Gyeung Ho Choi (Curriculum Vitae)

PERSONAL

Professor
College of Transdisciplinary Studies
Energy Science and Engineering,
Daegu Gyeongbuk Institute of Science & Technology
333, Techno Jungang Daero, Hyeonpung-Myeon,
Dalseong-Gun, Daegu, Korea, 42988
DOB: September 19, 1960
E-mail : ghchoi@dgist.ac.kr

EDUCATION

- **Doctor of Philosophy** 05**/1992**
  Department of Mechanical Engineering, University of Alabama, Tuscaloosa, AL, USA
  Dissertation: An Investigation of Coal-Water Slurry as a Compression Ignition Engine Fuel (Advisor: Dr. Stuart R. Bell)
- **Master of Science** **12/1988**
  Department of Mechanical Engineering, University of Alabama, Tuscaloosa, AL, USA
  Thesis: Coal-fueled diesel engines: numerical investigations (Advisor: Dr. Stuart R. Bell)
- **Bachelor of Engineering** 02**/1986**
  Department of Mechanical Engineering, Sung Kyun Kwan University, Seoul, Korea

APPOINTMENT

- **Professor** **04/12-Present**
  Daegu Gyeongbuk Institute of Science & Technology (DGIST), College of Transdisciplinary, Daegu, Korea
- **Distinguished Professor** **06/10-03/12**
  Daegu Gyeongbuk Institute of Science & Technology (DGIST), Energy Systems Engineering Department, Daegu, Korea
- **Advising Professor** **11/09-03/12**
  King Mongkut's University of Technology North Bangkok, Bangkok, Thailand,
- **Chairman** **10/09-05/10**
  Board of Trustees, EROOM G&G Co., LtD (KOSDAQ Company)
- **CEO** **12/00-09/09**
  EROOM G&G Co., LtD (KOSDAQ Company)
- **Professor** **03/93-02/08**
  Mechanical & Automotive Engineering Department, Keimyung University, Daegu Korea

- **Section Chief** **03/92-02/93**
  Department of Engine Test, Hyundai Motor Company, Korea
- **Research Fellow** **09/90-08/91**
  Mining & Mineral Resources Research Institute, University of Alabama, Tuscaloosa, USA

DEPARTMENT AND UNIVERSITY SERVICE

- **Dean** **04/15-03/16**
  College of Transdisciplinary, Daegu Gyeongbuk Institute of Science & Technology (DGIST), Daegu, Korea
- **Director** **04/12-02/15**
  College of Transdisciplinary, Daegu Gyeongbuk Institute of Science & Technology (DGIST), Daegu, Korea
- **Head** **06/10-04/12**
  Energy System Engineering Department, Daegu Gyeongbuk Institute of Science & Technology (DGIST), Daegu, Korea
- **Director** **09/02-02/05**
  Center for Automotive Parts Technology, Keimyung University, Korea

HONOR & AWARD

- The Outstanding Lecturer of the Year Award, 2016, King Mongkut's University of Technology North Bangkok, Bangkok, Thailand,
- Award for National Scientific Excellence, 2014, Ministry of Science, ICT and Future Planning, Korea
- The Outstanding International Academic Alliance Award, 2009, King Mongkut's University of Technology North Bangkok, Bangkok, Thailand,
- Excellent Research Professor, 2006, Keimyung University, Korea
- Environmental Technology Award, Prime Minister, 2003, Korea
- Award for Transportation Environment, 2002, Ministry of Construction and Transportation, Korea
- Citation Award for Environment, 2001, Mayor of Daegu, Korea
- Citation Award for Environment, 2001, Mayor of Daegu, Korea
- The Outstanding Research Professor, 1999-2000, Keimyung University, Korea
- Graduate Council Research Fellowship, 1991, University of Alabama, USA
- The Outstanding Graduate Research Assistant, 1989, University of Alabama, USA

