

CURRICULUM VITAE

1. Personal Data		
Name: Igi Ardiyanto	Date and Place of Birth: January 9, 1987 Jakarta, Indonesia	
Nationality: Indonesia	Gender: Male	
Department/Faculty/ University: Department of Electrical Engineering and Information Technology, Universitas Gadjah Mada		
Current Position/ Academic Title: PiC of UGM AI Center / Dr.Eng.	Address: Jl. Grafika No.2 Bulaksumur Yogyakarta Indonesia 55281	
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2. Educational Qualifications	
2-1. Academic Qualification	
Degree: Doctor of Engineering Year: 2015 Field: Computer Science and Engineering Name of Institution: Toyohashi University of Technology	
Degree: Master of Engineering Year: 2012 Field: Computer Science and Engineering Name of Institution: Toyohashi University of Technology	
Degree: Bachelor of Engineering Year: 2009 Field: Electrical Engineering Name of Institution: Universitas Gadjah Mada	
2-2. Research Experience and Portfolio	
<ul style="list-style-type: none">▪ Development of E-Nose (Electronic Nose) System for <i>Fakultas Teknologi Pertanian</i>, UGM, 2009.▪ Researcher of Active Intelligent and System Laboratory (AISL) Toyohashi Gikadai, using commercial service robot ENON, collaboration with FUJITSU Ltd., supported by NEDO (New Energy and Industrial Technology Development Organization, Japan) 2011.▪ Researcher of Service Robot for Medical, supported by Fukushima Medical University (FMU), 2013.▪ Researcher of Simulator Development for Nursing Home Facilities, Japan, 2014.▪ Principal researcher of Simulator Development for Human Action Recognition, Japan, 2014-2015.▪ Development of Computer-Aided Diagnostic for Diabetic Retinopathy patients, RS Sardjito and Medical Faculty, UGM, 2016.▪ Development of Computer-Aided Diagnostic for Oculography System for Vertigo Detection, 2016.	

Field of specialization:

- Mobile robots
- Machine Learning and Deep Learning
- Computer vision
- Intelligent transportation systems
- Embedded system
- Parallel computing

2-3. Research Achievements

List of Major Publications:

