

**GEORGE P. MYLONAS, BEng, MSc, DIC, PhD**  
 Researcher unique identifier (ORCID): **0000-0003-3725-5843**  
 email: **george.mylonas@imperial.ac.uk**

## Education

2003 – 2009 awarded 2010	<b>Part-Time PhD and Diploma of Imperial College in Medical Imaging and Surgical Robotics,</b> Faculty of Engineering/Dept. of Computing, Imperial College London, UK
2001 – 2002	<b>Master of Science and Diploma of Imperial College in Computing Science</b> Faculty of Engineering/Dept. of Computing, Imperial College London, UK <b>- Awarded with Individual Project Distinction</b>
1998 – 2001	<b>Bachelor of Engineering in Mechatronics,</b> School of Engineering and Information Technology, University of Sussex, UK <b>- 1<sup>st</sup> Class Honours (top marks);</b> <b>- The Institution of Mechanical Engineers (IMechE) Best Student Award;</b> <b>- The Institution of Mechanical Engineers (IMechE) Best Final Year Project Award;</b> <b>- The Royal Navy Engineering Prize Sponsorship, Best Final Year Project Award.</b>

## Current positions

2018 - present	<b>Lecturer (assistant professor) in Robotics and Technology in Cancer</b> Department of Surgery & Cancer, Faculty of Medicine, Imperial College London, UK
2015 - present	<b>Lead, Human-centred Automation, Robotics and Monitoring for Surgery Lab,</b> Department of Surgery & Cancer, Faculty of Medicine, Imperial College London, UK
2014 – 2018	<b>Senior Post-Doctoral Research Fellow (to Paul Hamlyn Chair),</b> Department of Surgery & Cancer, Faculty of Medicine, Imperial College London, UK
2014 – 2018	<b>Senior Engineering Fellow, HELIX Centre, Institute of Global Health Innovation,</b> Imperial College London, UK

## Previous Positions

2012 – 2014	<b>Deputy Director, Hamlyn Centre for Robotic Surgery, Imperial College London</b>
2009 – 2012	<b>Hamlyn Research Fellow, Hamlyn Centre for Robotic Surgery, Imperial College</b>
2002 – 2009	<b>Research Associate, Dept. of Computing, Inst. of Biomed. Eng., Imperial College</b>

## Supervision of Postgraduate and Undergraduate Students

2012–present	Supervised <b>15 Masters students</b> (MRes/MSc degrees), <b>2 UROP student, 1 General Surgery ACF</b>
2015–present	Supervising or co-supervising <b>5 PhD students</b>

## Teaching Activities

2017-present	<b>BSc in Surgery and Anaesthesia – Imperial College London</b> Module: Robotic Surgery Technologies and Innovation
2012–present	<b>MRes on Medical Robotics and Image-Guided Intervention, Imperial College</b> Modules: Human Perception and Neuroergonomics, Human visual system, Eye-tracking technology, Visual Search strategies, Visual attention and Perceptual-Motor Integration for Surgical Robotics
2005–present	<b>MSc in Surgical Innovation, Imperial College London</b> Modules: Robotics in Surgery, Innovation in Robotic Surgery