EXTERNAL AND ACADEMIC ACTIVITIES

- Editor-in-Chief, Journal of Engineering Education Research, Korea, 01/18-Present
- Associate Editor, Journal of Automotive Engineers, Malaysia, 01/17-Present
- Executive Vice President, Korean Auto-Vehicle Safety Association, 01/17-Present

- Chairman, Judging Committee in International Student Car Competition, Korea Transportation Safety Authority, Korea 01/15-Present
- Director, General Affair, Korean Hydrogen and New Energy Society, Korea, 01/13-12/14
- Director, Business Affair, Korean Auto-Vehicle Safety Association, Korea, 01/11-12/16

KEYNOTE/PLENARY SPEECHES AND INVITED TALKS

14. "Next Generation Automotive: Challenges for Thai Industry", KMUTNB's 59 Anniversary Ceremony, KMUTNB, Bangkok, Thailand, Feb. 2018.
13. "Long Term Strategy for Gachon Institute for Creative Convergence", Gachon University, Seoul, Korea, Jan., 2018.
12. "An Innovative Science-Engineering Curriculum for 21st Century", 2016 Outstanding Lecturer of the Year Award Ceremony, KMUTNB, Thailand, July, 2016.
11. "Design for Innovative Educational Curriculum of Engineering", Hanyang University, Seoul, Korea, Jan., 2016.
10. "Convergence Education for Innovative Industry-University Cooperation", The 5th KIU Industry-University Workshop, Kyungil University, Daegu, Korea, Jan., 2016.
9 "Sustainable Energy Technologies & Strategies in Thailand", Ministry of Energy, Bangkok, Thailand, Oct., 2015.
8 "Introduction of Trandisciplinary College in DGIST", X-Lab in University of Goettingen, Goettingen, Gemany, June, 2015
7. "Introduction of an innovative engineering education for 21st century", The 2nd International Conference of Multi Disciplines of Engineering on Advanced Technology and Environmentalism Design, Tainan, Taiwan, Oct., 2014.
6. "Climate Change & Green Growth Policy", Halla University, Wonju, Korea, July, 2012,
5. "The New Strategy for an Enhancing Engineering Education Program in Korea", The 10th International and National Conference on Engineering Education, Bangkok, Thailand, May, 2012.
4. "Strategical Green Technologies in Heavy Duty Vehicles", The 1st International Conference of Multi Disciplines of Engineering on Advanced Technology and Environmentalism Design, Pattaya, Thailand, March, 2012.
3. "R&D in Sustainable Energy Systems" University of Louisville, Louisville, USA, Jan., 2012.
2. "Demonstration of Eco-Friendly HD Tractor & Buses", 2011 International Conference of Green Energy Economy, Washington DC, USA, July, 2011.
1. "Sustainable Green Technology", Korean Standards Association, Seoul, Korea, July, 2011.

JOURNAL PUBLICATION

J55. Minho Oh, Bokyung Cha, Inhwan Bae, Gyeungho Choi, and Yongseob Lim, 「An Urban Autodriving Algorithm Based on a Sensor-Weighted Integration Field with Deep Learning」, Journal of Electronics, Jan. 2020.

J54. Inhwan Bae, Yongseob Lim, Gyeungho Choi et al., 「Improved Environment Recognition Algorithm for Autonomous Vehicle Control」, Journal of Auto-Vehicle Safety Association, Vol. 11, No. 2, June 2019.

J53. Gyeung Ho Choi, Jae-Cheon Lee, Sang Ho Ahn, Kwang Sang Cho, and Youkeun Oh, 「Study on Undergraduate-Driven Autonomous Vehicle Competition」, Journal of Auto-Vehicle Safety Association, Vol. 9, No. 4, Dec. 2017.

J52. Gyeung Ho Choi, Chanwit Tangsiriworakul, Chedthawut Poompipatpong, 「Performance and Exhaust Emission Studies of a Large LNG-Disel Degine Operating with Different Gas Injector's Characteristics」, International Journal of Applied Science and Technology, Vol. 7, No. 2, pp. 59-66, 2014.

