

P.H. Divshali  
Senior Scientist  
BA2603 Power systems and renewables  
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## Employment

### **VTT Technical research center of Finland**

Senior Scientist  
BA2603 Power systems and renewables  
VTT Technical Research Centre of Finland  
11 Jun 2019 → present

### **Post Doctoral Researcher**

KTH Royal Institute of Technology  
Sweden  
1 Jan 2016 → 1 Jan 2018

### **Post doctoral Fellow**

State University of New York (SUNY Korea)  
Incheon, Korea, Republic of  
1 Jan 2015 → 1 Jan 2016

### **Technical Manager of electrical generation and distribution department**

Iran Broadcasting Organization  
Iran, Islamic Republic of  
1 Jan 2012 → 1 Jan 2015

### **Invited lecturer**

Islamic Azad University, South Tehran Branch  
Iran, Islamic Republic of  
1 Jan 2012 → 1 Jan 2015

### **Team leader of Energy management team**

Iran Broadcasting Organization  
Iran, Islamic Republic of  
1 Jan 2010 → 1 Jan 2012

### **Project managers**

Iran Broadcasting Organization  
Iran, Islamic Republic of  
1 Jan 2008 → 1 Jan 2010

### **Research Engineer**

Niroom Research Institute Tehran  
Iran, Islamic Republic of  
1 Jan 2006 → 1 Jan 2007

## Research outputs

### **Behaviour analysis of electrical vehicle flexibility based on large-scale charging data**

Divshali, P. H. & Evens, C., Jun 2019, *2019 IEEE Milan PowerTech, PowerTech 2019*. IEEE Institute of Electrical and Electronic Engineers , 6 p.

### **Modelling and Control of DC Microgrids in Residential Buildings**

Motta, S., Alahäivälä, A., Divshali, P., Pasonen, R., Kulmala, A., Mäki, K., Cho, Y. & Kim, H., Jun 2019, *Proceedings of the 25th International Conference on Electricity Distribution: CIRED 2019*. 5 p. 867

### **Smart Grid Co-Simulation by Developing an FMI-Compliant Interface for PSCAD**

Divshali, P., Laukkanen, M., Kulmala, A., Mäki, K., VanderMeer, A., Bhandia, R., Widl, E. & Steinbrink, C., Jun 2019, *Proceedings of the 25th International Conference on Electricity Distribution: CIRED 2019* . 5 p. 849

### **Improving PV Dynamic Hosting Capacity Using Adaptive Controller for STATCOMs**

Hasanpor Divshali, P. & Soder, L., 1 Mar 2019, In : *IEEE Transactions on Energy Conversion*. 34, 1, p. 415-425 11 p., 8481391.

### **Improving Hosting Capacity of Rooftop PVs by Quadratic Control of an LV-Central BSS**

Divshali, P. H. & Soder, L., 2019, In : *IEEE Transactions on Smart Grid*. 10, 1, p. 919-927 9 p., 8047265.

### **Small-signal stability improvement of an islanded microgrid with electronically-interfaced distributed energy resources in the presence of parametric uncertainties**

Khodadadi, A., Hasanpor Divshali, P., Nazari, M. H. & Hosseinian, S. H., 1 Jul 2018, In : *Electric Power Systems Research*. 160, p. 151-162 12 p.

### **The potential of distribution grid as an alternative source for reactive power control in transmission grid**

Astapov, V., Divshali, P. & Söder, L., 25 Jun 2018, *2018 19th International Scientific Conference on Electric Power Engineering, EPE 2018 - Proceedings*. Machacek, J., Radil, L., Moravek, J. & Ptacek, M. (eds.). IEEE Institute of Electrical and Electronic Engineers , p. 1-6 6 p.

### **Improving PV Hosting Capacity of Distribution Grids Considering Dynamic Voltage Characteristic**

Hasanpor Divshali, P. & Soder, L., 15 Jun 2018, *Proceedings of the 20th Power Systems Computation Conference, PSCC 2018*. IEEE Institute of Electrical and Electronic Engineers , 8442517

### **Improvement of RES hosting capacity using a central energy storage system**

Divshali, P. H. & Soder, L., 16 Jan 2018, *2017 IEEE PES Innovative Smart Grid Technologies Conference Europe, ISGT-Europe 2017 - Proceedings*. IEEE Institute of Electrical and Electronic Engineers , p. 1-6 6 p.