## External Roles and Memberships

- **Member, IEEE**, Institute of Electrical and Electronics Engineers;
- **Member, EAES**, European Association for Endoscopic Surgery and Other Interventional Techniques;
- **Technology Committee, EAES**, European Association for Endoscopic Surgery and Other Interventional Techniques;
- **Member, iSMIT**, International Society for Medical Innovation and Technology;
- **Industrial Advisory Board, EU/H2020 funded project SARAS**, Smart Autonomous Robotic Assistant Surgeon (2018-2021, project ID: 779813);
- **Scientific Committee, CRUK Imperial Centre**, Theme 2 – Increasing the precision of cancer care;
- **Executive committee, Imperial Robotics Forum/Network**, a network consisting of 21 labs, 39 PIs, and over 150 researchers ([www.imperial.ac.uk/robotics/](http://www.imperial.ac.uk/robotics/));
- **Organising committee, CRAS**, Computer/Robot Assisted Surgery Symposium, 2011-present;
- **Expert reviewer for EU/FP7/H2020 projects** (expert ID: EX2012D129765);
- **Program committee**, Hamlyn Symposium on Medical Robotics, 2010-present;
- **Organising committee**, Hamlyn Symposium on Medical Robotics, 2010-2014;
- **Organising committee, MICCAI**, Medical Image Computing and Computer Assisted Interventions, 2009;
- **Associate Editor, ICRA**, International Conference on Robotics and Automation;
- **Guest editor, Frontiers in Robotics and AI**, section Biomedical Robotics;
- **Reviewer** for a number of scientific journals, including *IEEE Engineering in Medicine and Biology Magazine*, *IEEE Transactions on Medical Imaging*, *IEEE Transactions on Biomedical Engineering*, *International Journal of Medical Robotics and Computer Assisted Surgery*, *Journal of Healthcare Engineering*, *Journal of Neuroengineering and Rehabilitation*, *Expert Systems with Applications*, *International Journal of Advanced Robotic Systems*, *Frontiers*, *IEEE Reviews in Biomedical Engineering*, *IEEE Transactions on Robotics*; *International Journal of Human-Computer Studies*;
- **Reviewer** for a number of peer reviewed conferences, including *MICCAI*, *MIAR*, *IROS*, *ICRA*, *BioRob*, *Hamlyn Symposium on Medical Robotics*, *CRAS*, *IPCAI*, *IEEE Haptics*;
- **Organisation and Co-Chair**, Workshop on Ergonomics and Human-Robot Interaction, Hamlyn Symposium on Medical Robotics, 2012;
- **Co-Organiser**, Workshop on Flexible Access Surgery, Hamlyn Symposium on Medical Robotics, 2015.

## Prizes and Awards

- **Gerhard Buess Best Technology Award** (EndoDrone robot), 26th International EAES Congress, London, UK, 1st June 2018
- **SMIT Advanced Technology Award**, (ESD CYCLOPS robot), 29<sup>th</sup> Conference of the International Society for Medical Innovation and Technology (iSMIT), Torino, Italy, 9-10 Nov 2017;
- **Best Paper and Presentation Award**, (EndoDrone robot), 6<sup>th</sup> Workshop on Computer/Robot Assisted Surgery – CRAS 2016, Pisa, Italy, Sep 2016;
- **Best Innovation Award** for Technology Combining the patented ESD CYCLOPS and EndoDrone robots (WO2015036753 and WO2016141962), B.E.S.T. Innovation Symposium 2016, IRCAD/IhU, Strasbourg, France, Aug 2016;
- **Google Solve for <x>**, **EndoDrone**, showcased, Apr 2015;
- **Winning research poster** at the Hamlyn Symposium on Medical Robotics, 2008;
- **Research Excellence Award**, member of a team of 5, awarded the Imperial College Research Excellence Award, 2006 (£150k) for **blue-sky research on Medical Robotics**;
- **Prize for best research poster** at the Hounsfield Memorial Lecture, 2005;
- **Individual project distinction**, MSc Computing Science, Imperial College, 2002;
- **Royal Navy Engineering Prize Sponsorship**, Best Final Year BEng Engineering Project Award, University of Sussex, 2001;
- **IMechE 2001 Best Final Year Project Award**, University of Sussex, 2001;
- **IMechE 2001 Best Student Award**, University of Sussex, 2001.