J51. Sang C. Lee, Osung Kwon, Sobi Thomas, Sam Park, Gyeung Ho Choi, 「Graphical and mathematical analysis of fuel cell/battery passive hybridization with K factors」, Journal of Applied Energy, Vol. 114, pp. 135-145, Feb. 2014.

J50. Chedthawut Poompipatpong, and Choi Gyeung Ho, 「An Experimental Study of Performance in a Large Diesel Engine Fuelled with Diesel and LNG」, Journal of Industrial Technology, Vol. 9, No. 3, pp. 95-104, 2013.

J49. A. Bates, S. W. Hwang, S. Mukherjee, S. C. Lee, O. S. Kwon, G.H. Choi, and S. Park, 「Simulation of an innovative polymer electrolyte membrane fuel cell design for self-control thermal management」, International Journal of Hydrogen Energy, Vol. 38, pp. 8422-8436, July 2013.

J48. Kraipat Cheenkachorn, Chedthawut Poompipatpong, and Choi Gyeung Ho, 「Performance and Emissions of a Heavy-Duty Engine Fuelled with Diesel and LNGl」, Journal of Energy, Vol. 53, pp. 52-57, May, 2013.

J47. A. Bates, S. Mukherjee, S.W. Hwang, S.C. Lee, O.S. Kwon, G.H. Choi, and S. Park, 「Simulation and Experimental Analysis of the Clamping Pressure Distribution in a PEM Fuel Cell Stack」, International Journal of Hydrogen Energy, Vol. 38, pp. 6481-6493, May, 2013.

J46. S.W. Hwang, G.H. Choi, A. Bates, R.M. Ench, S.C. Lee, O.S. Kwon, D.H. Lee, S. Mukherjee, and S. Park, 「A Novel Lightweight Polymer Electrolyte Fuel Cell Stack for Robot Systems」, PRiME 2012 transaction.

J45. S. W. Hwang, G. H. Choi, Sam. Park, R. Michael Ench, Alex M. Bates S. C. Lee, O. S. Kwon, and D. H. Lee, 「Design Optimization of a 500W Fuel Cell Stack Weight for Small Robot Applications」, Journal of the Korean Solar Energy Society, Vol. 32, pp 275-281, No.3, 2012.

J44. Sng Bin Han, Yong Hoon Chang, Gyeung Ho Choi, Yon Jong Chung, Chedthawut Poompipatpong, and Saiprasit Koetniyom, 「Effects of the Intake Valve Timing and the Injection Timing for a Miller Cycle Engine」, Journal of Korea Society for Energy Engineering, Vol. 19, No.

1, pp. 32-38, 2010.

J43. Gyeung Ho Choi, Jae Cheon Lee, Tae Yun Kwon, Chang Uk Ha, Jong Soon Lee, Yon Jong Chung, Yong Hoon Chang and Sung Bin Han, 「Combustion characteristics of a swirl chamber type diesel engine」, Journal of Mechanical Science and Technology, Vol. 23, pp. 1-8, 2009-12.

J42. Gyeung Ho Choi, Chedthawut Poompipatpong, Saiprasit Koetniyom, Yon Jong Chung, Yong Hoon Chang, and Sung Bin Han, 「Development and performance analysis of a Miller cycle in a modified using diesel engine」, Journal of Energy Engineering, Vol. 17, No. 4, pp. 198-203, 2008-12.

J41. Gyeung Ho Choi, Tae Kwon Kim, Ung Lae Cho, Yon Jong, Jerald Caton, Sung Bin Han, 「A Study on the Performance of an LPG(Liquefied Petroleum Gas Engine Converted from a Compression Ignition Engine」, Journal of Energy Engineering, Vol. 16, No. 1, pp. 1-6, 2007-03.

J40. Gyeung Ho Choi, Jae Cheon Lee, Yon Jong Chung, Jerald Caton, Sung Bin Han, 「Effect of Hydrogen Enriched LPG Fuelled Engine with Converted from a Diesel Engine」, Journal of Energy Engineering, Vol.15, No. 3, pp. 139-145, 2006-09.

