

Resume

1. **Name:** Dr Dheeraj K Khatod
2. **Contact Details:** Associate Professor,
Room No. 121, East Block (Ground Floor)
Department of Electrical Engineering
Indian Institute of Technology Roorkee
Roorkee-247667, Uttarakhand, India
Tel.:- +91-1332-285690 (O), 285122 (R)
Fax:- +91-1332-273560
E-mail:- dheerfee@iitr.ac.in, khatoddheeraj@gmail.com
3. **Specialization:** Power System Engineering
4. **Present Research Area:** Distributed Generation, Renewable Energy, Power System Analysis and Optimization



5. **Educational Details:**

Degree	University/Board	Year	Percentage of Marks	Specialization/ Subjects
High School (10 th)	Board of Secondary Education, M.P.	1992	85.4%	Mathematics, Science, Social Science, Hindi, English, Sanskrit
Higher Secondary (12 th)	Board of Secondary Education, M.P.	1994	82.0%	Mathematics, Physics, Chemistry, Hindi, English
B.E.	National Institute of Technology, Raipur (erstwhile Govt. Engg. College of Technology, Raipur)	1998	75.1%	Electrical Engineering
M.Tech.	Indian Institute of Technology Roorkee	2002	7.71 CGPA	Electrical Engineering with specialization in Power System Engineering
Ph.D.	Indian Institute of Technology Roorkee	2007	NA	Optimal Planning of Distributed Generation System

6. **Professional Experience:**

Department/Institute	Position	Period	
		From	From
Alternate Hydro Energy Centre, IIT Roorkee	Fellow 'C'	Aug, 2007	May, 2008
Alternate Hydro Energy Centre, IIT Roorkee	Assistant Professor (on Contract)	May, 2008	Oct, 2010
Alternate Hydro Energy Centre, IIT Roorkee	Assistant Professor	Oct, 2010	Jul, 2016
Department of Electrical Engineering, IIT Roorkee	Associate Professor	Jul, 2016	Cont.

7. **Details of Courses Taught /Developed:**

(a) Courses Taught:

Under Graduate Level:

- CH-201: Energy Resources and Conservation
- EEN-206: Power Transmission and Distribution
- IAH-301: Small Hydropower Development

Post Graduate Level:

- AH-519: Bridge Course – AHES
- AH-532: Electrical Design of SHP Stations
- AHN-517A: Modelling, Simulation and Computer Applications
- AHN-528: Rural Electrical Energy System Planning and Design

- AHN-548: Simulation of Small Hydropower Plants
- EEN-661: Power System Planning

(b) Courses Developed: **Post Graduate Level:**

- AHN-548: Simulation of Small Hydropower Plants

8. Details of Project/Dissertation/Thesis Supervised:

(a) B. Tech. Project:

S. No.	Name of students	Title	Year of Completion	Co-supervisors
1.	Aman Kumar Anushree Meena Chitra Kumari	Algorithm Development for Reactive Power Compensation in Transmission Lines	2017	Dr Bhavesh Bhalja, EED
2.	Vimal Mishra Shashikant Rasmeriya Harpal Singh	SVM and ANN based protection scheme for power transmission lines in presence of non-linear load	2018	Dr Manoj Tripathy EED

(b) M. Tech. Dissertation:

S. No.	Name of student	Title	Year of Completion	Co-supervisors
1.	Chandra Sekhar Kolli	Development of Simulator for a SHP Plant	2009	-
2.	Nikhil Kumar	Development of Simulator for High Head SHP Plant	2009	Shri M.K. Singhal, AHEC
3.	Anurag Chauhan	Transient Analysis of Self-Excited Induction Generator with Electronic Load Controller (ELC) supplying Static and Dynamic loads	2010	Prof. J.D. Sharma, EED
4.	D. Lakshman Kumar	Simulation of Small Hydro Power Plant	2010	Shri M.K. Singhal, AHEC
5.	Tarannum Bahar	Performance Analysis of Permanent Magnet Synchronous Generator for SHP	2010	-
6.	Afroz Alam	Reconfiguration of Radial Distribution Network with Distributed Generation	2011	-
7.	Md. Farman	Design of Smart Off Grid Energy System	2011	Dr. Arun Kumar, AHEC
8.	Nitin Garg	Effect of Iron Losses on Steady State Performance of Self Excited Induction Generator	2011	-
9.	Subhash Yadav	Analysis of Grid interconnection Problems of SHP Plant	2011	Shri S.N. Singh, AHEC
10.	Ashish Singh	Optimal Placement of Distributed Generators in Distribution Network for Loss Minimization.	2012	-
11.	Sharad Rajan	Steady State Performance Evaluation of Self-Excited Induction Generator for SHP	2012	-
12.	Vikas Deep	Transient Analysis of Grid-Connected Doubly Fed Induction Generator coupled with Wind Turbine	2012	-
13.	Chandramohan G	Grid Interfacing of SPV Power Plant	2013	Dr. R. P. Saini, AHEC
14.	Indubhushan Kumar	Steady State Analysis and Stability Assessment of DFIG used in Renewable Energy	2013	Shri S.N. Singh, AHEC
15.	Niharika Varshney	Optimal Sizing of an Isolated Hybrid Energy System	2013	Dr. M. P. Sharma, AHEC
16.	Ranjana Sharma	Transient Analysis of Doubly Fed Induction Generator Coupled with Wind Mill	2013	Shri S.N. Singh, AHEC
17.	Ravneet Kaur	Reliability Assessment of Renewable Energy Based Autonomous System	2013	-
18.	Ankit Gupta	Modelling and Simulation of Doubly Fed Induction	2014	Dr. S.N. Singh,

		Generator Coupled with wind Turbine		AHEC
19.	Chiranjib Jha	Placement of Distributed Generation Units in a Distribution Network	2014	-
20.	Jyoti Rani Mahapatra	Reconfiguration of Distribution Network with Distributed Generation	2014	-
21.	Oppiliappa B G	Control of Grid Connected Small Hydropower Plant using Fuzzy Logic Controller	2014	-
22.	Piyali Mondal	Voltage Control of Permanent Magnet Synchronous Generator coupled with Wind Turbine	2014	-
23.	Saurabh Awasthi	Identification of Fault and its Location using Neural Network in Distribution Network with Distribution Generation	2014	-
24.	Akshita Gupta	Optimal Scheduling of Hybrid Renewable Energy System (HRES)	2015	-
25.	Anu Bhalla	Control of Doubly Fed Induction Generator Coupled with Wind Turbine	2015	-
26.	Ashima Krishna	Power Flow Solution with FACTS Devices in the Presence of Wind Generating Systems	2015	Prof. B. Das, EED
27.	Jaynendra Kumar	Optimized Design of Minigrid System	2015	-
28.	Pallavi Behera	Maximum Power Point Tracking Scheme for Wind Energy Conversion System	2015	-
29.	Prashant Kumar Singh	Placement of Distributed Generation in Distribution System	2015	-
30.	Rajesh Kumar	Optimized Planning of Smart Grid at IIT Roorkee Campus	2015	Shri M.K. Singhal, AHEC
31.	Sumer Chand Prasad	Harmonic Compensation of a Grid Connected Solar Photovoltaic System using Active Power Filter	2015	-
32.	Gaurav Verma	Development of Smart Grid System	2016	-
33.	Jagriti	Optimal Planning of Distributed Generation for Improved Voltage Stability and Loss Reduction	2016	-
34.	Mahendra Dutt Dwivedi	Control & Design of Minigrid	2016	-
35.	Manoj Kumar	Cost analysis of Low Head Run of River SHP plant	2016	-
36.	Prasant Kesarwani	Analysis of Grid connected PV system	2016	-
37.	Priyank Saxena	Modelling, Simulation & Control of Hybrid Power Generation	2016	-
38.	Sonam Dorji	Modelling and simulation of hydro power plant	2016	-
39.	Ajay Kumar Thakur	Analysis of Small Hydro-Power potential Development in Nepal	2017	-
40.	Deepak Upadhyay	Simulation of VFT for Power Transfer between Two Networks	2017	-
41.	Karma Dorji	Development of Smart Grid System in Bhutan	2017	-
42.	Meen Bahadur Dhami	Integration of Photovoltaic System in Existing Distribution Network in Nepal	2017	-
43.	Tula Ram Poudel	Performance Improvement of Existing Electric Grid System in Nepal	2017	-
44.	Udit Batra	Investigation on impact of River Sediment on Hydropower Development	2017	Prof. Arun Kumar, AHEC
45.	Umashankar Sharma	Utilization of Hydro Kinetic Energy as Distributed Generation	2017	-
46.	Prabhat Kumar Jha	Design for Solar Photovoltaic System for Remote Communication Lines	2018	Dr. M.K. Singhal, AHEC
47.	Ravi Kumar	Demand Side Management in Smart Grid for Energy Saving	2018	Dr. M.K. Singhal, AHEC