## Invited Talks, Presentations, Interviews, Outreach

- **Excellence Seminar**, Essex University, 20/06/2018
- **WISS Centre, UCL**, Research Seminar, 14/05/2018
- **Imperial Festival 2018**, selected to exhibit during the main and school events (27-29 Apr 2018);
- **B.E.S.T. Surgical Innovation Symposium**, talk, 2016, IRCAD/IhU, Strasbourg, France, Aug 2016;
- **ICRA workshop** “Medical Cyber-Physical Systems”, 2010, Alaska;
- **BRC-MedCity technology showcase**, developed technology presentation, February 2017;
- **Rank Prize Funds** meeting, talk, 2005;
- **Graduate School of Engineering and Physical Science Research Symposium (EPSRC)**, presentation, 2005;
- **SET for Britain**: Invited presenter at Annual Parliamentary Reception for Britain’s Younger Engineers at the House of Commons, 2003, London;
- **Interviewed** for news-paper, Kathimerini, Greeks Abroad (Ελληνες Εκτός), 28.07.2014
- **Featured on New-Scientist magazine**: D. Graham-Row. (Feb 27th, 2006) “Operate on a heart without missing a beat”. Available: <http://www.newscientist.com/article/mg18925406.800>
- **TV interviews 2009, 2017, Greek National TV.**
- **Guardian Live: Robot Surgery Live, Science Museum**, Organisation Support, March 10<sup>th</sup> 2017

## Patents

- *Probe deployment device*; **WO2016141962 A1**; Filing date: Mar 6, 2015.
- *Surgical device and methods*; **WO2015036753 A1**; Filing date: Sep 10, 2014.
- *Robotic Control Device*; **WO2012080694 A1**; Filing date: Dec 13, 2011
- *Medical master/slave type device for minimally invasive surgery*; **WO2012153152 A1**; Filing date: May 14, 2012.
- *Method and system for stereo gaze tracking*; **US9503713B2**; Filing date: Oct 29, 2012. Licenced to Intuitive Surgical.
- *Single Incision Micro Ports Laparoscopic Endosurgery*; Priority filing **GB1806943.5** on 27 Apr 2018 .

## Publications

### Journals

- [1] K. Miyashita, T. J. C. Oude Vrielink, and G. Mylonas, "A cable-driven parallel manipulator with force sensing capabilities for high-accuracy tissue endomicroscopy," *International Journal of Computer Assisted Radiology and Surgery (IJCARS)*, 2018.
- [2] H. Ashraf, M. H. Sodergren, N. Merali, G. Mylonas, H. Singh, and A. Darzi, "Eye-tracking technology in medical education: A systematic review," *Medical Teacher*, pp. 1-8, 26/11/2017 2017.
- [3] A. A. Kogkas, A. Darzi, and G. P. Mylonas, "Gaze-contingent perceptually enabled interactions in the operating theatre," *International Journal of Computer Assisted Radiology and Surgery*, pp. 1-10, 07/2017 2017.
- [4] D. R. Leff, D. James, F. Orihuela-Espina, K.-W. Kwok, L. W. Sun, G. P. Mylonas, *et al.*, "The Impact of Expert Visual Guidance on Trainee Visual Search Strategy, Visual Attention and Motor Skills," *Frontiers in Human Neuroscience*, vol. 9, p. 526, 2015.
- [5] G. Paggetti, D. R. Leff, F. Orihuela-Espina, G. Mylonas, A. Darzi, G.-Z. Yang, *et al.*, "The role of the posterior parietal cortex in stereopsis and hand-eye coordination during motor task behaviours," *Cognitive processing*, vol. 16, pp. 177-190, 05/2015 2015.
- [6] D. R. James, D. R. Leff, F. Orihuela-Espina, K.-W. Kwok, G. P. Mylonas, T. Athanasiou, *et al.*, "Enhanced frontoparietal network architectures following “gaze-contingent” versus “free-hand” motor learning," *Neuroimage*, vol. 64, pp. 267-276, 2013.
- [7] G. P. Mylonas, K.-W. Kwok, D. R. James, D. Leff, F. Orihuela-Espina, A. Darzi, *et al.*, "Gaze-Contingent Motor Channelling, haptic constraints and associated cognitive demand for robotic MIS," *Medical image analysis*, vol. 16, pp. 612-631, 2012.
- [8] A. S. Chetwood, K.-W. Kwok, L.-W. Sun, G. P. Mylonas, J. Clark, A. Darzi, *et al.*, "Collaborative eye tracking: a potential training tool in laparoscopic surgery," *Surgical endoscopy*, vol. 26, pp. 2003-2009, 2012.