J39. Gyeung Ho Choi, Sung Hoon Kim, Tae Yun Kwon, Ju Hee Yun, Yon Jong Chung, Chang Uk Ha, Jong Soon Lee, Sung Bin Han, 「A numerical study of the effects of swirl chamber passage hole geometry on the flow characteristics of a swirl chamber type diesel engine」, Journal of Automobile Engineering, Vol 220, No. D4, pp. 459-470, 2006-04.

J38. G. H. CHOI, K. S. Cho, Y. J. CHUNG, J. M. KIM, R. W. DIBBLE, S. B. HAN, 「ACTIVATED CARBON CANISTER PERFORMANCE FOR A SPARK IGNITION ENGINE」, International Journal of Automotive Technology, Vol. 7, No. 1, pp. 9-15, 2006-02.

J37. Gyeung Ho Choi, Yon Jong Chung, Ji Moon Kim, Robert W. Dibble, Sung Bin Han, 「Basic Performance Characteristics of HCCI (Homogeneous Charge Compression Ignition) Engine」, Journal of Energy Engineering, Vol.14, No. 4, pp. 226-231, 2005-12.

J36. T. Y. Kwon, G. H. Choi, 「Numerical Analysis of Flow Characteristics in Swirl Chamber Type Diesel Engine」, Transactions of Korean Society of Automotive Engineers, Vol. 13, No. 4, pp. 49-57, 2005-07.

J35. Gyeung Ho Choi, jin Ho Kim, Ung Lae Cho, Yon Jong Chung, and Sung Bin Han, 「Performance and Emission Characteristics of a Converted Liquefied Petroleum Gas(LPG) Engine with Mixer and Liquid Propane Injection(LPi) System」, J. of Energy Engineering, Vol.14, No. 3, pp. 9-15, 2005-09.

J34. Gyeung Ho Choi, Yon Jong Chung, Sung Bin Han, 「Comparison study between mixer and liquefied petroleum injection system fuel supply methods in a heavy-duty single cylinder engine」, Journal of Automobile Engineering, Vol 219, No. D9, pp. 1119-1123, 2005-09.

J33. Gyeung Ho Choi, Seong Keun Shin, Seok Choun Bae, Yong Jong Chung and Sung Bin

Han, 「Effects of injector leakage on liquid propane injection engine performance」, Journal of Automobile Engineering, Vol. 219, No. D4, pp. 559-564, 2005-04.

J32. Gyeung Ho Choi, Yon Jong Chung, Sung Bin Han, 「Performance and emissions characteristics of a hydrogen enriched LPG internal combustion engine at 1400 rpm」, International Journal of HYDROGEN ENERGY, Vol. 30, pp. 77-82, 2005-03.

J31. Y. Y. Kim, Jong T. Lee, Gyeung H. Choi, 「An investigation on the causes of cycle variation in direct injection hydrogen fueled engines」, International Journal of HYDROGEN ENERGY, Vol. 30, pp. 69-76, 2005-03.

J30. G. H. Choi, J. M. Kim, S. B. Han, 「Influence of Propane and Butane on Engine Performance in a Homogeneous Charge Compression Ignition(HCCI) Engine」, The Korean Society of Mechanical Engineers International Journal, Vol. 29, No. 3, pp. 417-423, 2005-03.

J29. G. H. Choi, J. H. Kim, Y. J. Chung, S. B. Han, 「Influence of Compression Ratio on Engine Performance in a LPG Engine Converted from a Diesel Engine」, The Korean Society of Mechanical Engineers International Journal, Vol. 28, No. 10, pp. 1178-1183, 2004-10.

J28. G. H. Choi, S. B. Han, 「Performance and exhaust emissions test results from a liquid propane injected engine with hydrogen enrichment」, Journal of Automobile Engineering, Vol. 218, No. D10, pp. 1135-1140, 2004-10.