48.	Yerra Bindu	Mitigation of Power quality Issues in Solar Photovoltaic System	2018	Dr. M.K. Singhal, AHEC
49.	Himesh Kumar	Loss Allocation in Radial Distribution Network with Distributed Generation	2018	-
50.	Janardan Sharma	Modeling of Wind Energy System for Load Flow Study	Ongoing	-

(c) Ph.D. Thesis:

S. No.	Name of student	Title or Area of Research	Year Awarded	Co-supervisors
1.	Sachin Mishra	Cost Optimization of High Head Small Hydropower Projects	2013	Dr. S.K. Singhal, AHEC
2.	Mohit Bansal	Optimal Planning of Integrated Renewable Energy System	2015	Dr. R.P. Saini, AHEC
3.	Gopiya Naik S.	Distribution System Planning with Distributed Generation	2016	Dr. M.P. Sharma, AHEC
4.	Rajkumar Viral	Optimal Planning of Distributed Generation in Distribution System	2016	-
5.	Farhad Ilahi Baksh	Application of Variable Frequency Transformer (VFT) for Integration of Wind Energy System	2017	-
6.	Kushal Jagtap	Loss Allocation in Distribution System with Distributed Generation	2017	-
7.	Prem Prakash	Optimal Sizing and Siting of Distributed Generation	Ongoing since Jul, 2013	-
8.	Ramjee Lal Meena	Development of Control Strategies for DC Micro-Grid	Ongoing since Jul, 2013	Dr. Avik Bhattacharya, EED
9.	Surender Singh Tanwar	Optimal Planning of Distributed Generation for Distribution Network	Ongoing since Jul, 2013	-
10.	Shanti Bhai Patel	Optimal Location of Distributed Generation in Distribution System	Ongoing since Jul, 2015	Prof. S.P. Srivastava, EED
11.	Dixitkumar Prafulkumar Pathak	Development of Integrated Renewable Energy System for an un-electrified remote area	Ongoing since Jan, 2016	-

9. Details of Research Publications:

(a) National/International Journals:

- [1]. **D.K. Khatod**, V. Pant and J. Sharma, "A novel approach for sensitivity calculations in the radial distribution system", IEEE Transactions on Power Delivery, Vol. 21, No. 4, pp. 2048-2057, Oct 2006.
- [2]. **D.K. Khatod**, V. Pant and J. Sharma, "Analytical approach for well-being assessment of small autonomous power systems with solar and wind energy sources", IEEE Transactions on Energy Conversion, Vol. 25, No. 2, pp. 535-545, Jun 2010.
- [3]. S. Mishra, S.K. Singal and **D.K. Khatod**, "Effect of penstock length variation on hydraulic transients", Indian Journal of Power and River Valley Development, Vol. 60, No. 11 & 12, pp. 194-198, Nov-Dec, 2010.
- [4]. S. Mishra, S.K. Singal and **D.K. Khatod**, "Design of desilting tank for small hydropower projects-A Review", Water and Energy International, Vol. 68, No. 4, pp. 32-36, Apr 2011.
- [5]. S. Mishra, S.K. Singal and **D.K. Khatod**, "Approach for cost determination of electro-mechanical equipment in RoR SHP projects", Journal of Smart Grid and Renewable Energy, Vol. 2, No. 2, pp. 63-67, May 2011.
- [6]. S. Mishra, S.K. Singal and **D.K. Khatod**, "Sustainable energy development by small hydropower with CDM benefits in India", International Journal of Ambient Energy, Vol. 32, No. 2, pp. 103-110, Jun 2011.
- [7]. S. Mishra, S.K. Singal and **D.K. Khatod**, "Optimal installation of small hydropower plant-A review",