- [9] K.-W. Kwok, L.-W. Sun, G. P. Mylonas, D. R. James, F. Orihuela-Espina, and G.-Z. Yang, "Collaborative Gaze Channelling for Improved Cooperation During Robotic Assisted Surgery," *Annals of biomedical engineering*, vol. 40, pp. 2156-2167, 2012.
- [10] D. P. Noonan, D. S. Elson, G. P. Mylonas, A. Darzi, and G. Yang, "Laser Induced Fluorescence and Reflected White Light Imaging for Robot-Assisted MIS," *IEEE Transactions on Biomedical Engineering*, vol. 56, pp. 889-892, 2009.
- [11] D. Stoyanov, G. P. Mylonas, M. Lerotic, A. J. Chung, and G. Z. Yang, "Intra-Operative Visualizations: Perceptual Fidelity and Human Factors," *JOURNAL OF DISPLAY TECHNOLOGY*, vol. 4, pp. 491-501, 2008.
- [12] J. J. H. Leong, M. Nicolaou, L. Atallah, G. P. Mylonas, A. W. Darzi, and G. Z. Yang, "HMM assessment of quality of movement trajectory in laparoscopic surgery," *COMPUTER AIDED SURGERY*, vol. 12, pp. 335-346, 2006/10/01/ 2007.
- [13] G. P. Mylonas, A. Darzi, and G. Z. Yang, "Gaze-contingent control for minimally invasive robotic surgery," *Comput Aided Surg*, vol. 11, pp. 256-266, 2006.

#### Conference

- [1] M.-Y. Wang, A. A. Kogkas, and G. P. Mylonas, "Gaze Guided Assistive Robotic System for Daily-Living Activities," presented at the IEEE International Conference on Robot and Human Interactive Communication (RO-MAN), 2018 <in press>.
- [2] J. Gonzalez-Bueno Puyal, T. J. C. Oude Vrielink, A. Kogkas, and G. Mylonas, "Intuitive Gaze-Control of a Robotized Flexible Endoscope," presented at the International Conference on Intelligent Robots and Systems (IROS), 2018 <under review>.
- [3] T. J. C. Oude Vrielink\*, Y. W. Pang\*, M. Zhao, S.-L. Lee, A. Darzi, and G. P. Mylonas, "Surgical task-space optimisation of the CYCLOPS robotic system," presented at the International Conference on Intelligent Robots and Systems (IROS), 2018 <under review>.
- [4] F. Avila Rencoret, G. Mylonas, and D. Elson, "Robotic Wide-Field Optical Biopsy Imaging for Flexible Endoscopy," presented at the 26th International Congress of the European Association of Endoscopic Surgery (EAES), London, UK, 2018 <in press>.
- [5] F. Avila Rencoret, G. Mylonas, and D. Elson, "Robotic Wide-Field Optical Biopsy Endoscopy," presented at the OSA Biophotonics Congress: Biomedical Optics, Hollywood, FL, United States 2018 <in press>.
- [6] G. Pittiglio, A. Kogkas, J. Oude Vrielink, and G. Mylonas, "Dynamic Control of Cable Driven Parallel Robots with Unknown Cable Stiffness: a Joint Space Approach," presented at the International Conference on Robotics and Automation (ICRA), Brisbane, Australia, 2018 <in press>.
- [7] T. J. C. Oude Vrielink, M. Zhao, A. Darzi, and G. P. Mylonas, "ESD CYCLOPS: A new robotic surgical system for GI surgery," presented at the International Conference on Robotics and Automation (ICRA), Brisbane, Australia, 2018 <in press>.
- [8] D. Achancaray-Diaz, J. Andreu-Perez, and G. Mylonas, "An Affordable Post-Stroke Neuro-Rehabilitation System For Developing Countries," presented at the Wellcome Trust Centre for Global Health Research Annual Scientific Meeting, Royal Academy of Medical Sciences, 2017.
- [9] T. J. C. Oude Vrielink, A. Darzi, and G. Mylonas, "Pre-clinical in vivo validation of the CYCLOPS surgical system for ESD," presented at the 29th Conference of the international Society for Medical Innovation and Technology (SMIT), Turin, Italy, 2017.
- [10] G. Mylonas, N. Patel, J. Teare, and A. Darzi, "CYCLOPS: An endoscope attachment for Endoscopic Submucosal Dissection," presented at the SAGES Annual Meeting, Houston 2017.
- [11] D. Z. Khan, T. J. C. Oude Vrielink, H. Marcus, A. Darzi, and G. Mylonas, "NeuroCYCLOPS: Development and Preclinical Validation of a Robotic Platform for Endoscopic Neurosurgery," presented at the European Association of Neurosurgical Societies (EANS 2016), Athens, Greece, 2016.
- [12] T. J. C. Oude Vrielink, A. Darzi, and G. Mylonas, "microCYCLOPS: A Robotic System for Microsurgical Applications," presented at the 6th Joint Workshop on New Technologies for Computer/Robot Assisted Surgery (CRAS 2016) Pisa, Italy, 2016.
- [13] F. B. Avila Rencoret, D. Elson, and G. Mylonas, "A Robotic Hyperspectral Scanning Framework for Endoscopy," presented at the 6th Joint Workshop on New Technologies for Computer/Robot Assisted Surgery (CRAS 2016) Pisa, Italy, 2016.
- [14] A. Kogkas, A. Darzi, and G. P. Mylonas, "Gaze-Driven Human-Robot Interaction in the Operating Theatre," presented at the 6th Joint Workshop on New Technologies for Computer/Robot Assisted Surgery (CRAS 2016) Pisa, Italy, 2016.