J27. G. H. Choi, S. B. Han, 「Engine Performance and Emissions Characteristics in an LPG Engine Converted with Mixer and LPi System Fuel Supply Methods」, The Korean Society of Mechanical Engineers International Joiurnal, Vol. 28, No. 9, pp. 1075-1080, 2004-09.

J26. G. H. CHOI, S. B. HAN R. W. DIBBLE, 「EXPERIMENTAL STUDY ON HOMOGENEOUS CHARGE COMPRESSION IGNITION ENGINE OPERATION WITH EXHAUST GAS RECIRCULATION」, International Journal of Automotive Technology, Vol. 5, No. 3, pp. 195-200, 2004-09.

J25. Gyeung Ho Choi, Seok Choun Bae, Sung Bin Han, 「A study on the characteristics of combustion with butane and propane in a retrofitted diesel engine」, Proceedings of the I MECH E Part D Journal of Automobile Engineering, Vol. 218, No. 8, pp. 915-920, 2004-08.

J24. B. Y. Lee, G. H. Choi, 「Fatigue Life Analysis and Cooling Conditions Evaluation of a Piston for Large LPLi Bus Engines」, Journal of Korean Society of Marine Engineering, Vol. 28, No. 5, pp. 78-88, 2004-07.

J23. G. H. Choi, S. B. Han, Robert W.Dibble, 「A Study on Engine Performance Characteristics of a Homogeneous Charge Compression Ignition(HCCI) Engine According to Exhaust Gas Recirculation(EGR)」, The Korean Society of Mechanical Engineers International Journal, Vol. 28, No. 7, pp. 857-862, 2004-07.

J22. Gyeung Ho Choi and Gyu Sang Cho, 「A Study on Evaporative Emissions in a Spark Ignition Engine with a Carbon Canister」, Journal of Energy Engineering, Vol.13, No.2, pp. 161-165, 2004-06.

J21. G. H. Choi, 「An Experimental Study on the Performance Characteristics of a Hydrogen Fueled LPi Engine」, Transactions of the Korean Hydrogen and New Energy Society, Vol.15, No.2, pp. 129-136, 2004-06.

J20. S. B. Han and G. H. Choi, 「A Study on the Emissions of Homogeneous Charge Compression Ignition Engine」, The Korean Society of Mechanical Engineers Internaltional Journal, Vol.28, No.3, pp. 324-329, 2004-03.

J19. Gyeung Ho Choi, Sung Bin Han, and Yon Jong Chung, 「The Effect of Hydrogen Enrichment on Exhaust Emissions and Thermal Efficiency in a LPG fuelled Engine」, Korean society of mechanical engineers International Journal, Vol. 17, No. 8, pp. 1196-1202, 2003.

J18. G. H. Choi, U. L. Cho, 「A Study on Reduction of Exhaust Gas Temperature in Retrofitted LPG Fueled Engine Based Medium-Duty Diesel Engine」, Transactions of the Korean Society of Automotive Engineers, Vol. 11, No. 2, pp. 63-68, 2003.

J17. T. Y. Kwon, J. H. Kim, G. H. Choi, Y. J. Chung, 「Effects of Hydrogen-enriched LPG Fuelled Engine on Exhaust Emission and Thermal Efficiency(II)」, Journal of the Korea Hydrogen and New Energy Society, Vol.13, No.4, 297-303, 2002.

J16. B. Y. Lee, C. W. Park, G. H. Choi, 「Research on the Inverse Heat Conduction Problem for Thermal Analysis of a Large LPG Engine Piston」, Journal of Korean Society of Precision Engineering, Vol. 19, No. 11, 146-159, 2002.

J15. J. H. Kim and G. H. Choi, 「Influence of Compression Ratio on Engine Performance in Heavy-duty LPG Single-cylinder Engine」, Journal of Energy Engineering, Vol. 11, No. 2, 2002.

