

## Marion Hersh

### Qualifications:

- B.A. in Mathematics, Cambridge University, 1977
- MSc in Control Engineering, UMIST, 1980
- PhD in Control Engineering, UMIST, 1985
- CEng, Engineering Council, 1990
- Certificate of Proficiency in Russian, Glasgow University, 1992
- CMath, Institute of Mathematics and its Applications, 1999

### Present Appointment:

- Senior Lecturer (associate professor) in Biomedical Engineering, University of Glasgow

### Previous Appointments:

- 1982 – 1985 Post Doctoral Research Fellow at University of Sussex
- January – July 1986 Post Doctoral Research Fellow at University of Strathclyde

### Languages

- French, German, Italian, Polish, Portuguese, Russian, Spanish – fluent
- Hebrew, Romanian, Slovene, British Sign Language, British Deafblind Manual Language – moderate knowledge
- Arabic, Japanese – very basic knowledge

### Committees and EU Project Evaluation

- Chair of International Federation of Automatic Control (IFAC) Working Group on Ethics, 2001 (ongoing)
- Vice-chair of IFAC Technical Committee on Technology, Culture and International Security, 2002 (ongoing)
- Member of Committee of Informatics, Control and Electronics Sections of IET Scotland 2005-2015
- Member of Committee of the Institute of Mathematics and its Applications Scotland 2010-2011, 2013-16 (ongoing)
- University and College Union (UCU) National Executive Committee 2007-9, 2010-12, 2013-17
- UCU Scotland Executive Committee 2007-11, 2013-15
- UCU Equality Committee 2007-9, 2010-12, 2013-17
- Expert evaluator of EU framework projects, 2000, 2001, 2006, 2007; and 2012-13.

### Recent Journal Publications

1. E. Pissaloux, R. Velazquez, M. Hersh and G. Uzan (2016). Towards a cognitive model of human mobility: an investigation of tactile perception for use in mobility devices. *Journal of Navigation* vol. 70, no. 1, pp 1-17.
2. M.A. Hersh (2016). Improving Deafblind Travelers' Experiences: An International Survey, *Journal of Travel Research*, vol. 55, no. 3, pp. 380-394.
3. M.A. Hersh (2016). Classification Framework for ICT-Based Learning Technologies for Disabled People, *British Journal of Education Technology*, DOI: 10.1111/bjet.12461
4. M.A. Hersh (2015). Engineers and the Other: the Role of Narrative Ethics. *AI and Society*, 31(3), 327-245.
5. M.A. Hersh (2015). Cane Use and Late Onset Visual Impairment. *Technology and Disability* vol. 27(3), pp. 103-116.
6. M.A. Hersh (2015). Overcoming Barriers and Increasing Independence: Service Robots for Elderly and Disabled People. *International Journal of Advanced Robotic Systems*, DOI: 10.5772/59230
7. M.A. Hersh (2014). Evaluation Framework for ICT-Based Learning Technologies for Disabled People. *Computers and Education*, vol. 78, pp. 30-47.

8. M.A. Hersh (2014). Deafblind People, Stigma and the Use of Communication and Mobility Assistive Devices, *Technology and Disability*, vol. 25(4), pp. 245-261.
9. M.A. Hersh (2014). Science, technology and values: promoting ethics and social responsibility. *AI and Society*, vol. 29(2), pp. 167-183.
10. M.A. Hersh (2013). Barriers to Ethical Behaviour and Stability: Stereotyping and Scapegoating as Pretexts for Avoiding Responsibility. *Annual Reviews in Control*, vol. 37(2), pp. 365-381.
11. M.A. Hersh (2013). Deafblind People, Communication, Independence and Isolation, *The Journal of Deaf Studies and Deaf Education*, vol. 18(4), pp. 446-463.
12. M.A. Hersh (2013). Subtitles and the Representation of Emotions and Contextual Features: A Two-Country Survey of Deaf People's Experiences, Attitudes and Requirements, *Telecommunications Journal of Australia*, vol. 63(2), pp. 23.1-23.14.
13. M.A. Hersh and M.A. Johnson (2012). A robotic guide for blind people part 2, *Applied Bionics and Biomechanics*, vol. 9, pp. 29-43.

### **Recent Book Chapters**

1. M.A. Hersh (2017). Mobility Technologies for Blind, Partially Sighted and Deafblind People: Design Issues. In: *Mobility of Visually Impaired People – Fundamentals and ICT Assistive Technologies*, E. Pissaloux (ed.) Springer (in press).
2. M.A. Hersh (2017). Mobility, Inclusion and Exclusion. In: *Mobility of Visually Impaired People – Fundamentals and ICT Assistive Technologies*, E. Pissaloux (ed.) Springer (in press).

### **Books**

1. J.B. Lewoc and M.A. Hersh (2019). *Ethics and Human Behaviour in ICT Development: Case Studies from Central Europe*
2. M.A. Hersh (2015). *Ethical Engineering for International Development and Environmental Sustainability*, Springer Verlag.
3. M.A. Hersh and M.A. Johnson (2008). *Assistive Technology for Visually Impaired and Blind People*, Springer Verlag, 978-1-84628-866-1.
4. M.A. Hersh (2006). *Mathematical Modelling for Sustainable Development*, Springer Verlag, ISBN 3-540-24216-3.
5. M.A. Hersh and M.A. Johnson (2003). *Assistive Technology for the Hearing Impaired, Deaf and Deafblind*, Springer Verlag, 2003, ISBN 1-85233-382-0.

### **Awards**

1. Finalist in Autism Professional Awards 2015
2. Christopher Newall Award of Telecommunications Journal of Australia, third prize, for paper Subtitles and the Representation of Emotions and Contextual Features: A Two-Country Survey of Deaf People's Experiences, Attitudes and Requirements, 2013
3. Lady D Award for work on mobility of blind people: new strategies and solutions; presentation in Polish Parliament, 2011
4. Człowiek bez Barrier: Polish award for disabled people who overcome barriers to have significant achievements; presence of UK ambassador; awarding committee includes members of the Polish Academy of Sciences, 2012
5. Personal recommendation for my work by President of European Parliament, 2011

### **Conference Chairing and Organisation**

- International conferences on Barriers and Enablers to Learning Maths, 2015
- Using New Technologies for Inclusive Learning, 2013
- Six international conferences on Assistive Technology for People with Hearing and Vision Impairments, 2001-9

**Journal Special Sections**

- Serious Games, Education and Inclusion for Disabled People, British Journal of Educational Technology, April 2018
- Applications of Signal Processing and Control to Assistive Technology, International Journal of Adaptive Control and Signal Processing, 2013