

## CIRRICULUM VITAE

# DR. MAJID DELSHAD

AZAD UNIVERSITY OF ISFAHAN  
FACULTY OF ENGINEERING  
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### CAREER HIGHLIGHTS:

- Associate professor and head of the faculty of engineering in Azad University of Isfahan
- Director of Robotics and Mechatronics Center, Azad University of Isfahan, Isfahan, Iran
- Head of Faculty of Engineering | Islamic Azad University of Isfahan | Isfahan, Iran
- CEO and Engineering Manager of Shaina Electric Spadana Company | Isfahan, Iran
- Referee in Advanced Technologies Center | Islamic Azad University of Isfahan | Isfahan, Iran
- Referee in the Following Journals:
  - IEEE Transaction of Power Electronics
  - IEEE Transaction of Industrial Electronics
  - International Journal of Electronics
- Member of Editorial Board of Majlesi Journal of Electrical Engineering, Indexed in Scopus, 2018

### CURRENT POSITIONS:

Associate Professor and Head of the Faculty of Engineering in Azad University of Isfahan

- Director of Robotics Team, Azad University of Isfahan, Isfahan, Iran
- Referee in Advanced Technologies Center | Islamic Azad University, Isfahan Branch | Isfahan, Iran
- Referee in the Following Journals:
  - IEEE Transaction of Power Electronics
  - IEEE Transaction of Industrial Electronics
  - International Journal of Electronics

## UNIVERSITY EDUCATION

- 2005-2010 PhD in Electrical Engineering  
Isfahan University of Technology, Isfahan, Iran

Degree type: PhD through course and research

*Dissertation title:* Soft Switching Current Fed Isolated Converters for High Voltage Applications.

- 2002-2005 MSc in Electrical Engineering  
Isfahan University of Technology, Isfahan, Iran

Degree type: MSc through course and research

*Dissertation Title:* A New Current Fed Dc-Dc Converter for High Voltage Applications

- 1997-2001 BSc in Electronics  
Kashan university, Isfahan, Iran

## PROFFSSIONAL HONOURS, AWARDS

- Best Paper Award in 12<sup>th</sup> International Conferences on Climbing and Walking Robots CLAWAR 2009
- Best Researcher Award in Azad University of Isfahan in engineering field, 2011.
- Best Researcher Award in Isfahan Province, 2012.
- Gold Medal Achievement in the Azad University Second Olympiad of Inventors (Delshad, Majid/ Shahri, Ehsan, 2011)
- Silver Medal Achievement in the 6<sup>th</sup> International Exhibition (SuZhou) of Inventions (Team Advisor), 2008
- Director of Behrobot Team and Took the Third Place in the International RoboCup Competition in Brazil, 2014.
- Director of Behrobot Team and Took the Third Palce in Amirkabir International robotics and Artificial Intelligence Contests (Real Rescue Robots) 2015
- Director of Behrobot Team and Took the First Place in Iran Open Competition held in Tehran, 2012.
- Director of Behrobot Team and Took the First Place in Iran Open Competition held in Tehran, 2013.

## ACADEMIC EMPLOYMENT HISTORY

2016	Associate professor, Faculty of Engineering,, Azad University of Isfahan, Iran
2010-2016	Assistant Professor, Faculty of Engineering, Azad University of Isfahan, Iran
2006-2010	Lecturer, Faculty of Engineering, Azad University of Isfahan,Iran

## RESEARCH PROJECTS-GRANTS

### MAJOR GRANTS

Grant title	Chief investigators	Funding body	years	Amount
Design and Implementing new structure of converters for photovoltaic systems	Dr. Majid Delshad, Mahmood Vesali	IAU-Isfahan Branch	2015-2017	200000000 IRR
<i>Design and Implementation of new LED driver with PFC for street lighting</i>	Dr. Majid Delshad, Dr. M. Mahdavi, Dr. M. Amini	Saina Tarashe Company	2014-2015	70000000 IRR
Optimization of single switch boost converter with high efficiency	Dr. Majid Delshad-Dr. M. Mahdavi	IAU-Isfahan Branch	2011-2012	50000000 IRR
Implementation of a new bidirectional converter without auxiliary switch	Dr. Majid Delshad, Dr. Bahador Fani	IAU-Isfahan Branch	2010-2011	48000000 IRR

