

Tamás D. Nagy

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Phone: +36-20-4242351
Citizenship: Hungarian
Year of birth: 1991

Education

PhD in the Doctoral School of Applied Informatics and Applied Mathematics 2016-
Óbuda University
Supervisor: Tamás Haidegger, PhD

M. Sc. in Computer Science Engineering 2014-2016
Faculty of Science and Informatics, University of Szeged
Grade: excellent
Thesis Title: Universal hardware-in-the-loop power source simulator
Fellowship granted by the Republic 2015

B. Sc. in Molecular Bionics 2010-2014
Faculty of Science and Informatics, University of Szeged
Grade: excellent
Thesis Title: Efficient processing of photoplethysmograph signals

Research experience

PhD student 2016-
Antal Bejczy Center for Intelligent Robotics, Óbuda University

- Analysis and low level automation of movement patterns in robot surgery interventions

Technical assistant 2016
Department of Software Engineering in cooperation with
Noise Research Group, University of Szeged

- Fetal heart sound measurements, analysis of the measured signals, related software development
- Pulse transmit time measurements using ECG and photoplethysmograph signals

Student Researcher

2012-2016

Noise Research Group, University of Szeged

- Development of battery emulator setups using Arduino Uno and NI CompactRIO platforms
(Participation in project: Renewable Energy Virtual Laboratory - REVLAB, Presentation, M. Sc. Thesis)
- Development of universal wireless sensor interface
(M.Sc. Summer Practice)
- ECG signal processing related to the measurement of baroreflex sensitivity
- Examination of heart sound measurements in terms of educational usage
(Participation in project: Telemedicine Oriented Research in the Fields of Mathematics, Informatics and Medical Sciences)
- Fetal heart sound measurements, analysis of the measured signals
(Participation in project: Telemedicine Oriented Research in the Fields of Mathematics, Informatics and Medical Sciences)
- LabVIEW software development in purpose of stroke rehabilitation
(Participation in project: Telemedicine Oriented Research in the Fields of Mathematics, Informatics and Medical Sciences)
- Involvement in the making of educational materials in the field of mechatronics
(Participation in project: Modernizing and increasing the quality of university education)
- Development of photoplethysmographic measurement solution based on sound card, implementation of the solution on Raspberry Pi, development of Java and JavaFX measurement software
(Participation in project: Telemedicine Oriented Research in the Fields of Mathematics, Informatics and Medical Sciences, B. Sc. Thesis)
- Investigation of correlation between blood pressure and paced breathing in data series recorded during simulated hypovolemia
(Participation in project: Telemedicine Oriented Research in the Fields of Mathematics, Informatics and Medical Sciences)

Teaching experience

Laboratory Demonstrator

2013-2015

University of Szeged

Measurement and data acquisition - laboratory practice

Technical skills

Programming languages

Expert: Java, LabVIEW (Certificated LabVIEW Associate Developer, 2015)

Advanced: C, C++, Python, Matlab, SQL, Arduino, VHDL

Beginner: HTML, Android, iOS

Applications

Microsoft Office, Eagle PCB Design Software, AutoCAD, Google SketchUp, Inkscape, Gimp

Operating systems

Windows, Linux, OS X