- Renewable and Sustainable Energy Review, Vol. 15, No. 8, pp. 3862-3869, Oct 2011.
- [8]. S. Mishra, S.K. Singal and **D.K. Khatod**, "A review on electromechanical equipment applicable to small hydropower plants", International Journal of Energy Research, Vol. 36, No. 5, pp. 553-571, Apr 2012.
 - [9]. S. Mishra, S.K. Singal and **D.K. Khatod**, "Costing of a small hydropower project", IACSIT International Journal of Engineering and Technology, Vol. 4, No. 3, pp. 239-242, Jun 2012.
 - [10]. S. Mishra, S.K. Singal and **D.K. Khatod**, "Effect of penstock length variation on mechanical power", International Journal of Energy Science, Vol. 2, No. 3, pp. 110-114, Jun 2012.
 - [11]. R. Viral and **D.K. Khatod**, "Optimal planning of distributed generation systems in distribution system: A review", Renewable Energy and Sustainable Reviews, Vol. 16, No. 7, pp. 5146-5165, Sep 2012.
 - [12]. Gopiya Naik S., **D.K. Khatod** and M.P. Sharma, "Planning and operation of distributed generation in distribution networks", International Journal of Emerging Technology and Advanced Engineering, Vol. 2, No. 9, pp. 381-388, Sep 2012.
 - [13]. M. Bansal, R.P. Saini and **D.K. Khatod**, "Development of cooking sector in rural areas of India-A review", Renewable Energy and Sustainable Reviews, Vol. 17, pp. 44-53, Jan 2013.
 - [14]. **D.K. Khatod**, V. Pant and J. Sharma, "Evolutionary Programming based optimal placement of renewable distributed generators", IEEE Transactions on Power Systems, Vol. 28, No. 2, pp. 683-695, May 2013.
 - [15]. S.G. Naik, **D.K. Khatod**, M.P. Sharma, "Optimal allocation of combined DG and capacitor for real power loss minimization in distribution networks", International Journal of Electrical Power and Energy Systems, Vol. 53, pp. 967-973, Dec 2013.
 - [16]. S. Mishra, S.K. Singal and **D.K. Khatod**, "Sizing and quantity estimation for desilting tank of small hydropower projects-An analytical approach", International Journal of Green Energy, Vol. 10, No. 6, pp. 574-587, 2013.
 - [17]. S. Mishra, S.K. Singal and **D.K. Khatod**, "Cost Analysis for Electromechanical Equipment in Small Hydropower Projects", International Journal of Green Energy, Vol. 10, No. 6, pp. 835- 847, 2013.
 - [18]. M. Bansal, R.P. Saini and **D.K. Khatod**, "Optimal sizing of a solar-biogas-based cooking system for a cluster of villages", International Journal of Sustainable Energy, Vol. 33, pp. 1017, 2014.
 - [19]. F.I. Bakhsh and **D.K. Khatod**, "Application of Variable Frequency Transformer (VFT) for Grid interconnection of PMSG based Wind Energy Generation System", Sustainable Energy Technologies and Assessments, Vol. 8, pp. 172-180, 2014.
 - [20]. R. Viral and **D.K. Khatod**, "An Analytical Approach for Sizing and Siting of DGs in Balanced Radial Distribution Networks for Loss Minimization", International Journal of Electrical Power & Energy Systems, Vol. 67, pp. 191-201, 2015.
 - [21]. S.N.G. Naik, **D.K. Khatod**, and M.P. Sharma, "Analytical Approach for Optimal Siting and Sizing of Distributed Generation in Radial Distribution Networks", IET Generation, Transmission & Distribution, Vol. 9, No. 3, pp. 209-220, 2015.
 - [22]. K.M. Jagtap and **D.K. Khatod**, "Loss Allocation in Radial Distribution Networks with Different Load Models and Distributed Generations", IET Generation, Transmission & Distribution, Vol. 9, No. 12, pp. 1275-1291, 2015.
 - [23]. K.M. Jagtap and **D.K. Khatod**, "Loss Allocation in Distribution Network with Distributed Generations", IET Generation, Transmission & Distribution, Vol. 9, No. 13, pp. 1628-1641, 2015.
 - [24]. F.I. Bakhsh and **D.K. Khatod**, "A new synchronous generator based wind energy conversion system feeding an isolated load through variable frequency transformer", Renewable Energy, Vol. 86, pp. 106-116, 2016.
 - [25]. K.M. Jagtap and **D.K. Khatod**, "Loss allocation in radial distribution networks with various distributed generation and load models", International Journal of Electrical Power & Energy Systems, Vol. 75, pp. 173-186, 2016.
 - [26]. P. Prakash and **D.K. Khatod**, "Optimal sizing and siting techniques for distributed generation in distribution systems: A review", Renewable and Sustainable Energy Reviews, Vol. 57, pp. 111-130, 2016.
 - [27]. K.M. Jagtap and **D.K. Khatod**, "Novel Approach for Loss Allocation of Distribution Networks with DGs", Electric Power Systems Research, Vol. 143, pp. 303-311, Feb 2017.
 - [28]. S.S. Tanwar and **D.K. Khatod**, "Techno-Economic and Environmental Approach for Optimal Placement and Sizing of Renewable DGs in Distribution System", Energy, Vol. 127, pp. 52-67, 2017.
 - [29]. S.G. Naik, **D.K. Khatod**, and M.P. Sharma, "Optimal Allocation of Dispatchable and Non-Dispatchable DG Units in Distribution Networks, International Journal of Electrical Engineering & Technology, Vol. 8, No. 6, pp. 29-56, 2017.

