



# Homayon Soltani Gohari

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## Education

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### **M.Sc., (2017-2020)**

*Department of Electrical Engineering, K.N.Toosi University of Technology, Tehran, Iran*

**Thesis title:** Design and implementation of a bidirectional AC-DC converter with power factor correction (PFC)

**Supervisor:** Prof. Karim Abbaszadeh ([abbaszadeh@kntu.ac.ir](mailto:abbaszadeh@kntu.ac.ir))

### **B.Sc., (2013-2017)**

*Shahid Bahonar university of Kerman, Kerman, Iran*

Grade A

Member of Brilliant Talent Leadership Group(3 YEARS)

## Interests

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- Design, simulation, and implementation of different types of power electronics converters
- Hardware-in-the-loop (HIL) simulation
- Design and development of power factor correctors
- Control of power electronics converters

## Publications

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### **Single-Switch Resonant Soft-Switching Ultra-High Gain DC-DC Converter with Continuous Input Current, *IEEE Access*, vol. 10, pp. 33482-33491, 2022**

Sohrab Abbasian, **Homayon Soltani Gohari**, Mohammad Farsijani, Karim Abbaszadeh, Hossein Hafezi, Shaahin Filizadeh

### **Ultra-High Step-Up DC-DC Converters Based on Center-Tapped Inductors, *IEEE Access*, vol. 9, pp. 136373-136383, 2021**

Hadi Tarzamni, Naser Vosoughi Kurdkandi, **Homayon Soltani Gohari**, Matti Lehtonen, Oleksandr Husev, Frede Blaabjerg

### **Family of Multifunctional Controllable Converters for Grid, Battery, and PV-Powered EV Charging Station Applications,**

*2022 30th International Conference on Electrical Engineering*

**Homayon Soltani Gohari**, Amir SafaeiNasab, Karim Abbaszadeh

Publisher: IEEE

### **Design and Control of a Novel Multi-port Bidirectional Buck-Boost Converter**

**Suitable for Hybrid Electric Vehicle Charging Stations,**  
*2022 30th International Conference on Electrical Engineering*  
Amir SafaeiNasab, **Homayon Soltani Gohari**, Karim Abbaszadeh  
Publisher: IEEE

**A Three-Winding Coupled Inductor-Based Voltage Multiplier Cell Integrated DC-DC Converter With Continuous Input Current,**  
*2021 11th Smart Grid Conference (SGC)*  
Sohrab Abbasian, **Homayon Soltani Gohari**, Mohammad Farsijani, Karim Abbaszadeh  
Publisher: IEEE

**Hamiltonian Energy-Based Sliding Mode Control Approach for a Multi-port Bidirectional EV Charger via Zero Dynamic,**  
*2021 12th Power Electronics, Drive Systems, and Technologies Conference (PEDSTC)*  
Amir Safaeinasab, **Homayon Soltani Gohari**, Karim Abbaszadeh  
Publisher: IEEE

**Bidirectional Buck-Boost Integrated Converter for Plug-in Hybrid Electric Vehicles,** *Journal of Electrical and Computer Engineering Innovations (JECEI)*  
**Homayon Soltani Gohari**, K Abbaszadeh

**A Novel Controllable Bidirectional switching-capacitor based Buck-Boost Charger for EVs,**  
*2020 11th Power Electronics, Drive Systems, and Technologies Conference (PEDSTC)*  
**Homayon Soltani Gohari**, Karim Abbaszadeh  
Publisher: IEEE

**Improving Performance and Efficiency of a Fuel-cell Hybrid EV Using New Three-Port DC-DC Converter and Optimized Energy Management Strategy,**  
*2020 11th Power Electronics, Drive Systems, and Technologies Conference (PEDSTC)*  
**Homayon Soltani Gohari**, Karim Abbaszadeh  
Publisher: IEEE