## PUBLICATIONS

### JOURNALS AND BOOKS

1. Translation of the book entitled "Energy Auditing Handbooks" Mina Raisi, Hosein Heidari, Majid Delshad, 2017.
2. Editor of the book "Understanding Automotive Electronics" First Edition.2012
3. M. Vesali, Majid Delshad, E. Adib, M.R. Amini, "A new nonisolated soft switched DC-DC bidirectional converter with high conversion ratio and low voltage stress on the switches" Int Trans Electr Energy Syst, 2020.(ISI) <https://onlinelibrary.wiley.com/doi/10.1002/2050-7038.12666>
4. Sh. Jahangiri, Majid Delshad, M. Vesali, "A New Single-Switch ZCS Flyback-Forward Converter with High Power Density", IETE Journal of Research,31 May 2020 .(ISI) <https://www.tandfonline.com/doi/abs/10.1080/03772063.2020.1768160>
5. B. Tohidi, Majid Delshad, H. Saghafi, "A new interleaved high step up converter with low voltage stress on the main switches" Smart Structures and Systems, Vol.26, No. 4, 2020 (ISI-Q1) <https://www.koreascience.or.kr/article/JAKO202030060641194.page>
6. M. Vesali, Majid Delshad, E. Adib, M.R. Amini, "A new non isolated soft switched DC-DC bidirectional converter with high conversion ratio", International Journal of Electronics, 2020, (ISI). <https://www.tandfonline.com/doi/abs/10.1080/00207217.2020.1756446>
7. T. Shamsi, Majid Delshad, "A New Simple-Structure Passive Lossless Snubber for DC\_DC Boost Converters" IEEE Transaction on Industrial Electronics, 2020, (ISI-Q1). <https://ieeexplore.ieee.org/document/9005373>
8. Sh. Nasr, Majid Delshad, M. Tavakoli "A new lossless snubber for DC-DC converters with energy transfer capability" Smart Structures and Systems, Vol.25, No. 3, 2020, (ISI-Q1) <http://www.techno-press.org/>

9. S. Talebi, E. Adib, **Majid Delshad**, "A High-Gain Interleaved DC–DC Converter with Passive Clamp Circuit and Low Current Ripple", Iranian Journal of Science and Technology, Transactions of Electrical Engineering, June 2020, (ISI). <https://link.springer.com/article/10.1007/s40998-020-00362-0>
10. **Majid Delshad**, M. Vesali, "A new high step-up soft switching converter for photovoltaic system" International Journal of Power Electronics, 2020. <https://www.inderscience.com/jpec>
11. Elham Gerami ; **Majid Delshad** ; Mohammad Reza Amini ; Mohammad Ruhollah Yazdani , "A new family of non-isolated PWM DC–DC converter with soft switching", IET Power Electronics, Vol.12, No.2, pp.237-244, 2019, (ISI-Q1) . <https://ieeexplore.ieee.org/document/8637728>
12. M. Bahmanpour, H. Koofigar, **Majid Delshad**, M. H. Tosifian, "Nonlinear Control and Implementation of Hybrid Power System" CONTROL ENGINEERING AND APPLIED INFORMATICS Vol.21, No.1, 2019, (ISI). <http://www.ceai.srait.ro/paper>
13. Sirous Talebi, Ehsan Adib, **Majid Delshad** "A High Gain Soft Switching Interleaved Dc-Dc Converter" IEICE TRANSACTIONS on Electronics, E.101, No.11, 2018, (ISI). <https://search.ieice.org/>
14. M. Bahmanpour, H. Koofigar, **Majid Delshad**, M. H. Tosifian, "Design and Implementation of Robust Nonlinear Controller for Hybrid Power Sources with Considering Power Losses" INTERNATIONAL JOURNAL of RENEWABLE ENERGY RESEARCH, Vol.8, No.3, 2018. <https://www.ijrer.org/ijrer>
15. **Majid Delshad**, mostafa fatehi, shokuh shabani, "A New Soft Switching Technique for High Step Down DC-DC Converter" Majlesi Journal of Energy Management, 2017. <http://journals.iaumajlesi.ac.ir/>
16. Mahmood Vesali, **Majid Delshad** , "A New Nonisolated ZVS Bidirectional Converter with Minimum Auxiliary Elements" IEICE TRANSACTIONS on Electronics, Vol.100, no.3, 2016, (ISI). <https://www.jstage.jst.go.jp/article>
17. M Vesali, **Majid Delshad**, "A Nonisolated Bidirectional ZVS Converter for Low Power Application" ECTI Transactions on Electrical Engineering, Electronics, And Communications, Vol.14, No.2, 2016. <https://ph02.tci-thaijo.org/index.php/ECTI-EEC/article/view/171130>
18. **Majid Delshad**, M Taherpoor, "A New Soft Switching Flyback- Forward PWM DC-DC Converter" International Journal of Industrial Electronics and Electrical Engineering, Vol. 3, 2015. <http://ijieeee.org.in/>
19. **Majid Delshad**, Nasrin Asadi Madiseh, Bahador Fani Mahmood Azari, "Implementation of Soft Switching Forward Converter with Self – Driven Synchronous Rectification", IEICE TRANSACTIONS on Electronics, 2015, (ISI). [https://www.jstage.jst.go.jp/article/transele/E98.C/10/E98.C\\_963/article](https://www.jstage.jst.go.jp/article/transele/E98.C/10/E98.C_963/article)
20. Mehrnoush Sharifian, **Majid Delshad**, "Improving the Steady Transient Performance in the Buck Converter Using Sliding Mode Control" International Transaction of Electrical and Computer Engineers System, Vol.2, 2014 <http://pubs.sciepub.com/iteces/2/1/1/index.html>
21. **Majid Delshad**, Nasrin Asadi Madiseh, "Implementation of Soft-Switching Bidirectional Flyback Converter Without Auxiliary Switch" IET Power Electronics, Vol.11, 2013, (ISI-Q1). <https://digital-library.theiet.org/content/journals/10.1049/iet-pel.2012.0472>
22. **M. Delshad**, "A New Asymmetrical Current-Fed Converter with Voltage Lifting" Advances in Electrical and Computer Engineering Vol.11, 2011, (ISI). <http://www.aece.ro/abstractplus.php?year=2011&number=2&article=5>
23. **Majid Delshad**, Hosein Farzanehfard "A New Soft Switched Push Pull Current Fed Converter For Fuel Cell Applications" Energy Conversion and Management, Vol. 52, 2011, (ISI-Q1). <https://www.sciencedirect.com/science/article/>

