

FACULTY PROFILE



Name:Dr. PAVAN KHETRAPAL

Designation:Associate Professor

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Professional Qualification:

- Ph.D, MANIT, Bhopal, India, 2017.
- M.Tech, GNDEC, Ludhiana, India, 2009.
- B. Tech, RGPV, Bhopal, India, 2001.

Publications (Journals & Conferences):

- Sourav Diwani, Maneesh Kumar, Rajeev Kumar, Arun Kumar, Varun Gupta, **Pavan Khetrupal**, “Machine learning-based thermo-electrical performance improvement of nanofluid-cooled photovoltaic–thermal system” *Energy and Environment. (Article in Press) (SSCI Indexed, IF: 3.154)*
- Sourav Diwani, Rajeev Kumar, Sudhir Kumar Singh, Gagandeep Singh Dua, **Pavan Khetrupal**, “Performance Assessment of a Serpentine Tube PVT System using Cu and TiO₂ nanofluids: An Experimental Study” *Journal of the Brazilian Society of Mechanical Sciences and Engineering, Vol. 44, No. 5, 2022. (SCI Indexed, IF: 2.361) <https://doi.org/10.1007/s40430-022-03366-5>*
- Sridhar Joshi, Ravi Tripathi, Manoj Badoni, Rajeev Kumar, **Pavan Khetrupal**, “Design and Development of Non-Linearly Controlled Class-D Audio Amplifier”*Electronics, 11, 77, 2022. (SCI Indexed, IF: 2.690) <https://doi.org/10.3390/electronics11010077>.*
- Rajeev Kumar, Sourav Diwani, **Pavan Khetrupal**, Sheetal Singh, Manoj Badoni “Multimachine stability enhancement with hybrid PSO-BFOA based PV- STATCOM”. *Sustainable Computing: Informatics and Systems, (Accepted for Publication). (Online Available –6th November, 2021) (SCI Indexed, IF: 4.923) <https://doi.org/10.1016/j.suscom.2021.100615>*
- Rajeev Kumar, Sourav Diwani, **Pavan Khetrupal**, Sheetal Singh, “Performance assessment of the two metaheuristic techniques and their Hybrid for power system stability enhancement with PVSTATCOM”. *Neural Computing and Applications, (Accepted for Publication).*

(Online Available – 3rd November, 2021) (SCI Indexed, IF: 5.102)<https://doi.org/10.1007/s00521-021-06637-9>

- Rajeev Kumar, **Pavan Khetrupal**, Manoj Badoni, Sourav Diwania, “Evaluating the Relative Operational Performance of Wind Power Plants in Indian Electricity Generation Sector using Two-Stage Model”. *Energy and Environment*, (Accepted for Publication - SAGE Publications). (Online Available – September 2021) (SSCI Indexed, IF: 3.154)[DOI: 10.1177/0958305X211043531](https://doi.org/10.1177/0958305X211043531).
- Rajeev Kumar, Sourav Diwania, Rajveer Singh, Haroon Ashfaq, **Pavan Khetrupal**, Sheetal Singh, “An intelligent Hybrid Wind–PV farm as a static compensator for overall stability and control of multimachine power system”. *ISA Transactions*, 2021 (Elsevier Publications) (Online Available – May 2021). (SCI Indexed, IF: 5.911)

<https://doi.org/10.1016/j.isatra.2021.05.014>.

- Tooraj Jamasb, Manuel Llorca, **Pavan Khetrupal**, Tripta Thakur, “Institutions and performance of regulated firms: Evidence from electricity distribution in India”, *Economic Analysis and Policy*, Vol. 70, pp. 68 – 82, 2021 (Elsevier Publications). <https://doi.org/10.1016/j.eap.2021.02.002>. (SSCI Indexed, IF: 4.444)
- **Pavan Khetrupal**, “Performance analysis of electricity distribution sector post the implementation of electricity act 2003: empirical evidence from India”, *Journal of Advances in Management and Research*, Vol. 17, No. 5, pp. 669 – 696, 2020. (Emerald Publications) (SCOPUS Indexed and WoS (ESCI) Indexed, CiteScore: 4.7 (2021)).
- **Pavan Khetrupal**, Shivam Shrivastava and J. N. Pathan “Power Loss Minimization in Radial Distribution Systems with Simultaneous Placement and Sizing of Different Types of Distribution Generation Units Using Improved Artificial Bee Colony Algorithm”, *International Journal on Electrical Engineering and Informatics*, Vol. 12, No. 03, pp. 686 – 707, 2020. (SCOPUS Indexed).
- **Pavan Khetrupal**, “Distribution Network Reconfiguration of Radial Distribution Systems for Power Loss Minimization Using Improved Harmony Search Algorithm”, *International Journal on Electrical Engineering and Informatics*, Vol. 12, No. 02, pp. 341 -358, 2020. (SCOPUS Indexed).
- **Pavan Khetrupal**, “Distributed Generation: A Critical Review of Technologies, Grid Integration Issues, Growth Drivers and Potential Benefits”, *International Journal on Renewable Energy Development*, Vol. 9, No. 02, pp. 189 – 205, 2020. (SCOPUS Indexed and WoS (ESCI) Indexed).
- **Pavan Khetrupal**, “A Two – Stage DEA - OLS Approach for Analyzing the Impact of Multi - Year Tariff Regulation on the Performance of Indian Electricity Distribution Utilities”, *International Journal on Emerging Technologies*, Vol. 10, No. 03, 2019. (SCOPUS Indexed).
- **Pavan Khetrupal**, “A Novel Fast Hybrid Frequency Domain Approach for Evaluating Harmonic Power Flow in Electricity Networks”, *International Journal of Scientific and Technology Research*, Vol. 08, No. 08, pp. 275 – 286, 2019. (SCOPUS Indexed).
- Tooraj Jamasb, Manuel Llorca, **Pavan Khetrupal** & Tripta Thakur, 2018, “Institutions and Performance of Regulated Firms: Evidence from Electric Utilities in the Indian States”, Working Paper, March 2018.
- **Pavan Khetrupal**, “A Transformed Fixed Effect Stochastic Frontier Approach for Productivity Evaluation in Indian Electricity Sector”, *International Journal of Productivity*

