MARIUS GEORGE LINGURARU

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EDUCATION

1999-2002   *PhD in Information Engineering (Medical Imaging)*. University of Oxford, Faculty of Physical Sciences, Department of Engineering Science, Medical Vision Laboratory, Oxford, UK. Developed an automatic method that models human vision for the early detection of signs of breast cancer in X-ray mammography. Investigated the image-based generalization of parameters in anisotropic diffusion. Thesis *Feature Detection in Mammographic Image Analysis*.

1997-1998   *MA in British Cultural Studies*. "Lucian Blaga" University, Faculty of Letters, History and Journalism, Department of British and American Studies, Sibiu, Romania. Top of the course with G.P.A. 10/10. Thesis *Nation within Nation: The Cases of Identities in the British Isles* at grade 10/10.

1996-1997   *MSc in Parallel and Distributed Processing Systems*. "Lucian Blaga" University, Faculty of Engineering, Department of Computer Science and Automatic Control, Sibiu, Romania. Top of the course with G.P.A. 9.66/10. Thesis *Medical Applications of Computers and Image Segmentation* at grade 10/10.

1991-1996   *BSc in Computer Science*. "Lucian Blaga" University, Faculty of Engineering, Department of Computer Science and Automatic Control, Sibiu, Romania. Top of 3/5 years with G.P.A. 9.35/10. Degree exams with G.P.A. 10/10. Dissertation *Graphic Tools under XWindow for Image Segmentation* at grade 10/10.

June 1991   *Baccalaureate* at "Gheorghe Lazar" College, Sibiu, Romania. A level equivalent: Mathematics (10/10), Physics (9.45/10), Romanian literature (8.32/10).

RESEARCH EXPERIENCE

2004-present   *Post-Doctoral Fellow*. Harvard University, Division of Engineering and Applied Sciences, Cambridge, Massachusetts, USA. Key personnel in the National Institute of Health (NIH) funded Biomedical Research Partnership (BRP) project on Image-Guided Intracardiac Beating Heart Surgery. Developed segmentation and tracking algorithms in four-dimensional cardiac ultrasound for real-time computer-assisted minimally invasive and image-guided robotics surgery. Closely collaborate with clinicians, and industrial and academic research partners, supervise students.

2003-2005   *Post-Doctoral Expert Engineer*. French National Institute of Research in Informatics and Automatics (INRIA), EPIDAURE Research Group, Sophia Antipolis, France. Coordinated at INRIA the national project GIS-PRIONS funded by the National Institute of Health and Medical Research (INSERM) France. Developed the first automatic method that relates multi-sequence brain MRI to the detection and characterization of Creutzfeldt-Jakob Diseases. Worked in a strongly clinically based project whose results are investigated in hospitals in France and USA.

2001-2002   *Independent Consultant*. SIEMENS Molecular Imaging, Oxford, UK. Worked in digital mammography, including breast cancer detection research, image annotation and digitization, data validation and testing.

1998-2004   *Assistant Professor*. "Lucian Blaga" University, Faculty of Engineering, Department of Computer Science, Sibiu, Romania. Research related to medical informatics and medical image analysis.

TEACHING EXPERIENCE

2003-2005   *Assistant Professor* (part-time). University of Nice Sophia-Antipolis, Faculty of Sciences, Department of Physics, Nice, France. Taught medical image processing at graduate level.

2000-2002   *Departmental Demonstrator*. University of Oxford, Department of Engineering Science, Oxford, UK. Taught computer programming and architecture, algorithm design and mathematical implementations.

1998-2004   *Assistant Professor*. "Lucian Blaga" University, Faculty of Engineering, Department of Computer Science, Sibiu, Romania. Taught computer programming, operating systems, Web design and medical informatics. *Magna cum Laude* for teaching competence.

OTHER PROFFESIONAL EXPERIENCE

2004-present *Expert Consultant.* Romanian Ministry of Education and Research, Bucharest, Romania. Reviewer of grant proposals for the international program of Excellence in Research; evaluator of national research grants for the Romanian National Council of Scientific Research in Higher Education; member of the commission for doctoral academic scholarships.

1998-1999 *System Engineer.* S.C. SIMONT S.A., Sibiu, Romania. System management, computer programming, Web design, implementing new computer techniques.

1996-1997 *Head of Statistics-Computing Office.* Chancellor's Office of "Lucian Blaga" University, Sibiu, Romania. Computer programming, statistics, links with the Ministry of Education from Romania, public relations and general office management.

1996-1997 *Organizer and Coordinator for the city of Sibiu* of the project "Social and Cultural Activities" financed by The Bureau for Central and Eastern Europe, A Joint Initiative of Bilance and Mensen in Nod, Holland together with The Cultural Initiative for Students (ICS), Romania. Organized and advertised social and cultural activities, implemented the activities of the organization in Sibiu.

SCHOLARSHIPS AND HONORS

2006-2007 Bibliographical profile in *Who's Who in the World* and *Who's Who in Science and Engineering*, Marquis Publishing.

2000 Winner of the runner-up prize for *Excellence in Engineering by a Younger Engineer of Britain* at the Competition for Britain's Younger Engineers at the Houses of Parliament, London, UK.

1999-2002 *Scatcherd European Scholarship* from the University of Oxford and *Overseas Research Scholarship* from the Committee of Vice-Chancellors and Principals of the Universities of UK to read for the degree of PhD in Information Engineering (Medical Imaging).

