

Tobias Meyer

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WORK EXPERIENCE

Research Engineer at Georgia Institute of Technology, CATEA, Atlanta, GA, November 2008 – present

- Managing research laboratory in the Center for Assistive Technology and Environmental Access
- Wheel chair design and testing, seating cushion testing, ISO standard verification

Research Assistant at Vanderbilt University, Biomedical Engineering, Nashville, TN, May 2004 – October 2008

- Developed novel electronic circuitry to detect, control, and process physiological signals
- Planned, performed, and analyzed physiological experiments
- Maintained and improved laboratory equipment
- Advised interdisciplinary colleagues in electrical engineering matters

Programmer at Robert Bosch GmbH, Reutlingen, Germany, October 2002 – February 2003

- Developed software user interface to analyze sensor data in LabWindows/CVI environment
- Tested and categorized sensors for automotive electronics with team of graduate students
- Helped develop methods for testing novel airbag sensors

Electronic Technician for Telecommunication Systems at G.Fleischhauer GmbH, Dessau, Germany, August 1997 – August 2000

- Installed, programmed, and serviced computer network, fire alarm, security, communication, and video systems
- Served as site manager for multiple construction sites
- You need another statement here

Radio Operator at German Federal Armed Forces, Dessau, Germany, October 1996 – July 1997

- Team leader of radio operating platoon in engineering battalion
- Established, maintained, and organized radio communications
- Assisted in coordinating strategic operations of single platoons

RESEARCH PROJECTS

- Establishing Evidence-based Guidelines for Interface Pressure Mapping
- Developed multimodal fluorescence imaging system for high resolution recordings from single cardiac myocytes to measure Calcium sensitivity of myofilaments [1]
- Evaluated and established with interdisciplinary team challenge-based biomedical instrumentation laboratory course and provided course instructions for VaNTH ERC* [2]
- Developed and designed advanced Electrocardiogram device (EKG) for VaNTH ERC* [2]
- Developed and designed high speed circuit design for low noise fluorescence signal detection [3]
- Setup electrophysiological signal recording station with simultaneous fluorescence detection
- Designed electronic circuitry to investigate power transmission and force distribution in wheelchair propulsion

INDUSTRIAL PROJECTS

- **Volkswagen** (Germany)
 - Installed communication, computer, and fire alarm systems
- **MDR radio station** (Germany)
 - Installed, programmed, and serviced fiber optic network, fire alarm, security, and video systems
 - Worked weekends and day/night shifts so that project was finished successful ahead of schedule, resulting in increased profits for company and considerable follow-up projects
- **World Trade Fair** (2000, Hanover, Germany)
 - Installed, programmed, and serviced fire alarm, security, communication, and video systems
 - Served as site manager for novel aspiration smoke detector system
 - Developed cost and time saving way to install smoke detector system, leading to installation ahead of schedule, savings in installation costs and follow up projects

EDUCATION

Master of Engineering, Biomedical Engineering at Vanderbilt University, Nashville, TN, May 2008

GPA: 3.25/4.0

Master of Engineering (Dipl.Ing. ET), Electrical Engineering, University of Applied Science, Magdeburg, Germany, June 2005, GPA equivalent 3.25/4.0

HONORS AND ACTIVITIES

- Best Thesis in Electrical Engineering, 2005
- Biomedical Engineering Society (BMES)
- IEEE
- Active member of Rotaract

SELECTED COURSES

- Optical Diagnosis
- Laser – Tissue Interaction
- Principles of BioMEMS
- BioNanoMechanics
- Quantitative and Functional Imaging
- Finance & Accounting for Engineers
- High Frequency Engineering/EMC
- Communications Engineering
- Optical Transmission Technologies

SKILLS

- Native German, Russian, Spanish
- LabView, MATLAB, C++, HTML
- Altium Designer, CorelDraw, AutoCAD, Origin
- Microsoft Office Suite
- Profound knowledge in circuit development and design
- Profound hands on experience as machining and electro mechanics technician
- Profound laboratory experience

ABSTRACTS

[1] **Tobias Meyer**, Franz Baudenbacher, Andreas Werdich

BMES Annual Fall Meeting 2007

“Sarcomere Acceleration in PLN -/- Myocytes Show an Altered Calcium Sensitivity of the Myofilaments”

[2] **Alene H. Harris**, Franz Baudenbacher, **Tobias Meyer**

BMES Annual Fall Meeting 2006

“A Comparison of Two Senior Bio-Instrumentation Lab Experiences”

[3] **Raghav Venkatamaran**, Franz Baudenbacher, **Tobias Meyer**

BMES Annual Fall Meeting 2007

“On-chip Detection of Fluorescence in a Nanophysiometer to Investigate Single Cell Cardiac Physiology”