

Exponent® Engineering & Scientific Consulting

Keith Man, Ph.D.

Senior Engineer | Mechanical Engineering Hong Kong +852 3998 5420 tel | kman@exponent.com

Professional Profile

Dr. Man is an engineer with a multidisciplinary background in mechanical, biomedical and marine engineering. This allows him to approach problems using a multitude of techniques from different engineering disciplines.

Dr. Man has expertise in fluid mechanics modelling and experimental study, designing submersible systems, bio-inspired systems, simulation models, and condition monitoring. He is well-versed with using MATLAB® for modelling linear, nonlinear and transient systems, data processing and data analysis, LabView® for real time control and data acquisitions, and a range of 3D CAD programs including Solidworks® and Fusion 360®. In mechanical and marine engineering, he is familiar with using recirculating water channel and wind tunnel for fluid mechanics studies. He has experience in designing AUV systems, bio-inspired actuators, force measurement systems and condition monitoring systems. In biomedical engineering, he has also carried out experimental and modelling study of physiological response to visual and electrical stimulus. Dr. Man is also a certified PRINCE2® practitioner in project management.

Prior to joining Exponent, Dr. Man worked in a technical venture company in Hong Kong as a R&D Project Manager with responsibility including research project planning and management, technology assessment, technical sales support, project engineering support and model development.

Academic Credentials & Professional Honors

Ph.D., Engineering Sciences, University of Southampton, UK, 2015

M.Sc., Advanced Mechanical Engineering, Imperial College London, UK, 2009

B.Eng., Biomedical Engineering, Imperial College London, UK, 2008

Licenses and Certifications

PRINCE2® Foundation Certificate in Project Management

PRINCE2® Practitioner Certificate in Project Management

Professional Affiliations

Member of IEEE and

- IEEE Engineering in Medicine and Biology Society
- IEEE Ocean Engineering Society
- IEEE Robotic and Automation Society
- IEEE Systems, Man, and Cybernetics Society

Languages

Mandarin Chinese

Publications

Man, S.G.K.; Phillips, A.B.; Boyd, S.W.; Blake, J.I.R.; Griffiths, G., "Bio-inspired aquatic flight propulsion system for agile and manoeuvrable underwater vehicles", OCEANS, 2012 - Yeosu, pp.1-10, 21-24 May 2012, doi: 10.1109/OCEANS-Yeosu.2012.6263515

Phillips, A.B.; Man S. K., Murphy A.J., Boyd, S.W.; Blake, J.I.R.; Griffiths, G., "Nature in engineering for monitoring the oceans: comparison of the energetic costs of marine animals and AUVs, Further Advances in Unmanned Marine Vehicles", Publisher: The Institution of Engineering and Technology, Editors: G.N. Roberts and R. Sutton, pp.373-405

S.G.K Man, "Life below water", Friends of UNESCO HK e-newsletter Apr 2017.

Presentations

2012 Oceans, 2012, Yeosu, Korea. International Conference. Presentation and paper. Title: Bio-inspired aquatic flight propulsion system for agile and manoeuvrable underwater vehicles

2012 National Oceanographic Centre Southampton, Ocean and Earth Day 2012, at NOC, Southampton. Public outreach, poster and demonstration. Title: NIMBLE - A study of how penguin swim and the development of a swimming penguin robot.

2011 UK Marine Technologies Post Graduate Conference 2011 - Presentation and Abstract. Presentation title: Bio-inspired flapping foil platform (NIMBLE) for manoeuvrable underwater vehicle.