(b) National/International Conferences:

- [1]. Y.S. Rajput, A. Kumar, M.P. Sharma and **D.K. Khatod**, "Smart grid technology and its scope in India", Proceedings of National Conference on Renewable Energy (NaCORE-2009), Jodhpur (Rajasthan), Nov 5-7, 2009, pp. 84-88.
- [2]. M.P. Sharma, A. Agrawal and **D.K. Khatod**, "Integrated renewable energy sources and control of power through microgrid", Proceedings of National Conference on Renewable Energy (NaCORE-2009), Jodhpur (Rajasthan), Nov 5-7, 2009, pp. 197-202.
- [3]. **D.K. Khatod**, V. Pant and J. Sharma, "Optimized daily scheduling of wind-pumped hydro plants for a day-ahead electricity market system", 3rd International Conference on Power Systems (ICPS-2009), IIT Kharagpur (West Bengal), Dec 27-29, 2009.
- [4]. S. Mishra, **D.K. Khatod** and S.K. Singal, "Small hydropower development in India-a review", National Conference on Advances on Materials and Devices for Renewable Energy Sources (NCAMDRES-2010), Jaipur (Rajasthan), Feb 25-27, 2010.
- [5]. R. Viral and **D.K. Khatod**, "Remote Village Electrification planning by small hydro power projects in north-east India", National Conference on Renewable Energy (NCRE-2010), Tezpur (Assam), Mar 23-25, 2010.
- [6]. M.P. Sharma, A. Agarwal and **D.K. Khatod**, "Opportunities of smart grid in India and techno-economic evaluation of smart meters", National Conference on Renewable Energy (NCRE-2010), Tezpur (Assam), Mar 23-25, 2010.
- [7]. S. Mishra, S.K. Singal and **D.K. Khatod**, "Small hydropower schemes as an important renewable energy source", All India Seminar on Development of Green Fuels for Power Sectors, The Institution of Engineers (India), Kota Local Centre (Rajasthan), Apr 24-25, 2010.
- [8]. A. Chauhan and **D.K. Khatod**, "Modeling and simulation of self-excited induction generator (SEIG) with electronic load controller (ELC) reference to a stand- alone micro hydro-power plant", International Conference on Advances in Renewable Energy (ICARE-2010), MANIT, Bhopal (Madhya Pradesh), Jun 24-26, 2010.
- [9]. D.L. Kumar, M.K. Singhal and **D.K. Khatod**, "Simulation of small hydro power plant", International Conference on Advances in Renewable Energy (ICARE-2010), MANIT, Bhopal (Madhya Pradesh), Jun 24-26, 2010.
- [10]. N. Dutt, M.K. Singhal and **D.K. Khatod**, "Review of simulation analysis in shp simulator for medium head application" International Conference on Advances in Renewable Energy (ICARE-2010), MANIT, Bhopal (Madhya Pradesh), Jun 24-26, 2010.
- [11]. S. Mishra, S.K. Singal and **D.K. Khatod**, "Alternative to fossil fuel: small hydro in India", International Conference on Advances in Renewable Energy (ICARE-2010), MANIT, Bhopal (Madhya Pradesh), Jun 24-26, 2010.
- [12]. R.D. Patidar, S.P. Singh and **D.K. Khatod**, "Single-phase single-stage grid-interactive photo-voltaic system with active filter functions", 2010 IEEE Power and Energy Society General Meeting, Minneapolis, Minnesota, USA, Jul 25-29, 2010.
- [13]. C.S. Kolli and **D.K. Khatod**, "PSO based optimal load distribution between units in small hydroelectric plants", International Conference on Electrical Power and Energy Systems (ICEPES-2010), MANIT, Bhopal (Madhya Pradesh), Aug 26-28, 2010.
- [14]. S. Mishra, S.K. Singal and **D.K. Khatod**, "Development of Small Hydropower in India-A Review", National Conference on Futuristic Trend in Mechanical Engineering (FTME-2010), Ludhiana (Punjab), Oct 28-29, 2010.
- [15]. N. Garg and **D.K. Khatod**, "Modelling of induction generator including iron loss", International Conference on Applications of Renewable and Sustainable Energy for Industry and Society (REIS-2010), Osmania University, Hyderabad (Andra Pradesh), Dec 16-18, 2010.
- [16]. N. Garg, Sachin Mishra and **D.K. Khatod**, "A laboratory model for small hydro plant using self-excited induction generator", International Conference on Renewable Energy (ICRE-2011), Centre for Non-Conventional Energy Resources, University of Rajasthan, Jaipur (Rajasthan), Jan 17-21, 2011.
- [17]. S. Mishra, S.K. Singal and **D.K. Khatod**, "Costing of small hydropower projects", 2011 IEEE International Conference on Product Development and Renewable Energy Resources (ICPDRE-2011), R.M.K. Engineering College Kavaraipettai, Chennai (Tamilnadu), Feb 19-20, 2011.
- [18]. S. Mishra, S.K. Singal and **D.K. Khatod**, "Cost Determination of electro-mechanical equipment of a small hydropower plant", International Conference on Emerging trends in Mechanical Engineering (ICETME-2010), Thapar University, Patiala (Punjab), Feb 24-26, 2011.
- [19]. A. Alam and **D.K. Khatod**, "Reconfiguration of radial distribution network for loss reduction with distributed