### **Multi-agent transactive energy management system considering high levels of renewable energy source and electric vehicles**

Liang, H., Choi, B. J. & Divshali, P. H., 20 Nov 2017, In : *IET Generation, Transmission and Distribution*. 11, 15, p. 3713-3721

### **Transactive demand side management programs in smart grids with high penetration of EVs**

Divshali, P. H., Choi, B. J., Liang, H. & Söder, L., 18 Oct 2017, In : *Energies*. 10, 10, 1640.

### **Efficient indirect real-time EV charging method based on imperfect competition market**

Divshali, P. H. & Choi, B. J., 8 Dec 2016, *2016 IEEE International Conference on Smart Grid Communications, SmartGridComm 2016*. IEEE Institute of Electrical and Electronic Engineers , p. 453-459 7 p. 7778803

### **Electrical market management considering power system constraints in smart distribution grids**

Divshali, P. H. & Choi, B. J., 25 May 2016, In : *Energies*. 9, 6, 405.

### **Stability preservation and power management in autonomous microgrids using adaptive nonlinear droop scheme**

Divshali, P. H., Nourollah, S. & PIRAYESH, A., 2015, In : *Turkish Journal of Electrical Engineering and Computer Sciences*. 23, p. 1958-1980

**A novel multi-stage fuel cost minimization in a VSC-based microgrid considering stability, frequency, and voltage constraints**

Divshali, P. H., Hosseini, S. H. & Abedi, M., 1 Jan 2013, In : IEEE Transactions on Power Systems. 28, 2, p. 931-939 9 p., 6303860.

**Enhancing small signal stability and reactive power-sharing accuracy in autonomous microgrids by a new decentralized reactive power controller**

Divshali, P. H., Hosseini, S. H. & Abedi, M., 15 Oct 2012, In : Electric Power Components and Systems. 40, 16, p. 1820-1841 22 p.

**Decentralized cooperative control strategy of microsources for stabilizing autonomous VSC-based microgrids**

Divshali, P. H., Alimardani, A., Hosseini, S. H. & Abedi, M., 17 Apr 2012, In : IEEE Transactions on Power Systems. 27, 4, p. 1949-1959 11 p., 6180210.

**Small-signal stability and load-sharing improvement of autonomous microgrids using auxiliary loop**

Hasanpor Divshali, P., Hosseini, S. H., Abedi, M. & Alimardani, A., 29 Mar 2012, In : Electric Power Components and Systems. 40, 6, p. 648-671 24 p.

**Decentralized VSC-based microgrid's general power flow**

Hasanpor Divshali, P., Hosseini, S. H. & Abedi, M., 1 Nov 2011, In : International Review of Electrical Engineering. 6, 7, p. 3041-3050 10 p.

**Application of bifurcation theory in dynamic security constrained optimal dispatch in deregulated power system**

Divshali, P. H., Hosseini, S. H., Azadani, E. N. & Abedi, M., 1 Sep 2011, In : Electrical Engineering. 93, 3, p. 157-166 10 p.

**Stability constrained optimal power flow in deregulated power systems**

Azadani, E. N., Hosseini, S. H., Divshali, P. H. & Vahidi, B., 1 Jan 2011, In : Electric Power Components and Systems. 39, 8, p. 713-732 20 p.

**Novel Approach for Determination of Worst Loading Direction and Fast Prediction of Stability Margin in Power Systems**

Vahidi, B., Azadani, E. N., Divshali, P. H., Hessaminia, A. H. & Hosseini, S. H., 1 Jan 2010, In : Simulation. 86, 12, p. 729-741 13 p.

**Reliable prediction of Hopf bifurcation in power systems**

Divshali, P. H., Hosseini, S. H., Nasr, E. & Vahidi, B., 1 Aug 2009, In : Electrical Engineering. 91, 2, p. 61-68 8 p.

**Economic dispatch in multi-area using particle swarm optimization in electricity market**

Azadani, E. N., Hosseini, S. H., Moradzadeh, B. & Hasanpor, P., 18 Sep 2008, *12th International Middle East Power System Conference, MEPCON 2008*. IEEE Institute of Electrical and Electronic Engineers , p. 559-564 4562353

**Optimal placement of multiple STATCOM**

Azadani, E. N., Hosseini, S. H. & Hasanpor, P., 18 Sep 2008, *2008 12th International Middle East Power System Conference, MEPCON 2008*. IEEE Institute of Electrical and Electronic Engineers , p. 523-528 4562388

**Optimal placement of multiple STATCOM for voltage stability margin enhancement using particle swarm optimization**

Azadani, E. N., Hosseini, S. H. & Hasanpor, P., 1 Sep 2008, In : Electrical Engineering. 90, 7, p. 503-510 8 p.