- [15] A. A. Kogkas, M. Sodergren, A. Darzi, and G. Mylonas, "Macro- and micro-scale 3D gaze tracking in the operating theatre," presented at the Hamlyn Symposium on Medical Robotics, London, 2016.
- [16] T. J. C. Oude Vrielink, D. Z. Khan, H. Marcus, A. Darzi, and G. Mylonas, "NeuroCYCLOPS: a novel system for endoscopic neurosurgery," presented at the Hamlyn Symposium on Medical Robotics, London, 2016.
- [17] F. B. Avila-Rencoret, D. S. Elson, and G. Mylonas, "Towards a robotic-assisted cartography of the colon: A proof of concept," presented at the Robotics and Automation (ICRA), 2015 IEEE International Conference on, 2015.
- [18] F. Avila-Rencoret, G. Mylonas, and D. S. Elson, "A Novel Endoscopic Scanning-Probe Device for Rapid Screening of Gastrointestinal Dysplasia," presented at the Bioengineering Society, London, 2014.
- [19] G. P. Mylonas, V. Vitiello, T. P. Cundy, A. Darzi, and G.-Z. Yang, "CYCLOPS: A versatile robotic tool for bimanual single-access and natural-orifice endoscopic surgery," presented at the Robotics and Automation (ICRA), 2014 IEEE International Conference on, 2014.
- [20] V. Vitiello, T. Cundy, A. Darzi, G. Yang, and G. Mylonas, "Augmented Instrument Control for the CYCLOPS Robotic System," presented at the The Hamlyn Symposium on Medical Robotics, 2014.
- [21] L. Zhang, S.-L. Lee, G.-Z. Yang, and G. P. Mylonas, "Semi-autonomous navigation for robot assisted tele-echography using generalized shape models and co-registered RGB-D cameras," presented at the Intelligent Robots and Systems (IROS 2014), 2014 IEEE/RSJ International Conference on, 2014.
- [22] G. P. Mylonas, P. Giataganas, M. Chaudery, V. Vitiello, A. Darzi, and G. Z. Yang, "Autonomous eFAST Ultrasound Scanning by a Robotic Manipulator using Learning from Demonstrations," presented at the 2013 IEEE/RSJ International Conference on Intelligent Robots and Systems, 2013.
- [23] G. P. Mylonas, J. Totz, V. Vitiello, C. J. Payne, and G.-Z. Yang, "A novel low-friction manipulator for bimanual joint-level robot control and active constraints," presented at the Intelligent Robots and Systems (IROS), 2012 IEEE/RSJ International Conference on, 2012.
- [24] D. James, D. Leff, F. Orihuela-Espina, K. Kwok, G. Mylonas, S. Gohil, *et al.*, "Influence of heart rate and stress on cortical haemodynamics associated with learning: a longitudinal functional Near Infrared Spectroscopy (fNIRS) study," presented at the OHBM 2011, 2011.
