Georgios Christodoulakis
Investing in Knowledge

Personal Details

Address: Crete, Greece
Nationality: Greek
Date of Birth: 29 December 1975
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Academic Qualifications

- **2004 – 2006:   Master of Philosophy in Engineering (MPhil)**
  University of Wales Swansea, Swansea, United Kingdom

  Thesis Topic: "Development of a Parameterised Human Musculoskeletal Model".
  - Bioengineering - Modelling, Programming, Simulation.

- **2002 – 2003:   Master of Science in Engineering by Research (MRes)**
  University of Warwick, Coventry, United Kingdom

  Thesis Topic: "Rocker Soles for Diabetic Patients"**.**
  - Bioengineering - Modelling, Simulation, Experimentation.

- **1994 – 1997:   Bachelor of Engineering in Robotic & Electronic Engineering (BEng)**
  University of Salford, Manchester, United Kingdom

  Thesis Topic: "Designing & Implementing the P.I. Controllers of the Hip System of a Biped Robot".
  - Robotics - Modelling, Simulation, Experimentation.

Awards

- **"**Arthur Shercliff Travel Award 2002", University of Cambridge (₤900).

Participation in International Contests

- SPoSER (Solar Powered Surveillance and Exploration Robot) – Tech Briefs Design Contest 2015 (https://contest.techbriefs.com/2015/entries/aerospace-and-defense/5781).

Publications

- Christodoulakis, G., K. Busawon, et al. (2010). On the filtering and smoothing of biomechanical data. 7th IEEE IET International Symposium on Communication Systems, Networks, and Digital Signal Processing. IEEE. Newcastle upon Tyne, UK**:** 512-516.
- Christodoulakis, G., Marias, K., Notas, G., Kampanis, N., Sfakianakis, S. A Technological Platform to Support Education in Regional Anaesthesia with Patient-Specific Virtual Physiological Human (VPH)-Based Models (2016). In: Proceedings of XIV Mediterranean Conference on Medical and Biological Engineering and Computing. Paphos, Cyprus: 926-929.
- Farmaki, C., Christodoulakis, G., Sakkalis, V. (2016). Applicability of SSVEP-based brain-computer interfaces for robot navigation in real environments. 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE. Orlando, FL:2768-2771.

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Personal Skills

- **Languages**
  Fluent conversational and written English, Greek.

- **Computer Literacy**
  Matlab, Simulink, AutoCAD, Anybody Technology, BodyBuilder, Vicon Motion Analysis System (Workstation/Nexus), C3DEditor, Microsoft Office Suite, Scientific Word (Mackichan), C/C++, Java, Android Studio, SolidWorks (3D Modelling, Motion Simulation, FEA), Arduino Microcontroller Platform, HTML5, CSS3, PostgreSQL, DICOM, Eagle, SparkJava Micro Framework, C# / .NET Core (in progress).

- **Other**
  Completed National Army Service (03/1999 – 08/2000).

Working Experience

- **01/01/2019 – Present**
  - ➢ **Hellenic Mediterranean University, Biomedical Informatics and eHealth Laboratory (BMI lab)**
    - o **Smart Insole - An innovative wearable sensor for continuous analysis and evaluation of human gait. Ερευνώ-Δημιουργώ-Καινοτομώ - Τ1ΕΔΚ-01888 (ongoing).**
      - ▪ Design and construction of an insole with pressure sensors with the use of 3D printing technology, implementation of the electronics for data acquiring and their wireless transmission, development of gait algorithms, and storing, processing and recalling of the biosignals and results through the development of web services.
  - ➢ **Foundation for Research and Technology, Computational and BioMedicine Laboratory (CBML)**
    - o **ΚΡΗΠΙΣ - Utilizing new technologies to monitor, support and improve the quality of life of patients and other vulnerable groups at home (ΠΟΙΟΤΗΤΑ ΖΩΗΣ ΙΙ). ΕΠΑνΕΚ - 2017ΣΕ14510011 (ongoing).**
      - ▪ Development of a wearable device for non-invasive analysis of vessel flows as well as a desktop application, an android-based mobile application and a cloud service for data management.

- **11/2013 – 12/2018**
  Foundation for Research and Technology, Computational and BioMedicine Laboratory (CBML)
  - ➢ **RASIMAS - Regional Anaesthesia Simulator and Assistant. FP7-ICT-2013-10-610425 (completed).**
    - o Architectural design and implementation of the integration of a system of local anesthesia simulators into selected European hospitals for storing and processing data and their two-way communication with a centralized system for remote access.
  - ➢ **Robotic Platform Driven by EEG. FORTH (completed).**
    - o Development and construction of a mobile robotic platform and implementation of its wireless communication with an EEG system for navigating the robot through the operation of the brain.

- **01/2012 – 10/2013**
  Personal Development
  - ➢ **Integrated Design**
    3D Design/Modelling, Statics & Dynamics, Motion Simulation & Mechanism Design, Finite Element Analysis.
  - ➢ **Programming**
    C++, Java, HTML&CSS.
  - ➢ **Embedded Systems – Microcontrollers / Programming(C/C++) / Mechatronics**
    Arduino Platform, Robotics.

- **09/2007 – 11/2011**
  Northumbria University (UK)
  - ➢ **Postgraduate Researcher (PGR)**
    - o Musculoskeletal Modelling, Simulation, 3D Motion Analysis, Experimentation.

- **02/1998 – 07/2007**
  In the periods among my National Army Service and my two Master degrees I was working in numerous, not related with science, jobs. I was primarily working as a jeweler at the family business, and during other shorter periods as a clerk and technical staff at the National Electricity Company, and as a supervisor during the Athens 2004 Olympics.

References

Upon request (5).