

Alper Yaman, PhD

Education & Training

- ◆ PhD. in Biomedical Science
Bogazici University, Institute of Biomedical Engineering
PhD Thesis: MRI assessment of in vivo epimuscular myofascial force transmission.
- ◆ MSc. in Biomedical Science
Bogazici University, Institute of Biomedical Engineering
Master Thesis: Load Independent Trajectory Control for an Artificial Muscle.
- ◆ BSc. in Physics, Pure Physics Option
Bogazici University, Faculty of Arts and Sciences, Department of Physics

Research Interests

- ◆ Biomechanics
- ◆ Biomedical devices and biomechatronics
- ◆ Magnetic resonance imaging (MRI), diffusion tensor imaging (DTI)
- ◆ Signal & image processing and visualization, Non-rigid registration
- ◆ Computer programming

Professional Experience

- ◆ Assist. Prof., Yeditepe University (Sept 2015 – present)
- ◆ Post-doc Researcher, Tennessee State University (Aug 2014 – Aug 2015)
- ◆ Business Development Executive, Artesis (Feb 2014 – Aug 2014)
Development of the business model of the system within a web project aiming viral marketing
- ◆ R&D Engineer, Artesis (June 2012 – Feb 2014)
Improvement of model based fault detection system for 3-phase electrical motors
Adaptation of the system for various types of data collectors
- ◆ Software Developer, Coretech (Feb 2012 – June 2012)
- ◆ Researcher, Bogazici University (Sept 2008 – Feb 2012)
PhD Thesis: MRI assessment of in vivo epimuscular myofascial force transmission
Development of Graphical User Interface (Matlab) named BUMILCAP (Bogazici University Cardiac Analysis Package) for tag analysis of DICOM images of MRI.
- ◆ Software Engineer at SESTEK A.Ş. (July 2007 – Sept 2008)
Development of speech recognition software (C++) for PDAs to run programs by speech orders.
Announcing software using TTS (Text-To-Speech) API (C#).
Word spotting software (C#) for call centers catching special keywords in recorded wav files.
- ◆ R&D Engineer at ESIT Electronic (June 2005 – July 2007)
Development of database software for embedded Windows CE OS.
Mobile device application (C#) for QTEK S200 for calibration tests, managing database with Sql CE.
- ◆ Research Assistant, Computer and Educational Technology Department, Bogazici University (Oct 2001- June 2005)
Teaching basics of operating systems, office programs, web design& programming
Adaptation of “INTEL Teach to the Future” Project to Turkish Curriculum

Skills

- ◆ Languages: Turkish (Native), English (Fluent)
- ◆ Computer Skills
 - Programming: C&C++, MFC& Windows API, C#, Matlab& Simulink, LabView, OpenCV, OpenGL (Beginner), ITK& VTK (Intermediate), GPU programming& Cuda (Intermediate), Python & Kivy (Beginner), Java & Android (Intermediate)
 - Databases: MySql, SQL Server, Oracle (Basic)

- Software: Windows and Linux (Ubuntu) OS, Siemens Sygno

Publications & Conferences

◆ Papers:

- Yaman A., Ozturk, C., Huijing, P.A. and Yucesoy, C.A., 2013. MRI Assessment of Mechanical Interactions between Human Lower Leg Muscles in vivo. *Journal of Biomechanical Engineering*, 135 (9), 091003 1-9.
- Huijing, P.A., Yaman A., Ozturk, C. and Yucesoy, C.A., 2011. Effects of knee joint angle on global and local strains within human triceps surae muscle: MRI analysis indicating in vivo myofascial force transmission between synergistic muscles. *Surgical and Radiologic Anatomy*, 33, 869-879.

- ◆ Book Chapter: Ozturk, C., Yaman, A., Yucesoy, C.A. and Huijing, P.A., 2012. Advanced MRI Techniques for in vivo Biomechanical tissue Movement Analysis. In: *Fascia: The Tensional Network of the Human Body*. R. Schleip, T. Findley, L. Chaitow and P. A. Huijing Eds. London, Elsevier Health Sciences imprint Churchill Livingstone: 489-495.

◆ Conferences

- Yucesoy, C.A., Yaman, A., Ozturk C. and Huijing, P.A., 2011. MRI analysis show in vivo occurrence of myofascial force transmission. *International Society of Biomechanics XXIIIrd Congress*. Brussels, Belgium.
- Yaman, A., Ledesma-Carbayo, M.J., Baan, G.C., Huijing, P.A., Ozturk, C., and Yucesoy, C.A., 2009. Substantial strain in extramuscular connections show exposure to force: a major role in epimuscular myofascial force transmission. *Second International Fascia Research Congress*. Amsterdam, the Netherlands.
- Yaman, A., Ledesma-Carbayo, M.J., Baan, G.C., Huijing, P.A., Ozturk, C., and Yucesoy, C.A., 2009. Assessment using MRI shows that inter-synergistic as well as inter-antagonistic epimuscular myofascial force transmission has sizable effects within the entire human lower leg, in vivo. *Second International Fascia Research Congress*. Amsterdam, the Netherlands.
- Yaman, A., Baan, G.C., Huijing, P.A., Ozturk, C., and Yucesoy, C.A., 2009. In vivo human muscle MRI shows myofascial force transmission induced serial inhomogeneity of sarcomere lengths. *Workshop on Multi-Scale Muscle Mechanics*, Woods Hole, U.S.A.
- Yaman, A., Ledesma-Carbayo, M.J., Baan, G.C., Huijing, P.A., Yucesoy, C.A. and Ozturk, C., 2009. MRI assessment of passive muscular mechanics in vivo using intensity based nonrigid b-spline registration: effects of epimuscular myofascial force transmission. *International Society for Magnetic Resonance in Medicine (ISMRM) 17th Scientific Meeting & Exhibition*, Honolulu, Hawaii, USA.

Awards

- ◆ Honor student (Necmi Tanyolac Award for contributions to Biomedical research), Bogazici University, Istanbul, 2014.
- ◆ Postdoctoral research grant by The Scientific and Technological Research Council of Turkey (TUBITAK), 2014.