012	<i>Strain Wireless Sensor Network – StrainWISE*</i> sponsor: EU Clean Sky Programme	£153k
2009-2012	<i>Next Generation Energy-Harvesting Electronics - holistic approach</i> sponsor: EPSRC	£351k
2009-2012	<i>University Defence Research Centre</i> sponsor: U.K. Ministry of Defence	£1.4M
2008-2011	<i>Platform Support for 3D Electrical MEMS (renewal)</i> sponsor: U.K. Engineering & Physical Sciences Research Council (EPSRC)	£808k
2008-2011	<i>Mobile Water Quality Sensor System</i> sponsor: European Commission	£273k
2006-2009	<i>Integrated Functional Materials for System-in-Package Applications*</i> sponsor: EPSRC	£420k
2005-2009	<i>Autonomic Biosensor Networks For Pervasive Healthcare (WINES)</i> sponsor: EPSRC	£1.4M
2004-2008	<i>MEMS Technologies for Fast Storage Area Network Switch Fabrics*</i>	£212k

	sponsor: EPSRC	
2004-2006	<i>Integration of Functional Ceramics in 3D MEMS*</i> sponsor: EPSRC	£89k
2004-2007	<i>Platform Support for 3D Electrical MEMS</i> sponsor: EPSRC	£418k
2004-2005	<i>Microstructures For Nanoscale Measurement</i> sponsor: Royal Society / Wolfson Foundation	£157k
2002-2005	<i>HARM Technologies for Optical and RF Components</i> sponsor: EPSRC	£650k
2000-2003	<i>Optical Amplification in Laminated Waveguides*</i> sponsor: Nortel Networks	£51k
2001-2003	<i>ORESTEIA: Modular Hybrid Artefacts With Adaptive Functionality*</i> sponsor: European Commission	£150k
2001-2003	<i>TeMPOs : Technologies for Microengineered Power Systems*</i> sponsor: EPSRC	£199k
2000	<i>Ultrametrolgy for MEMS</i> Sponsor: EPSRC Strategic Equipment Initiative	£242k
2000-2002	<i>OASIS : Materials for Wideband Optical Amplifiers in Silica-on-Silicon*</i> sponsor: EPSRC	£198k
2000-2003	<i>MiMiC: Microstructures on Microwave Circuits*</i> sponsor: EPSRC	£200k
1997-2000	<i>Micro-Engineered Optical Read Heads and Scanners</i> sponsor: EPSRC	£239k
1995-1998	<i>Customer Access Photonics...*</i> sponsor: European Commission	£274k
1992-1995	<i>Non-Linear and Active Optical Devices on Silicon*</i> sponsor: European Commission	£217k
1993-1995	<i>Microsystems : Useage, Strategy, Technology*</i> sponsor: European Commission	£75k
1994-1996	<i>Micro-Molding and Micro-Actuation using Surface Tension</i> sponsor : Japanese Micromachine Centre Foundation	£20k
1994-1996	<i>Self-Assembling Three Dimensional Microstructures</i> sponsor : U.K. Science & Engineering Research Council (SERC)	£99k
1993-1995	<i>Piezo-Electric Micro-Mechanical Actuators by Sol-Gel Processing</i> sponsor: SERC	£67k
1988-1991	<i>Surface Plasmon Spatial Light Modulators*</i> sponsor: SERC	£68k