- [25] D. R. C. James, D. R. Leff, L. W. Sun, F. Orihuela-Espina, K. W. Kwok, G. P. Mylonas, *et al.*, "Neuroergonomic assessment of collaborative gaze control for robotic surgery: a functional Near Infrared Spectroscopy (fNIRS) study," presented at the Annual Meeting of the Organization for Human Brain Mapping (OHBM), 2011.
- [26] K. Fujii, G. Mylonas, and G.-Z. Yang, "Stealth Calibration Eye Tracking Algorithm for Minimally Invasive Surgery " presented at the Hamlyn Symposium 2011, London, 2011.
- [27] G. Paggetti, G. Mylonas, and e. al., "Analysis of Superior and Inferior Parietal Lobe Function during Depth Perception in Robotic Surgery," presented at the Annual Meeting of the Organization for Human Brain Mapping (OHBM), 2011.
- [28] G. P. Mylonas, L.-W. Sun, K.-W. Kwok, D. R. C. James, F. Orihuela-Espina, and G.-Z. Yang, "Collaborative Gaze Channelling for Cooperation within a Shared Tele-Surgery Environment " presented at the Hamlyn Symposium 2011, London, 2011.
- [29] N. T. Clancy, G. P. Mylonas, G. Z. Yang, and D. S. Elson, "Gaze-contingent autofocus system for robotic-assisted minimally invasive surgery," presented at the Conf Proc IEEE Eng Med Biol Soc., Boston, 2011.
- [30] D. R. C. James, F. Orihuela-Espina, D. Leff, G. P. Mylonas, K. W. Kwok, A. Darzi, *et al.*, "Neuroergonomic assessment of the robotic enhancement of surgery," presented at the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES), Maryland, USA, 2010.
- [31] G. Paggetti, G. Menegaz, D. Leff, F. Orihuela-Espina, G. P. Mylonas, M. Lerotic, *et al.*, "An Assessment of Parietal Function during Depth Perception and Coordination in Surgical Robotics," presented at the 16th Annual Meeting of the Organization for Human Brain Mapping (HBM), Barcelona, Spain, 2010.
- [32] D. P. Noonan, G. P. Mylonas, S. Jianzhong, C. J. Payne, A. Darzi, and Y. Guang-Zhong, "Gaze contingent control for an articulated mechatronic laparoscope," presented at the Biomedical Robotics and Biomechatronics (BioRob), 2010 3rd IEEE RAS and EMBS International Conference on, 2010.
- [33] D. R. C. James, F. Orihuela-Espina, D. R. Leff, G. P. Mylonas, K. W. Kwok, A. Darzi, *et al.*, "Cognitive burden estimation for visuomotor learning with fNIRS," presented at the Med Image Comput Comput Assist Interv, Germany, 2010.