1. **Igi Ardiyanto**, "Spatio-temporal Human Motion Estimation Using Dynamic Conditional Random Field", *International Journal of Innovative Computing, Information and Control (IJICIC)*, 2018. (To Appear)
2. **Igi Ardiyanto**, T.B. Adji, "Deep Residual Coalesced Convolutional Network for Efficient Semantic Road Segmentation", *IPSI Transactions on Computer Vision and Applications (IPSI-CVA)*, vol. 9:6, Springer, 2017.
3. **Igi Ardiyanto**, H. A. Nugroho, R. L. B. Buana, "Deep Learning-based Diabetic Retinopathy Assessment on Embedded System", *The 39th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC 2017)*, Jeju Island, South Korea, 2017.
4. **Igi Ardiyanto** and J. Miura, "Generalized Coverage Solver Using Hybrid Evolutionary Optimization", *International Journal of Innovative Computing, Information and Control (IJICIC)*, vol. 13, no. 3, pp. 921-940, 2017.
5. H.H. Triharminto, O. Wahyunggoro, T.B. Adji, A.I. Cahyadi, **Igi Ardiyanto**, "A Novel of Repulsive Function on Artificial Potential Field for Robot Path Planning", *International Journal of Electrical and Computer Engineering (IJECE)*, vol. 6(6), 2016.
6. M. Shimizu, K. Koide, **Igi Ardiyanto**, J. Miura, S. Oishi, "LIDAR-based Body Orientation Estimation by Integrating Shape and Motion Information", *Proc. 2016 IEEE Int. Conf. on Robotics and Biomimetics (ROBIO 2016)*, pp. 1948-1953, December 2016.
7. R. A. Aras, T. Lestari, H. A. Nugroho, **Igi Ardiyanto**, "Segmentation of retinal blood vessels for detection of diabetic retinopathy: A review", *Communications in Science and Technology*, vol. 1(1), pp. 27-32, 2016.
8. **Igi Ardiyanto**, "Geometric Model for Human Body Orientation Classification", *Communication and Information Technology Journal*, vol. 9(1), pp. 29-33, 2015.
9. **Igi Ardiyanto** and J. Miura, "Human Motion Prediction Considering Environmental Context", *Proc. 2015 IAPR Int. Conf. on Machine Vision Applications*, pp. 390-393, Tokyo, Japan, May 2015.
10. **Igi Ardiyanto** and J. Miura, "Partial Least Squares-based Human Upper Body Orientation Estimation with Combined Detection and Tracking", *Image and Vision Computing*, Vol. 32, No. 11, pp. 904-915, 2014.
11. **Igi Ardiyanto**, J. Satake, and J. Miura, "Autonomous Monitoring Framework with Fallen Person Pose Estimation Detection", *Proc. 6th Int. Conf. on Information Technology and Electrical Engineering*, Yogyakarta, Indonesia, Oct. 2014. (Best Paper Award)
12. **Igi Ardiyanto** and J. Miura, "Cameraman Robot: Dynamic Trajectory Tracking with Final Time Constraint using State-time Space Stochastic Approach", *Proc. 2014 IEEE/RSJ Int. Conf. on Intelligent Robots and Systems*, pp. 3108-3115, Chicago, USA, Sep. 2014.
13. **Igi Ardiyanto** and J. Miura, "Visibility-based Viewpoint Planning for Guard Robot using Skeletonization and Geodesic Motion Model", *Proc. 2013 IEEE Int. Conf. on Robotics and Automation*, pp. 652-658, Karlsruhe, Germany, May 2013. (Best Service Robotics Paper Award Finalist)
14. **Igi Ardiyanto** and J. Miura. "Real-time Navigation using Randomized Kinodynamic Planning with Arrival Time Field", *Robotics and Autonomous Systems*, Vol. 60, No. 12, pp. 1579-1591, 2012.
15. **Igi Ardiyanto** and J. Miura, "3D Time-space Path Planning Algorithm in Dynamic Environment Utilizing Arrival Time Field and Heuristically Randomized Tree", *Proc. 2012 IEEE Int. Conf. on Robotics and Automation*, pp. 187-192, St. Paul, MN, USA, May 2012.
16. **Igi Ardiyanto** and J. Miura, "Heuristically Arrival Time Field-Biased (HeAT) Random Tree: An Online Path Planning Algorithm for Mobile Robot Considering Kinodynamic

Constraints", *Proc. 2011 IEEE Int. Conf. on Robotics and Biomimetics*, pp. 360-365, Phuket, Thailand, Dec. 2011.

Other relevant information:

Programming Languages:

- C/C++
- Python
- Lua
- .Net
- Java
- Scripting

Awards:

- Panasonic Award for RT-Middleware Contest, Dec. 2012.
- System Integration Conference Excellence Award, 2013.
- ICRA-2013 Best Service Robotics Paper Award Finalist, May 2013.
- ICITEE-2014 Best Paper Award, Oct. 2014.

Academic services:

- Academic Society Membership
 - IEEE, 2011-Present
- Journal Reviewer:
 - IEEE Transactions on Cybernetics
 - Journal of Intelligent and Robotic Systems
 - Robotics and Autonomous Systems
 - Machine Vision and Applications
- Reviewer of international conferences:
 - IEEE Int. Conf. on Robotics and Automation (ICRA), 2015.
 - IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS), 2013, 2015.
 - IEEE/ASME Int. Conf. on Advanced Intelligent Mechatronics (AIM), 2015.
 - Int. Forum on Strategic Technology, 2015
 - Int. Conf. on Information Technology and Electrical Engineering, 2013, 2014, 2015.