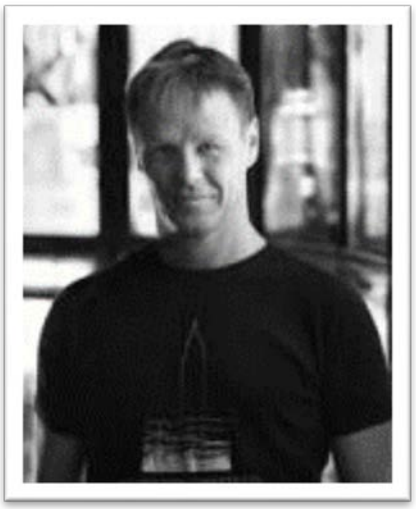
Associate Professor Mark Sagar, PhD



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Born on October 16, 1966

Scientific Career

Since 2012	Academic at the Auckland Bioengineering Institute, The University of Auckland, New Zealand
2004 - 2011	Special Projects Supervisor, Weta Digital, Wellington, New Zealand
2002 - 2004	Special Projects Supervisor, Sony Pictures Imageworks, California, USA
2000 - 2002	Co-Director of Research and Development, LifeF/X Inc., California, USA
1998 - 2000	Co-Director of Research and Development, Pacific Title Mirage, California, USA
1996 - 1997	M.I.T. Post Doctoral Fellowship, Massachusetts Institute of Technology, Boston, USA
1996	Ph.D. (Engineering) The University of Auckland
1988	B.Sc. (Physics and Mathematics) The University of Auckland,

Scholarships, Awards and Faculty Functions

2012	Member Centre for Brain Research
2012	Member University of Auckland Creative Thinking Board
2012	Distinguished Alumni Award, The University of Auckland
2010	Academy of Motion Picture Arts and Sciences Scientific and Engineering Award
2009	Academy of Motion Picture Arts and Sciences Scientific and Engineering Award
2001	SIGGRAPH Computer Animation Festival Selection
2000	SIGGRAPH Electronic Theatre Selection
1999	SIGGRAPH Electronic Theatre Selection
1996 - 1997	Post Doctoral Fellowship, Massachusetts Institute of Technology
1994	NZCS 13th Annual Conference Award for “Best Overall Paper”
1994	IPENZ G.T. Murray Award for Best Student Paper
1992 - 1996	University of Auckland Doctoral Scholarship
1987	University of Auckland Senior Prize in Mathematics and Physics

Ten most important publications

* Publications jointly together with UoA-researchers involved within this IRTG

§ Publications jointly together with USTUTT-researchers involved within this IRTG

A) Published in publication outlets with scientific quality assurance and book publications:

1. Sagar M.; Broadbent E.: Participatory medicine: model based tools for engaging and empowering the individual. Royal Society Interface Focus, 6(2), 11 pages, 2016.
2. * Hunter, I.W.; Jones, L.; Sagar, M.A.; Doukoglou, T.; Lafontaine, S.; Hunter, P.J.: A Teleoperated microsurgical robot and associated virtual environment for eye surgery. Presence, 2(4), p. 265-280, 1993.
3. * Hunter, I.W.; Jones, L.; Sagar, M.A.; Lafontaine, S.; Hunter, P.J.: Ophthalmic microsurgical robot and associated virtual environment. Computers in Medicine and Biology 25 (2), p. 173-182, 1995.
4. Sagar M.; Bullivant, D.; Robertson, P.; Efimov, O.; Jawed, K.; Kalarot, R.; Wu, T.: A neurobehavioural framework for autonomous animation of virtual human faces, Proceedings of SIGGRAPH Asia, 10 pages, 2014
5. Sagar, M.; Bullivant, D.; Efimov, O.; Jawed, K.; Kalarot, R.; Robertson, P.; Wu, T.: Embodying models of expressive behaviour and learning with a biomimetic virtual infant. Proceedings of the International Conference on Development and Learning and Epigenetic Robotics, p. 62-67, 2014.
6. * Sagar, M.; Bullivant, D.; Mallinson, G.D.; Hunter, P.J.; Hunter, I.W.: A virtual environment and model of the eye for surgical simulation. In Computer Graphics Proceedings of SIGGRAPH 94, p. 205-212, 1994.

B) Other publications

7. Sagar, M.: Reflectance Field Rendering of Human Faces for “Spider-man 2”. ACM SIGGRAPH 2004 Sketches, 1 page, 2004.
8. Sagar, M.: Facial Performance Capture and Expressive Translation for "King Kong". ACM SIGGRAPH 2006 Sketches, 1 page, 2006.
9. Sagar, M.: Creating Models for Simulating the Face. Book chapter in Model Driven Engineering Languages and Systems (Eds: Whittle, Clark, Kuhne), Lecture Notes in Computer Science Volume, 6981, p. 394-394. 2011.

C) Patents

1. United States Patent: 7,554,549 System and Method for tracking facial muscle and eye motion for computer graphics animation.
2. United States Patent: 6,967,658 Non-linear morphing of faces and their dynamics.
3. United States Patent: 6,486,881 Basis functions of three-dimensional models for compression, transformation and streaming
4. United States Patent: 6,064,390 Apparatus and method for representation of expression in a tissue-like system

Supervised graduate students since 2011

No.	Last Name, First Name	Degree	Title of the dissertation	Duration of thesis
1	Robertson, Paul	PhD	Interactive Modelling of Neural Systems	2013 -

Most important research grants since 2011

No.	Research Project	Funding Period	Name(s) of the principal investigator(s)	Funding source and reference number
1	Cross Faculty Research Fund Award	2012	Sagar, M.	UoA
2	Vice Chancellors Strategic Development Fund	2012	Sagar, M.	UoA