- generation”, National Conference on Power and Energy System (NCPES-2011), Kota (Rajasthan), Apr 23-24, 2011.
- [20]. Md. Farman, **D.K. Khatod** and Arun Kumar, “Off grid Generation scheduling with wind-diesel and battery storage system”, International Conference on Emerging Green Technologies (ICEGT 2011), Periyar Maniammai University, Thanjavur (Tamilnadu), pp. 166-170, July 27-30, 2011.
- [21]. N. Garg and **D.K. Khatod**, “Iron loss effect on steady state analysis of self-excited induction generator”, International Conference on Emerging Green Technologies (ICEGT 2011), Periyar Maniammai University, Thanjavur (Tamilnadu), pp. 170-173, July 27-30, 2011.
- [22]. A. Alam and **D.K. Khatod**, “Reconfiguration of radial distribution network with distributed generation using Genetic Algorithm”, International Conference on Emerging Green Technologies (ICEGT 2011), Periyar Maniammai University, Thanjavur (Tamilnadu), pp. 245-247, July 27-30, 2011.
- [23]. Gopiya Naik S, **D.K. Khatod** and M.P. Sharma, “Impacts of distributed generation on distribution networks: A review”, International Conference on Electrical and Electronics Engineering (ICEEE 2011), Bangalore (Karnataka), Nov 21, 2011.
- [24]. Gopiya Naik S, **D.K. Khatod** and M.P. Sharma, “Optimal allocation of distributed generation in distribution system for loss reduction”, International Conference on Product Development and Renewable Energy Resources (ICPDRE 2012), Coimbatore (Tamilnadu), pp. 42-46, Feb 18-19, 2012.
- [25]. M. Bansal, R.P. Saini and **D.K. Khatod**, “An off-grid hybrid system scheduling for a remote area”, IEEE Students’ Conference on Electrical, Electronics and Computer Science (SCEECS 2012), MANIT, Bhopal (Madhya Pradesh), Mar 1-2, 2012.
- [26]. M. Bansal, R.P. Saini and **D.K. Khatod**, “Development of Integrated Renewable Energy System for Rural Electrification”, National Conference on Emerging Trends in Renewable Energy Technology (ETRET-12), Jaipur (Rajasthan), Apr 20-21, 2012, pp. 1-6.
- [27]. R. Viral and **D.K. Khatod**, “Review of Methods for Optimal Placement of Distributed Generation in Distribution Systems”, National Conference on Emerging Trends in Renewable Energy Technology (ETRET-12), Jaipur (Rajasthan), Apr 20-21, 2012, pp. 65-74.
- [28]. R. Viral and **D.K. Khatod**, “Distributed generation and renewables in Indian perspective”, International Conference on Renewable Energy (ICRE-12), Baru Sahib (Himanchal Pradesh), May 5-6, 2012.
- [29]. M. Bansal, R.P. Saini and **D.K. Khatod**, “Evolutionary algorithm based optimal scheduling of wind/diesel/battery based off grid system”, 7th International Conference on Industrial and Information Systems, IIT Madras (Tamilnadu), Aug 6-9, 2012.
- [30]. Gopiya Naik S, **D.K. Khatod** and M.P. Sharma, “Sizing and siting of distributed generation in distribution networks for real power loss minimization using analytical approach”, IEEE International Conference on Power, Energy and Control (ICPEC), Dindigul (Tamil Nadu), Feb. 6-8, 2013.
- [31]. R. Viral and **D.K. Khatod**, “An Interval arithmetic based programming technique for radial distribution system load flow”, IEEE International Conference on Research and Development Prospects on Engineering and Technology (ICRDPE-13), Nagapattinam (Tamilnadu), Mar 29-30, 2013.
- [32]. F.I. Bakhsh and **D.K. Khatod**, “Variable frequency transformer-state of the art review”, International Conference on Energy Efficient Technologies for Sustainability (ICEETS), Nagercoil (Tamil Nadu), Apr 10-12, 2013.
- [33]. R. Viral and **D.K. Khatod**, “A novel analytical approach for optimal placement of DG in radial distribution networks”, 5th International Conference on Computer Applications in Electrical Engineering- Recent Advances (CERA-13), Roorkee (Uttarakhand), Oct 3-5, 2013.
- [34]. F.I. Bakhsh and **D.K. Khatod**, “Digital Simulation of VFT applications between power system networks”, 4th International Conference on Advances in Electrical & Electronics (ICAEE-13), pp. 60-74, Dec 13-14, 2013.
- [35]. R. Viral and **D.K. Khatod**, “An analytical strategy for multiple DG placement in radial distribution networks for loss minimization”, IEEE International Conference on Control Instrumentation, Energy and Communication (CIEC-13), Calcutta (West Bengal), Jan 31- Feb 2, 2014.
- [36]. R. Viral and **D.K. Khatod**, “An IvP based programming technique for DG sitting and sizing in radial distribution systems”, International Conference on Optimization, Reliability, and Information Technology (ICROIT), Faridabad (Haryana), Feb 6-8, 2014.
- [37]. M. Bansal, R.P. Saini and **D.K. Khatod**, “Modeling and optimization of integrated renewable energy system for a rural site”, International Conference on Optimization, Reliability, and Information Technology (ICROIT), Faridabad (Haryana), Feb 6-8, 2014.
- [38]. K.M. Jagtap and **D.K. Khatod**, “Impact of different types of distributed generation in radial distribution

