

# WoolimHong

**Date of Birth**  
10.31.1988

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## Education

- 2015 - Now **Texas A&M University, College Station, TX, USA**  
M.S.Candidate. Electrical & Computer Engineering  
Fields of Specialty: Controls & Systems, Robotics  
Advisor: Dr. Shankar Bhattacharyya / Co-advisor: Dr. Pilwon Hur  
Overall GPA : 3.88 / 4.0
- 2008 - 2014 **Handong Global University, Pohang, Rep. of Korea**  
B.S. Electrical Engineering  
Fields of Specialty: Signal Processing  
Advisor: Dr. Joonyong Lee  
Overall GPA : 3.70 / 4.0 ( 3.85 / 4.5 )  
Upper GPA : 3.76 / 4.0 ( 3.97 / 4.5 )

## Research Interests

**Controls & Systems      Robotics (Rehabilitation Robots & Lower Limb Prosthesis)**

## Publications

- [4] Woolim Hong, and Dr. Pilwon Hur. "Transfemoral Prosthesis Control for Slope Walking with Principal Component Analysis", 41th Annual Meeting of the American Society of Biomechanics (ASB 2017)
- [3] Victor Paredes, Woolim Hong, Shawanee Patrick, and Dr. Pilwon Hur. "Upslope Walking with Transfemoral Prosthesis using Optimization based Spline Generation", IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2016)
- [2] Han U. Yoon, Lanna Lytle, Yi-Tsen Pan, Namita Anil Kumar, Woolim Hong, Daniel McGowan, and Pilwon Hur. "Identifying a Perceptual Mapping from Bidirectional Skin Stretch Patterns to Motor Space Perceptions: A Preliminary Study", 40th Annual Meeting of the American Society of Biomechanics (ASB 2016)
- [1] MoonA Lee, JoonYong Lee, HongEun Park, WooLim Hong, HoSeop Kim. "Statistical Modeling of UWB Indirect Reflection in Indoor Environment", 24th Joint Conference on Communications and Information (JCCI 2014), 2014.A1-4

## Honors & Awards

11. 2017      GenDepot Award  
09. 2016      Electrical & Computer Graduate Student Travel Grant  
2015 - 2016      Graduate Program Enhancement Scholarship  
2015 - 2016      Non-Res Competitive Scholarship  
Fall.2013      Honor Student Scholarship  
Fall.2012      Leadership Scholarship

## OS Preference

Windows ★★★★★

Linux ★★★★★

ROS ★★★★★

## Languages

Korean ★★★★★

English ★★★★★

## Experience

### [ Research ]

2015 - Now **M.S. Graduate Researcher** [Texas A&M University](#)

@ Human Rehabilitation Group (Director: Dr. Pilwon Hur)

Transfemoral prosthesis control

Equine assisted activities and therapeutics

2012 - 2014 **Undergraduate Researcher** [Handong Global University](#)

@ UWB Laboratory (Director: Dr. Joonyong Lee)

Human tracking using UWB radar sensor network

Detecting breathing object & pattern by using UWB radars

### [ Teaching ]

Spring.2014 **Teaching Assistant** [Handong Global University](#)

ECE30081: Signals and Systems

Fall.2013 **Teaching Assistant** [Handong Global University](#)

ECE30085: Probability and Random Variable Processes

## Skills

C/C++/C#, Matlab, LaTeX, Mathematica, Xilinx/ISE, PulsON220, LTspice, FreePCB

Arduino, BeagleBone Black, UP board

Linux, ROS (Robot Operating System)

## Relevant Courses

### Texas A&M University

( MATH 601 ) Methods of Applied Mathematics

( ECEN 420 ) Linear Control Systems

( MEEN 612 ) Mechanics of Robotic Manipulators

( ECEN 605 ) Linear Control Systems

( ECEN 628 ) Linear Control Theory

( MEEN 655 ) Design of Nonlinear Control Systems

( ECEN 658 ) Low-Noise Electronic Design

( ECEN 644 ) Discrete Time Systems