24. **M. Delshad**, H. Farzanehfard, "High Step-Up Zero-Voltage Switching Current-Fed Isolated Pulse Width Modulation DC-DC Converter" IET Power Electronics, 2011(1SI-Q1).  
<https://ieeexplore.ieee.org/abstract/document/5759296>
25. **M. Delshad**, H. Farzanehfard, "Soft Switched Current-Fed Push-Pull DC-DC Converter for Medium Power Applications" INTERNATIONAL REVIEW OF ELECTRICAL ENGINEERING-IREE 4 (2), 159-167, 2009.  
<https://www.praiseworthyprize.org/>
26. **M. Delshad**, Hosein Farzanehfard, "A New Soft Switching Isolated Buck-Boost PWM Converter" INTERNATIONAL REVIEW OF ELECTRICAL ENGINEERING-IREE 3 (5), 829-836, 2008.  
<https://www.praiseworthyprize.org>

## PRESENTATIONS-CONFERENCES

1. Majid Delshad ; Amir Torki Harchegani ; Mojtaba Karimi ; Mohammad Mahdavi , "A New ZVT Multi Input Converter For Hybrid Sources Systems" , International Conference On Applied Electronics, Czech Republic, 2016. <https://ieeexplore.ieee.org/document/7577242>
2. Majid Delshad ; Shahrooz Shahnamnia, "A New ZVT High Step Up DC-DC Converter" 9th International Conference On Electrical Engineering/Electronics, Computer, Telecommunications And Information Technology, 2012. <https://ieeexplore.ieee.org/document/6254128>
3. Majid Delshad ; S. Mohammadi ; "A new cascaded high step-up DC-DC converter" 9th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology, 2012. <https://ieeexplore.ieee.org/document/6254137>
4. Majid Delshad, Ehsan Shahri, "A New Soft Switching Interleaved Boost Converter With High Voltage Gain" ECTI-CON2011, Thailand, 2011. <https://ieeexplore.ieee.org/document/5947947>
5. Majid Delshad ; H. Eghbali "A new soft switching current-fed converter with voltage lift" The 8th Electrical Engineering/ Electronics, Computer, Telecommunications and Information Technology (ECTI) Association of Thailand - Conference 2011. <https://ieeexplore.ieee.org/document/5947939>
6. M. Mahdavian and **M. Delshad**, "A new soft single switched PWM DC-DC converter," The 8th Electrical Engineering/ Electronics, Computer, Telecommunications and Information Technology (ECTI) Association of Thailand - Conference 2011, Khon Kaen, 2011. <https://ieeexplore.ieee.org/document/5947991>
7. Majid Delshad, M.Mahdavi, "A New Zero Voltage Switching Buck-Boost Bidirectional DC-DC Converter", International Conference On Applied Electronics, Czech Republic,2010  
<https://ieeexplore.ieee.org/document/5599615>
8. Majid Delshad ; H. Farzanehfard , "A new isolated bidirectional buck-boost PWM converter", Power Electronic & Drive Systems & Technologies Conference,PEDSTC2010, Iran, 2010.  
<https://ieeexplore.ieee.org/document/5471860>
9. M. Delshad and B. Fani, "A new active clamping soft switching Weinberg converter," 2009 IEEE Symposium on Industrial Electronics & Applications, Kuala Lumpur, 2009 .<https://ieeexplore.ieee.org/document/5356322>.
10. S.H. Kasaei, S.M Kasaei, S. A. Kasaei, M. Taheri, A. Ahmadi, M. Delshad, "Autonomous navigation systems for mobile robots based on omni-directional vision system" 12<sup>th</sup> International Conferences on Climbing and Walking Robots CLAWAR 2009, Istanbul, 2009. <https://www.worldscientific.com/>
11. Majid Delshad ; H. Farzanehfard , "A Soft Switching Flyback Current-Fed Push Pull Dc-Dc Converter With Active Clamp Circuit" IEEE 2nd International Power And Energy Conference, MALAYSIA, 2008.  
<https://ieeexplore.ieee.org/document/4762471>