1997-1998 *Academic Scholarship* from the Romanian Ministry of Education for MA in British Cultural Studies.

1996-1997 *Academic Scholarship* from the Romanian Ministry of Education for MSc in Parallel and Distributed Processing Systems.

1991-1996 *Academic Scholarship* from the Romanian Ministry of Education for BSc in Computer Science.

1996 *TEMPUS Scholarship* (European Union funding) to develop the final year project as research student within the Machine Vision Research Group, Faculty of Engineering, Coventry University, UK.

1994 Scholarship from The Cultural Service of France and the University of Rennes-I, France, for one month work-studies in a French enterprise and university laboratories.

PROFESSIONAL SERVICE

Collaborations (including Publications):
EPIDAURE/ASCLEPIOS Research Group, INRIA Sophia Antipolis, France.
Wolfson Medical Vision Laboratory, Robotics Group, Department of Engineering, University of Oxford, Oxford, UK.
Medical Image Analysis Group, Institute for Surgical Technology and Biomechanics, University of Bern, Switzerland.
Institute of Computer Science, the Foundation for Research and Technology – Hellas, Heraklion, Crete, Greece.
UPR60-LENAResearch Group, CNRS, Paris, France.
Department of Computer Science and Automatic Control, "Lucian Blaga" University, Sibiu, Romania.
Department of Cardiovascular Surgery, Children's Hospital, Harvard Medical School, Boston, Massachusetts, USA.
Department of Cardiology, Children's Hospital, Harvard Medical School, Boston, Massachusetts, USA.
Breast Cancer Unit, Churchill Hospital, Oxford, UK.
Department of Neuroradiology, Pitie-Salpetriere Hospital, Paris, France.
CRMBM, Faculty of Medicine, Marseille, France.
Unit 360,INSERM, Pitie-Salpetriere Hospital, Paris, France.
Philips Medical Systems, Andover, Massachusetts, USA.

Reviewing:

Journals: IEEE Transactions on Medical Imaging, IEEE Transactions on Image Processing, Medical Image Analysis.

Conferences: Medical Image Computing and Computer Assisted Intervention (MICCAI), International Conference on Robotics and Automation (ICRA).

Grants: Excellence in Research Program and National Research Grant Competition Romanian National Council of Scientific Research in Higher Education.

Dissertations: Department of Computer Science and Automatic Control, "Lucian Blaga" University, Sibiu, Romania; Department of Computer Science, University of Cape Town, Cape Town, South Africa.

Invited Presentations and Seminars:

Department of Biomedical Engineering, Columbia University, New York NY, USA, 2006.
Department of Bioengineering, Imperial College, London, UK, 2006.
Surgical Planning Laboratory, Brigham and Women's Hospital, Harvard Medical School, Boston MA, USA, 2006.
Department of Biomedical Engineering, Yale University, New Haven CT, USA, 2006.
Duke Advanced Imaging Laboratory, Duke University, Durham NC, USA, 2006.
European Commission's International Colloquium *Brain Drain, Brain Gain: New Challenges*, Paris, France, 2004.
Department of Neuroradiology, Pitie-Salpetriere Hospital, Paris, France, 2004.
Department of Engineering, University of Oxford, Oxford, UK, 2002.
Department of Computer Science and Automatic Control, "Lucian Blaga" University, Sibiu, Romania, 2001.
Department of Computer Science, University of Hull, Hull, UK, 2001.

Organizing and Chairing:

Co-Chair of the scientific sessions of the *Franco-British Seminar on Biomedical Engineering*, Paris, France, March 2004.
Chair of the Imaging, Robotics and Virtual Reality Session of the *Tenth World Congress on Health and Medical Informatics Medinfo2001*, London, UK, September 2001.
Member of the Organizing Committee of *A New Initiative for Younger Engineers,* an annual Competition/Reception for Britain's Younger Engineers at the Houses of Parliament, London, UK, 2000.
Scientific Secretary and Chair of the Telematics and Telemedicine Session of the *22nd Romanian Conference on Medical Informatics with international participation Medinf'99*, Sibiu, Romania, October 1999.

Affiliations:

Institution of Electrical Engineers (IEE).
Medical Image Computing and Computer-Assisted Intervention (MICCAI) Society.
International Society for Optical Engineering (SPIE).
Romanian Society of Medical Informatics.

EXTRACURRICULAR ACTIVITIES

2005-present Member of the Safety Committee of the Division of Engineering and Applied Sciences of Harvard University.

2001-2002 Member of the Committee and IT Secretary of Oxford University European Affairs Society.

1997-1998 Touch Romania Inc., Sibiu, Romania. Volunteer work in distributing material aid to disadvantaged children.

1996 Founding member of The Cultural Initiative for Students (ICS), Romania, student society with general social and cultural interests.

1992-1996 Course representative on the University Council of "Lucian Blaga" University, Sibiu, Romania.

1995-1996 Volunteer aid at founding the American Library of Romania, Sibiu, Romania.

1994 Bradet Special Needs School, Brasov, Romania. Volunteer aid in building a playground and organizing entertaining activities for children. Project supported by Groundwork National Office, Birmingham, UK, and Relief Fund For Romania, London, UK.

LANGUAGES

Romanian: Native; **English:** Fluent; **French:** Fluent; **German:** Basic; **Italian:** Basic.