J14. U. L. Cho, G. H. Choi, S. C. Bae, 「Study on Emission Characteristics in a Hydrogen-fueled Engine」, Journal of the Korean Hydrogen Energy Society, Vol. 13, No. 1, pp. 83-89, 2002.

J13. U. L. Cho, J. H. Kim, G. H. Choi, 「Effects of hydrogen-enriched LPG fuelled engine on exhaust emission and thermal efficiency」, Journal of the Korean Hydrogen Energy Society, Vol. 12, No. 3, pp. 72-79, 2001.

J12. S. J. Lee and G. H. Choi, 「Effects of After Treatments on Emission Performance in Heavy duty diesel」, Transactions of Korea Society of Automotive Engineers, Vol. 8, No. 5, pp. 72-79, 2000.

J11. G. H Choi, 「A Study on Characteristics in a Hydrogen fueled engine(2)」, Journal of the Korean Hydrogen Energy Society, Vol. 11, No. 1, pp. 1-9, 2000.

J10. S. J. Lee, H. S. Byun, G. H. Choi, 「Effects of Oxygen Enrichment on Exhaust Gas Characteristics of the Diffusion Combustion」, Journal of Korean Society of Environmental Engineers, Vol. 20, No. 12, pp. 1727-1735, 1998.

J9. B. H. Lee, S. J. Lee, G. H. Choi, 「A Study on Regeneration Characteristics in DPF (1)」, Journal of Transactions of Korea Society of Automotive Engineers, Vol. 6, No. 5, pp. 72-79, 1998.

J8. S. J. Lee and G. H. Choi, 「A Study on Characteristics in a Hydrogen fueled engine (1)」, Journal of the Korean Hydrogen Energy Society, Vol. 8, No. 2, pp. 91-97, 1997.

J7. G. H. Choi, 「Effect of Additional Hydrogen Fuel on IDI Diesel Engines」, Journal of the Korean Hydrogen Energy Society, Vol. 8, No. 1, pp. 23-29, 1997.

J6. G. H. Choi, K. H. Choi, J. T. Lee, Y. S. Song, Y. Ryu, and J. W. Cho, 「Analysis of combustion chamber Temperature and Heat Flux in a DOHC Engine」, SAE Transactions Journal of Engines, Paper No. 970895, 1997.

J5. S. I. Kwon and G. H. Choi, 「Nozzle Diameter prediction for optimal combustion in direct injection engines」, SAE Transactions Journal of Engines, Paper No. 951802, 1995.

J4. S. R. Bell and G. H. Choi, 「Parametric studies on a Coal-Fueled Diesel Engine」, Journal of Combustion Science and Technology, Vol. 96, pp.85-102, 1994.

J3. G. H. Choi and S. R. Bell, 「Investigation of Coal-water slurry Fuel combustion in Reciprocating, internal combustion Engine」, Korean society of mechanical engineers Journal, Vol. 8, No. 4, pp.356-363, 1994.

J2. Bell, S. R. and G. H. Choi, 「Numerical evaluation of fuel atomization in a coal fueled engine」, ASME ICE, Vol. 12, pp 69-75, 1990.

J1. Bell, S. R. and G. H. Choi, 「Numerical evaluation of the carbon-water reaction in a coal-water slurry fueled engine」, ASME ICE, Vol. 7, pp 35-42, 1989.

CONFERENCE PRESENTATIONS

C21. Juho Song, Gwanjun Shin, Geonhee Sim, Gyeungho Choi, Yongseob Lim, and Wooyoung Jung,「Implementation of a Robust Integrated Fault-Recovery Algorithm to Improve the Safety of Autonomous Vehicle」, Korea Auto-Vehicle Safety Society, Korea, 2020. 11.

C20. Eunbin Seo, Hoyeong Yeo, Gwanjun Shin, Seunggi Lee, Gyeungho Choi, Yongseob Lim, and Wooyoung Jung,「Geometric Path Tracking Algorithm based on Improved Lane Detection through Real Time Post-processing with Estimated Interpolations」, Korea Auto-Vehicle Safety Society, Korea, 2020. 11.

