Faculty Profile

Dr. K. R. Devabalaji
Assistant Professor (SG),EEE
Hindustan Institute of Technology and Science
krdevab@hindustanuniv.ac.in

Experience: 2.5 Years of Research Experience and 4 Years of Teaching Experience

Research area: Renewable Energy

Journal Publications:

		Journal Paper	Impact Factor
	•	Yuvaraj, T., Devabalaji, K., Srinivasan, S., Prabaharan, N., Hariharan, R., Haes Alhelou, H., & Ashokkumar, B. (2021). Comparative analysis of various compensating devices in energy trading radial distribution system for voltage regulation and loss mitigation using blockchain technology and bat algorithm. Energy Reports. https://doi.org/10.1016/j.egyr.2021.08.184	6.87
	•	Sakthidasan @ Sankaran, Xiao-Zhi Gao, K.R. Devabalaji, Y. Mohana Roopa, Energy based random repeat trust computation approach and Reliable Fuzzy and Heuristic Ant Colony mechanism for improving QoS in WSN, Energy Reports,2021	6.87
	•	Pal, P., Parvathy, A. K., Devabalaji, K. R., Antony, S. J., Ocheme, S., Babu, T. S., Alhelou, H. H., & Yuvaraj, T. (2021). IoT-based real time energy management of virtual power plant using PLC for Transactive energy framework. IEEE Access, 9, 97643-97660. https://doi.org/10.1109/access.2021.3093111	3.367
	•	Yuvaraj, T.; Devabalaji, K.R.; Prabaharan, N.; Haes Alhelou, H.; Manju, A.; Pal, P.; Siano, P. Optimal Integration of Capacitor and Distributed Generation in Distribution System Considering Load Variation Using Bat Optimization Algorithm. Energies 2021	3.004
	•	Pal, P.; Krishnamoorthy, P.A.; Rukmani, D.K.; Antony, S.J.; Ocheme, S.; Subramanian, U.; Elavarasan, R.M.; Das, N.; Hasanien, H.M. Optimal Dispatch Strategy of Virtual Power Plant for Day-Ahead Market Framework. Appl. Sci. 2021	2.679
	•	K. S. Sankaran, N. Vasudevan, K. R. Devabalaji, T. S. Babu, H. H. Alhelou and T. Yuvaraj, "A Recurrent Reward Based Learning Technique for Secure Neighbor Selection in Mobile AD-HOC Networks," in IEEE Access, vol. 9, pp. 21735-21745, 2021, doi: 10.1109/ACCESS.2021.3055422.	3.367
	•	Devabalaji K R.; Thangaraj, Y.; Subramaniam, U.; Ramachandran, S.; Madurai	3.004

	Elavarasan, R.; Das, N.; Baringo, L.; Imran Abdul Rasheed, M. A New Approach to Optimal Location and Sizing of DSTATCOM in Radial Distribution Networks Using Bio-Inspired Cuckoo Search Algorithm. Energies 2020, 13, 4615.	
•	Sivasankar, N., Devabalaji, K.R."Comparative Analysis of Non-Isolated Three port converters for Solar and Energy Storage Integration", SSRG International Journal of Engineering Trends and Technology, 2020, 68(7)	--
•	Pal, P., Devabalaji, K.R., Priyadarshini, S., "Design of battery management system for residential applications", SSRG International Journal of Engineering Trends and Technology, 2020, 68(3), pp. 12–17	--
•	T. Yuvaraj, K. R. Devabalaji, Sudhakar Babu, "Simultaneous Allocation of DG and DSTATCOM Using Whale Optimization Algorithm", Iranian Journal of Science and Technology, Transactions of Electrical Engineering, 2019, pp- 1-18.	1.376
•	Sitharthan R, K R Devabalaji, Mohamed Imran, T Yuvaraj, "Automated Power Management Strategy for Wind Power Generation System using Pitch Angle Controller", Measurement and Control, 2018, 52 (3-4), 169-182	1.704
•	T. Yuvaraj, K. Ravi, K. R. Devabalaji, Mohamed Imran, "Integration of solar and wind based DGs with DSTATCOM in distribution system using modified bat algorithm" Gazi university journal of science. 2018, (Article in Press).	--
•	K. R. Devabalaji (3rd Author), "Improved fault ride through capability of DFIG-wind turbines using customized dynamic voltage restorer", Sustainable Cities and Society, Elsevier, Volume 39, May 2018, Pages 114-125.	7.587
•	K. R. Devabalaji (4th author), "Economic Dispatch problem using whale optimization algorithm", International Journal of Pure and Applied Mathematics, Vol. 117, No. 22, pp-253-257.	--
•	T. Yuvaraj, K. Ravi, K. R. Devabalaji, "DSTATCOM allocation in the radial distribution networks with different stability indices using bat algorithm" Gazi University, Journal of Science, pp:314-328 (2017)	--
•	R. Sitharthan, K. R. Devabalaji, Arun Jees, "An Levenberg–Marquardt trained feedforward back-propagation based intelligent pitch angle controller for wind generation system", Renewable Energy Focus, Elsevier 2017, Vol. 22-23, pp:24-32.	--
•	T. Yuvaraj, K. Ravi and K. R. Devabalaji "Optimal location and sizing of DG and DSTATCOM in radial distribution networks using cuckoo search algorithm" International Journal of Modelling and Simulation, Hindawi, Vol. 2017, 11 pages.	--
•	K.R. Devabalaji, T,Yuvaraj, K.Ravi "An efficient method for solving the optimal sitting and sizing problem of capacitor banks based on cuckoo search algorithm", Ain Shams Engineering Journal, Elsevier. Volume 9, Issue 4, December 2018, Pages 589-597.	3.18
•	T.Yuvaraj, K.Ravi, K.R.Devabalaji, Optimal placement and sizing of DSTATCOM using Harmony Search algorithm, Energy procedia, Elsevier, 2015,Vol. 79. pp,759-765.	--
•	K.R.Devabalaji, A.Mohamed Imran,T.Yuvaraj, K.Ravi, "Power loss minimization in radial distribution system", Energy procedia, Elsevier 2015. Vol.75. pp, 917-923.	--
•	T.Yuvaraj, K.Ravi, K.R.Devabalaji. "DSTATCOM allocation in distribution networks considering load variations using bat algorithm" Ain shams Engineering Journal, Elsevier. Volume 8, Issue 3, September 2017, Pages 391-403	3.18
•	K.R.Devabalaji, K.Ravi, "Optimal allocation of multiple DG and DSTATCOM in radial distribution system using Bacterial Foraging Optimization Algorithm" Ain shams Engineering Journal, Elsevier, 2016, Vol. 7, Issue 3, pp-959-971.	3.18

•	K.R.Devabalaji, K.Ravi, D.P Kothari. Optimal location and sizing of capacitor placement in radial distribution system using Bacterial Foraging Optimization Algorithm, International Journal of Electrical Power and Energy Systems. Elsevier, 2015, Vol. 71, 383-390.	4.63
	Total impact Factor	**53.998**
	Total Citation	**681**
	H-Index	**11**