- [34] K.-W. Kwok, G. Mylonas, L. Sun, M. Lerotic, J. Clark, T. Athanasiou, *et al.*, "Dynamic Active Constraints for Hyper-Redundant Flexible Robots," presented at the Medical Image Computing and Computer-Assisted Intervention – MICCAI 2009, 2009.
- [35] K. W. Kwok, L. W. Sun, V. Vitiello, D. R. C. James, G. P. Mylonas, A. Darzi, *et al.*, "Perceptually docked control environment for multiple microbots: application to the gastric wall biopsy," presented at the Intelligent Robots and Systems, 2009. IROS 2009. IEEE/RSJ International Conference on, 2009.
- [36] M. Visentini-Scarzanella, G. P. Mylonas, D. Stoyanov, and G. Z. Yang, "i-BRUSH: A Gaze-Contingent Virtual Paintbrush for Dense 3D Reconstruction in Robotic Assisted Surgery," presented at the MEDICAL IMAGE COMPUTING AND COMPUTER-ASSISTED INTERVENTION - MICCAI 2009, PT I, PROCEEDINGS, Imperial Coll, London, ENGLAND, 2009.
- [37] D. P. Noonan, G. P. Mylonas, A. Darzi, and G.-Z. Yang, "Gaze contingent articulated robot control for robot assisted minimally invasive surgery," presented at the Intelligent Robots and Systems, 2008. IROS 2008. IEEE/RSJ International Conference on, 2008.
- [38] B. Lo, A. J. Chung, D. Stoyanov, G. Mylonas, and Y. Guang-Zhong, "Real-time intra-operative 3D tissue deformation recovery," presented at the Biomedical Imaging: From Nano to Macro, 2008. ISBI 2008. 5th IEEE International Symposium on, 2008.
- [39] G. Z. Yang, G. P. Mylonas, K. W. Kwok, and A. Chung, "Perceptual docking for robotic control," presented at the MEDICAL IMAGING AND AUGMENTED REALITY, PROCEEDINGS, Univ Tokyo, Tokyo, JAPAN, 2008.
- [40] J. J. H. Leong, L. Atallah, G. P. Mylonas, D. R. Leff, R. J. Emery, A. W. Darzi, *et al.*, "Investigation of partial directed coherence for hand-eye coordination in laparoscopic training," presented at the MEDICAL IMAGING AND AUGMENTED REALITY, PROCEEDINGS, Univ Tokyo, Tokyo, JAPAN, 2008.
- [41] G. P. Mylonas, K. W. Kwok, A. Darzi, and G. Z. Yang, "Gaze-Contingent Motor Channelling and Haptic Constraints for Minimally Invasive Robotic Surgery," presented at the MEDICAL IMAGE COMPUTING AND COMPUTER-ASSISTED INTERVENTION - MICCAI 2008, PT II, PROCEEDINGS, New York, NY, 2008.
- [42] D. Stoyanov, G. P. Mylonas, and G. Z. Yang, "Gaze-Contingent 3D Control for Focused Energy Ablation in Robotic Assisted Surgery," presented at the MEDICAL IMAGE COMPUTING AND COMPUTER-ASSISTED INTERVENTION - MICCAI 2008, PT II, PROCEEDINGS, New York, NY, 2008.
- [43] M. Lerotic, A. Chung, G. Mylonas, and G.-Z. Yang, "pq -space Based Non-Photorealistic Rendering for Augmented Reality," presented at the Medical Image Computing and Computer-Assisted Intervention – MICCAI 2007, 2007.
- [44] G. P. Mylonas, D. Stoyanov, A. Darzi, and G. Z. Yang, "Assessment of perceptual quality for gaze-contingent motion stabilization in robotic assisted minimally invasive surgery," presented at the 10th International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI 2007), 2007.
- [45] D. Stoyanov, G. P. Mylonas, F. Deligianni, A. Darzi, and G. Z. Yang, "Soft-tissue motion tracking and structure estimation for robotic assisted MIS procedures," presented at the LECT NOTES COMPUT SC, 2005.
- [46] G. P. Mylonas, D. Stoyanov, F. Deligianni, A. Darzi, and G. Z. Yang, "Gaze-contingent soft tissue deformation tracking for minimally invasive robotic surgery," presented at the MEDICAL IMAGE COMPUTING AND COMPUTER-ASSISTED INTERVENTION - MICCAI 2005, PT 1, Palm Springs, CA, 2005.
- [47] G. P. Mylonas, A. Darzi, and G. Z. Yang, "Gaze contingent depth recovery and motion stabilisation for minimally invasive robotic surgery," presented at the MEDICAL IMAGING AND AUGMENTED REALITY, PROCEEDINGS, Beijing, PEOPLES R CHINA, 2004.

#### Book chapter

- [1] G. P. Mylonas and G. Yang, "Eye Tracking and Depth from Vergence," in *Next Generation Artificial Vision Systems: Reverse Engineering the Human Visual System*, A. Bharath and M. Petrou, Eds., ed: ARTech House, 2008, pp. 187-211.