12. Majid Delshad, B. Fani, "A New Method For Discriminating Between Internal Faults And Inrush Current Conditions In Power Transformers Based On Neuro Fuzzy" International Conference On Power Engineering, Energy And Electrical Drives, Portugal 2007. <https://ieeexplore.ieee.org/document/4380119>
13. Majid Delshad ; H. Farzanehfard, "A new ZCS-PWM converter for high voltage high power application" International Conference on Electrical Machines and Systems, CHINA, 2005. <https://ieeexplore.ieee.org/document/1574962>

## PATENT

- |      |   |
|------|---|
| 2008 | Implementation of High Voltage DC-DC Converter with High Efficiency, The Iranian Judiciary, The office for Registration of Deeds and Properties, Patent Certifications          |
| 2010 | High Power Current-fed Converter with Low Losses and Power factor Correction, The Iranian Judiciary, The office for Registration of Deeds and Properties, Patent Certifications |
| 2010 | Switching Power Supply with High voltage Gain and Low Harmonic, The Iranian Judiciary, The office for Registration of Deeds and Properties, Patent Certifications               |

## MEMBERSHIP

- |           |   |
|-----------|---|
| 2008-2011 | IEEE (The Institute of Electrical and Electronics Engineers)                  |
| 2016-2019 | IEICE (The Institute of Electronics, Information and Communication Engineers) |

## CERTIFICATES-TRAINING

### TRAINING

- |      |   |
|------|---|
| 2015 | Certification of Attendance, Workshop on Commercialization of University Research, Commercialization of Intellectual Property, and the Role of Incubators & STPs in Technology Transfer Process |
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### CERTIFICATES

- |      |   |
|------|---|
| 2019 | Certification of Participation Robocup2019, Sydney, Australia   |
| 2016 | Certification of Participation Robocup Iranopen2016, Tehran, Iran   |
| 2016 | Certification of Attendance, National Conference of New Idea on Electrical Engineering                              |
| 2015 | Certification of Participation Robocup Iranopen2016, Tehran, Iran   |
| 2015 | Certification of Participation Amirkabir International robotics and Artificial Intelligence Contests , Tehran, Iran |
| 2014 | Certification of Participation Robocup2014, Brazil  |
| 2013 | Certification of Participation Robocup Iranopen2013, Tehran, Iran   |
| 2012 | Certification of Participation Robocup Iranopen2012, Tehran, Iran   |
| 2011 | Certification of Participation Robocup Iranopen2011, Tehran, Iran   |
| 2010 | Certification of Participation Robocup2010, Singapore   |
| 2009 | Certification of Participation Robocup2009,Graz, Austria  |

## COMPUTER SKILLS

Programing: C++, PYTHON

Development: MATLAB/Simulink, PSPICE, PSIM, PROTEL

Others: Windows, Microsoft Office

## CONFERENCE ORGANIZATION

- 2018 Chief of 6<sup>th</sup> National Conference” New Idea In Electrical Engineering”, IAU, Isfahan Branch, Iran.
- 2016 5th Scientific Secretary of the National Conference” New Idea In Electrical Engineering”, IAU, Isfahan Branch, Iran.
- 2015 4th Scientific Secretary of the National Conference” New Idea In Electrical Engineering”, IAU, Isfahan Branch, Iran.
- 2013 2th Scientific Secretary of the National Conference” New Idea In Electrical Engineering”, IAU, Isfahan Branch, Iran.
- 2012 Chief of the first National Conference” New Idea In Electrical Engineering”, IAU, Isfahan Branch, Iran.

## COMPLETED PHD SUPERVISION

1) Dr Elham Gerami

PhD Thesis Title: A new family of non-isolated PWM DC–DC converter with soft switching

Supervisors: Delshad M. Year Completed: 2018

2) Dr Masood Bahmanpour

PhD Thesis Title: Design and Implementation of Robust Nonlinear Controller for Hybrid Power Sources with Considering Power Losses

Supervisors: Koofgar , H.

Advisor: Delshad M. M. H. Tosifian ,Year completed: 2019

3) Dr Shabnam Nasr Isfahani

PhD thesis title:: A New Family of ZCS DC-DC Converters with Lossless Passive Snubber

Supervisors: Delshad M. Year completed: 2019