Curriculum Vitae

Byambaa Dorj

PERSONAL INFORMATION

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EDUCATION

Kunsan National University	Gunsan-si, Republic of Korea
Ph.D. in Mechanical Engineering Science and Technology	2018
Mongolian University of Science and Technology	Ulaanbaatar, Mongolia
M.S. in Electronics Engineering	2005
B.S. in Electronics Engineering	2004

EMPLOYMENT

Senior Lecturer, Electronics Engineering, Mongolian University of Science and Technology, 2018-2020

PhD student, Kunsan National University, South Korea, 2013-2017 Dec

Lecturer, Electronics Engineering, Mongolian University of Science and Technology, 2005-2013

Instructor, Electronics Engineering, Mongolian University of Science and Technology, 2004-2005

GRANTS AND AWARDS

Winner, Most outstanding young lecturer Award 2011

Government Agency Award 2011

Best Paper Award - "Intelligent Artificial Agent Design using Reinforcement Learning and Speech Recognition for Autonomous Vehicles" 2016

ABU Robocon Mongolia 2011 national robot contest Winner 2011

1 st runner up, ABU Robocon 2019 Mongolia Contest, Team Instructor, 2019

RESEARCH INTEREST

- Image process and AI
- Self-Driving car
- Digital Signal Process
- Robot Path planning

RESEARCH EXPERIENCE

- Reactive path planning for mobile robot
- Image process for self-driving robot
- Real time drone experiment using Vicon camera

TEACHING EXPERIENCE

- Digital electronics, Fundamental of Image process, Microprocessor system, Sensor systems,

PROJECTS

- Railway signal alarm protection system 2007- 2008
- Stage microphone control system - 2009 Aug-Oct
- Pressure and temperature measurement system of the heating substation - 2010
- Microprocessor and Digital electronics training kit   - 2006
- Leveling System of Wind turbine using Hydraulic cylinder 2013-2014
- Real time drone experiment in the Matlab program using Vicon system(motion capture system) 2014-2017
- Self driving robot real time experiment using image process technique
- RF remote controller for pneumatic cylinder 2015-2016

SUMMARY

- Ability to work independently as well as in a team with others.
- Experience in microcontroller system using Stm32 microcontroller and Atmega processor
- Experience in modeling and computer simulation: Matlab, OpenCV, Gazebo
- Computer skills: Linux/Windows, C/C++, 3D Max, Altium designer, Keil uvision, AVRstudio, Proteus design, Microsoft office, Photoshop etc.

PUBLICATION

Scientific publication:

1. Dorj, B.; Hossain, S.; Lee, D.-J. Highly Curved Lane Detection Algorithms Based on Kalman Filter. Appl. Sci. 2020, 10, 2372.

2. Byambaa Dorj and Deok Jin Lee"A Precise Lane Detection Algorithm Based on Top View Image Transformation and Least-Square Approaches" Journal of Sensors, 1687-7268, 2015 SCIE.

3. Doopalam Tuvshinjargal, Byambaa Dorj, Deok Jin Lee "Hybrid Path Planning Method for Autonomous Robots Using Kinect Based Sensor Fusion and Virtual Plane Approach in Dynamic Environments" Journal of Sensors 1687-725X   2015, Hindawi Publishing Corporation, SCIE

4. Byambaa Dorj and DeokChan Kang, Deok Jin Lee, "Vision Based Target Tracking Control of a Multirotor Drone Using Raspberry Pi embedded Module" Advanced Science Letters, 2016. (SCOPUS)

5. "Doopalam Tuvshinjargal, Byambaa Dorj, Kil To Chong, Dong Pyo Hong, and Deok Jin Lee", "Multi-Sensor Fusion Based Effective Obstacle Avoidance and Path Following Technology" ISBN-1936-6612 Vol-20, American Scientific Publishers SCOPUS.

6. Doopalam Tuvshinjargal, Byambaa Dorj, and Deok Jin Lee "Hybrid Motion Planning Method for Autonomous Robots Using Kinect Based Sensor Fusion and Virtual Plane Approach in Dynamic Environments"   Journal of Sensors 1687-7268 2015. 5, Hindawi Publishing Corporation, SCIE.