C19. Inhwan ae, Minho Oh, Bokyung Cha, Yongseob Lim, and G. H. Choi, 「Deep Learning Based Steering Angle Correction System using Vanishing Point for Autonomous Vehicle」,SOltmC & Meije University Conference, Japan, 2019. 7.

C18. Yeongjun Cjo, Sunjae Yoon, Chajin Lee, Yongseob Lim, and G. H. Choi, 「Camera Vision-Based Transplanted Line Detection Algorithm for Intelligent Agricultural Vehicle」, Korea Auto-Vehicle Safety Society, Korea, 2019. 5.

C17. G. H. Choi et al., 「자율주행을 위한 햔상된 환경인식 및 통합제어 알고리즘」, Korea Auto-Vehicle Safety Society, Korea, 2018. 11.

C16. G. H. Choi, M. G. Cho, Y. S. Lim, 「 Case Studies of a Project-Based Learning Course in Transdisciplinary Engineering Program」, 5th Annual International Conference on Engineering, Athens, Greece, 6. 2018.

C15. C. J. Lee, J. W. Lee, J. H. Seo, K. S. Shin, Y. S. Lim, and G. H. Choi, 「A Study on Sensors and Algorithms for Autonomous Vehicle」, 3rd International Conference on Engineering Science and Innovative Technology, Phang Nga, Thailand, 4. 2018.

C14. Chajin Lee, Jinwoo Lee, Jihwan Seo, Kyeongsik Shin, Yongseob Lim, and G. H. Choi, 「A Study on Sensors and Algorithm for Autonomous Vehicle」, Korea Auto-Vehicle Safety Society, Korea, 2017. 11.

C13. G. H. Choi, M. G. Cho, Y. S. Lim,「Case Studies of Undergraduate Group Research Program for Problem Solving Skills」, Korean Society for Engineering Education, Korea, 2017. 9. **Best Presentation Award**

C12. C. J Lee, S. J. Bae, S. J. Yoon, Y. S. Lim, G. H. Choi, 「A Study on Template Matching Methods for Traffic Sign Recognition」, Korean Society for Engineering Education, Korea, 2017. 9.

C11. G. H. Choi, J. C. Lee, S. H. Ahn, Y. Oh, and K. S. Cho, 「Study on Undergraduate-Oriented Autonomous Vehicle Competition」, Korea Auto-Vehicle Safety Society, Korea, 2017. 5.

C10. Athakorn Kengpol, G. H. Choi, Chedthawut Poompipatpong, 「A decision support methodology for using alternative fuel in diesel engine」, 2nd International conference on Multi Disciplines of Engineering on Advanced Technology and Environmentalism Design, Tainan, BA-00167, Taiwan, 2014. 10

C9. G. H. Choi, Derek Choowichien, Chedthawut Poompipatpong, Chanwit Tangsiriworakul,「Effort of using alternative gas injector in a dual-fuel diesel engine: an empirical study on the electronic characteristics」, 2nd International conference on Multi Disciplines of Engineering on Advanced Technology and Environmentalism Design, Tainan, BA-00160, Taiwan,

2014. 10

C8. G. H. Choi, Chedthawut Poompipatpong, Peeteenut triwong, 「Study of the new methodology for engine torque comparison」, 2nd International conference on Multi Disciplines of Engineering on Advanced Technology and Environmentalism Design, Tainan, BA-00161, Taiwan, 2014. 10

C7. G. H. Choi and Sam Prk, 「Developing a New Course on Energy Storage Systems: Introducing Energy Challenges for Next-Generation Engineers」, IEEE International Conference on Teaching, Assessment and Learning for Engineering, Bally, Indonesia, pp 354-357, 2013. 8.

C6. S.W. Hwang, G.H. Choi, and S. Park, 「Study on Performance Degradation with Stack Temperature of 300W Polymer Electrolyte Membrane Fuel Cell for Small Robot Applications」, Korean Hydrogen and New Energy Society, Korea, 2012. 11.