- network”, International Conference on Optimization, Reliability, and Information Technology (ICROIT), Faridabad (Haryana), Feb 6-8, 2014.
- [39]. F.I. Bakhsh and **D.K. Khatod**, “Closed loop control analysis of variable frequency transformer (VFT)”, IEEE Students’ Conference on Electrical, Electronics and Computer Science (SCEECS), MANIT Bhopal (Madhya Pradesh) Mar 1-2, 2014.
- [40]. F.I. Bakhsh and **D.K. Khatod**, “A novel method for grid integration of synchronous generator based wind energy generation system”, IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES), Mumbai (Maharashtra), Dec. 16-19, 2014.
- [41]. K.M. Jagtap and **D.K. Khatod**, “Allocation of distribution network losses by pro rata techniques”, International Seminar on Renewable Energy and Sustainable Development (RES-D), Rinchending, Phuentsholing (Bhutan), Jun 15-17, 2015.
- [42]. K.M. Jagtap and **D.K. Khatod**, “Allocation of distribution network losses with different types of distributed generation”, 12th IEEE India International Conference on Electronics, Energy, Environment, Communication, Computer, Control (INDICON), New Delhi, Dec 17-20, 2015.
- [43]. Prem Prakash and **D.K. Khatod**, “Review of methods for optimal sizing and siting of distributed generation”, 12th IEEE India International Conference on Electronics, Energy, Environment, Communication, Computer, Control (INDICON), New Delhi, Dec 17-20, 2015.
- [44]. S.S. Tanwar and **D.K. Khatod**, “A review on distribution network expansion planning”, 12th IEEE India International Conference on Electronics, Energy, Environment, Communication, Computer, Control (INDICON), New Delhi, Dec 17-20, 2015.
- [45]. Prem Prakash and **D.K. Khatod**, “An analytical approach for optimal sizing and siting of distributed generation in radial distribution systems”, 2nd International Conference on Advances in Steel, Power and Construction Technology, Raigarh (Chhattisgarh), Mar 17-19, 2016.
- [46]. Sonam Dorji and **D.K. Khatod**, “Simulation and analysis of the effect of three phase to ground faults on large hydro powers”, 2nd International Conference on Advances in Steel, Power and Construction Technology, Raigarh (Chhattisgarh), Mar 17-19, 2016.
- [47]. K.M. Jagtap and **D.K. Khatod**, “Current summation method of loss allocation with distributed generation”, 2nd International Conference on Advances in Steel, Power and Construction Technology, Raigarh (Chhattisgarh), Mar 17-19, 2016.
- [48]. S.S. Tanwar and **D.K. Khatod**, “Techno-economic analysis of DG siting and sizing in balanced radial distribution system”, 2nd International Conference on Advances in Steel, Power and Construction Technology, Raigarh (Chhattisgarh), Mar 17-19, 2016.
- [49]. R.L. Meena, A. Bhattacharya and **D.K. Khatod**, “Control and Operation of Grid-Connected Solar Photovoltaic for DC Microgrid Application”, 7th Power India International Conference (IEEE PIICON 2016), Bikaner (Rajasthan), Nov 25-27, 2016.
- [50]. K.M. Jagtap and **D.K. Khatod**, “Distribution Loss Allocation Technique with Distributed Generations”, 19th National power System Conference (NPSC-2016), Bhubaneswar (Orissa), Dec 19-21, 2016.
- [51]. Ajay Thakur and **D.K. Khatod**, “Analysis and Optimization of barriers to Hydro-power Development in Nepal”, 4th International Conference on Energy Systems and Development, Pune (Maharashtra), Feb 20-24, 2017.
- [52]. K.M. Jagtap and **D.K. Khatod**, “Current summation based approach for loss allocation with distributed generation”, International Conference on Power, Instrumentation, Control and Computing (PICC-2018), Thrissur (Kerala), Jan 18-20, 2018.