and Performance Management, Vol. 67, Issue 09, 2018. (Emerald Publications) (SCOPUS Indexed and WoS (ESCI) Indexed, CiteScore: 4.9 (2021)).

- **Pavan Khetrpal**, Tripta Thakur and Alok Gupta, "X-Factor Evaluation under RPI-X Regulation for Indian Electricity Distribution Utilities," *Journal of Engineering Science and Technology*, Vol. 12, No. 7, pp. 1900 – 1914, 2017. (SCOPUS Indexed and WoS (ESCI) Indexed).
- **Pavan Khetrpal**; Tripta Thakur and Alok Gupta, "An Econometric Approach for Evaluating the Cost Efficiency in Post Reform Era: Empirical Evidence from Indian Electricity Supply Industry," *World Review of Science, Technology and Sustainable Development*, Vol.12, No.3, pp.244 – 256, 2016. (Inderscience Publications) (SCOPUS Indexed)
- **Pavan Khetrpal**, Tripta Thakur and Alok Gupta, "Performance Evaluation of Government Regulated Energy Distribution Utilities: A Stochastic Frontier Approach," *Electrical and Electronics Engineering: An International Journal*, Vol. 4, No. 4, pp. 63-76, December 2015, doi:10.14810/elelij.2015.4407.
- **Pavan Khetrpal**, Tripta Thakur and Alok Gupta, "Estimation of Utility Level Technical Efficiency in Electricity Distribution in India: A Parametric Frontier Approach", *Journal of Automation and Systems Engineering*, Vol. 09, No. 4, pp. 236-244, 2015.
- **Pavan Khetrpal** and Tripta Thakur, "A Review of Benchmarking Approaches for Productivity and Efficiency Measurement in Electricity Distribution Sector," *International Journal of Electronics and Electrical Engineering*, Vol. 2, No. 3, pp. 214-221, September 2014. doi:10.12720/ijeee.2.3.214-221
- **Pavan Khetrpal** and Parijat Rai, 2010, 'Recent Trends in Transmission Pricing Methodologies in Restructured Power System', Proceedings of **International Conference on Power Systems Operation and Control, ICOPS'10**, GNDEC, Ludhiana, India, pp. 112–117.
- Tooraj Jamasb, Manuel Llorca, **Pavan Khetrpal** & Tripta Thakur, "The Effect of Institutions on Sectoral Performance: The Case of Electricity Distribution in Indian States", in Proceedings of **15th IAEE International Conference on Heading Towards Sustainable Energy Systems: Evolution or Revolution?** Sept 3-6, 2017, Vienna, Austria.
- Tripta Thakur and **Pavan Khetrpal**, "Benchmarking of Indian Electricity Distribution Utilities Using Data Envelopment Analysis", 15th International Conference on Data Envelopment Analysis, University of Economics, Prague in the Czech Republic, June 26 to 29, 2017.
- **Pavan Khetrpal** and Parijat Rai, 2011, 'An Overview of Transmission Cost Allocation Methods in Competitive Electricity Market', Proceedings of **National Conference on National Conference on Power, Instrumentation, Energy and Control, (πCON-2011)**, Aligarh Muslim University, Aligarh, India.

Awards and Achievements

- Received cash reward of Rs 10,000/- for giving 100% result of subject **TEE-201 (Basic Electrical Engineering)** for May 2007 University Semester End Exam at **Ajay Kumar Garg Engineering College, Ghaziabad (UP)**.

- Received cash reward of Rs 5,000/- for giving more than 95% result of subject **TEE-101(Electrical Engineering)** for the December 2007 University Semester End Exam at **Ajay Kumar Garg Engineering College, Ghaziabad (UP)**.

Work Experience: Teaching: 21.5 Years; Industrial: 1.10 Years