C5. S.W. Hwang, G.H. Choi, S.C. Lee, O.S. Kwon, D.H. Lee, A. Bates, R.M. Ench, and S. Park, 「Design and Development of a Fuel Cell Stack for Hybrid Power Systems」, The International Conference on Ubiquitous Robots and Ambient Intelligence, Daejeon, Korea, 2012. 11.

C4. O.S. Kwon, S.C. Lee, D.H. Lee, B. Han, S.W. Hwang, G.H. Choi, S. Mukherjee, A. Bates, and S. Park, 「 Development of a High Performance MEA using Current-sensing Atomic Force Microscopy (CS-AFM) and (Nano-scale Impedance Spectroscopy (NIS) 」, PRiME, Hawaii, USA, 2012. 10

C3. S.W. Hwang, G.H. Choi, A. Bates, R.M. Ench, S.C. Lee, O.S. Kwon, D.H. Lee, S. Mukherjee, and S. Park, 「A Novel Lightweight Polymer Electrolyte Fuel Cell Stack for Robot Systems」, PRiME, Hawaii, USA, 2012. 10.

C2. S. W. Hwang, G. H. Choi, Sam Park, R. M. Ench, A. M. Bates, S. C. Lee, O. S. Kwon, and D. H. Lee「Optimization of a Fuel Cell Stack for Small Robot Systems」, 2012 Korean Solar Energy Society Spring Conference, Daegu, Korea, 2012. 3. **The Excellent Paper**.

C1. G. H. Choi, S. W. Hwang, C. Poompipatpong, S. J. Lee, and E. T. Kim「A Study on Cylinder-to-Cylinder Variations in Retrofitted LNG-Diesel Dual Fueled Engine」, 1st International conference on MDEATED, Pattaya, Korea, pp 156-161, 2012. 3

PATENTS

P12. “APPARATUS AND METHOD FOR MANAGING STUDY BASED ON MEMO OF E-BOOK”, 10-1674288, 2016. 11. 2, Korea

P11. “APPARATUS AND METHOD FOR MANAGING QUESTION OF E-BOOK”, 10-1634900, 2016. 6. 23, Korea

P10. ”METHOD AND APPARATUS FOR CONTENT MODULARIZE”, 10-1551573, 2015. 9. 2. Korea

P9. “OIL COOLING SYSTEM”, 10-0566090, 2006. 2. 24., Korea, Patent expiration

P8. “SPARK IGNITION SYSTEM IN DIESEL ENGINE”, 10-0529959, 2005. 11. 14., Korea, Patent expiration

P7. “FUEL RECOVERY APPARATUS AND METHOD OF GAS FUEL VEHICLES”, 100482934, 2005. 4. 4. Korea, Patent expiration

P6. “A COUPLING DEVICE OF A DISTRIBUTOR FOR LPG VEHICLE”, 10-0354444, 2002. 9. Korea.

P5. “IGNITER SUPPLIER FOR THE LIQUEFIED PETROLEUM GAS FUELIN 5-TON VEHICLES WITH A DIESEL ENGINE”, 10-0320284, 2001. 12. Korea

P4. “ELECTRIC SUPPLIER FOR THE LIQUEFIED PETROLEUM GAS FUELIN 1-TON VEHICLES WITH A DIESEL ENGINE”, 10-0315585, 2001. 11. Korea

P3. “ELECTRIC SUPPLIER FOR THE LIQUEFIED PETROLEUM GAS FUELIN 5-TON VEHICLES WITH A DIESEL ENGINE”, 10-0315584, 2001. 11. Korea

P2. “THE METHOD FOR REMOVING A TOXIC EXHAUST GAS, USING ECU COMMECTED TO THE EXHAUST GAS FILTERING SYSTEM AND EGR SYSTE”, 10-0279933, 2000. 11. Korea

P1. “COMBUSTION INDUCTION APPARATUS FOR COMBUSTION ENGINE”, 0299064, 2001. 6. Korea