10. Details of Books/Chapters Written:

- [1]. S. Mishra, S.K. Singal and **D.K. Khatod**, “Cost Optimization of High Head Run of River Small Hydropower Projects” (chapter) in book “Application of Geographical Information Systems and Soft Computation Techniques in Water and Water Based Renewable Energy Problems”, Springer, 2018.

11. Details of Research and Consultancy Projects:

(a) Research Project:

S. No.	Role	Title	Funding Agency	Amount (in Lacs)	Duration
1.	Co-PI	FIST support to AHEC to strengthen the research and teaching on Hydropower Generation	DST, New Delhi	92.00	Jan, 2012-Dec, 2016

(b) Consultancy Project:

S. No.	Role	Title	Funding Agency	Amount (in Lacs)	Duration
1.	Co-PI	Study of Rural Electricity Service through Renewable Energy Based Distributed Power Generation	The Energy and Resources Institute (TERI), New Delhi	Rs. 6.50	Sep, 2008 – Sep, 2010
2.	Co-PI	Techno-Economic Review of DPR for Girna Small Hydroelectric Plant, Maharashtra	SEP Energy Pvt. Ltd., Chennai	Rs. 1.12	Jan, 2009 – May, 2009
3.	PI	Techno-Economic Review of DPR for Papumpam Hydroelectric Plant, Arunachal Pradesh	M/s Meena Entrade and Engg. Pvt. Ltd., Naharlagun, Andhra Pradesh	Rs. 9.92	Dec, 2009 – Dec, 2013
4.	Co-PI	Study for optimization of Hydro resources in the state of Karnataka	Karnataka Power Corporation Ltd., Bangalore	Rs. 178.31	Jan, 2015 – Dec, 2015

12. Details of Short-Term Training Courses:

- (a) Organized: **39**
(b) Involved as an Expert: **50+**

13. Other Relevant Particulars:

- (a) Got a Silver Medal in National Talent Contest-1992 organized by Central Institute of General Knowledge Learning, New Delhi,
(b) Got B.E. degree with Honours,
(c) Secured 96.95 Percentile (AIR-195) in GATE-2000 for admission to Post-Graduate Programme,
(d) Member of Institute of Electrical and Electronics Engineers (IEEE),
(e) Member of International Association of Engineers (IAENG),

.o0o.