

List of Publications

Journals:

1. **Abhinandan Routray**, R. K. Singh and R. Mahanty, "Harmonic Minimization in Three-Phase Hybrid Cascaded Multilevel Inverter Using Modified Particle Swarm Optimization," **IEEE Transactions on Industrial Informatics**, vol. 15, no. 8, pp. 4407-4417, Aug. 2019.
2. **Abhinandan Routray**, R. K. Singh and R. Mahanty, "Harmonic Reduction in Hybrid Cascaded Multilevel Inverter Using Modified Grey Wolf Optimization," **IEEE Transactions on Industry Applications**, vol. 56, no. 2, pp. 1827-1838, Mar/Apr, 2020.
3. **Abhinandan Routray**, R. K. Singh and R. Mahanty, "Selective Harmonic Elimination in Hybrid Cascaded Multilevel Inverter Using Modified Whale Optimisation," **International Transactions on Electrical Energy Systems**, vol 30, no.4, Mar, 2020, DOI:10.1002/2050-7038.12298.
4. Y. Khandelwal, **Abhinandan Routray**, R. K. Singh and R. Mahanty, "Reduced voltage stress hybrid multilevel inverter using optimised predictive control," **IET Power Electronics (Accepted)** DOI:10.1049/iet-pel.2019.1314.
5. **Abhinandan Routray**, J. Motawani, R. K. Singh and R. Mahanty, "Seventeen-Level Extendable Switched Capacitor Multilevel Inverter Using One Voltage Source and Reduced Components," **IET Power Electronics (first revision submitted)**.
6. **Abhinandan Routray**, R. K. Singh and R. Mahanty, "Modified Grey Wolf Optimization Based Hybrid Multilevel Inverter Using Reduced Components," **IET Power Electronics (in review)**.
7. **Abhinandan Routray**, R. K. Singh and R. Mahanty, "Quasi-resonant hybrid multilevel inverter for suppressed peak capacitor current spikes," **IET Power Electronics (in review)**.

International Conferences:

1. **Abhinandan Routray**, R. K. Singh and R. Mahanty, "Selective Harmonic Elimination and Balancing of Capacitor Voltage in Hybrid Cascaded Multilevel Inverter Using Model Predictive Control," 2019 IEEE Energy Conversion Congress and Exposition (ECCE), Baltimore, MD, USA, 2019, pp. 2597-2602.

2. **Abhinandan Routray**, K. Shiluveru, Akash Singh, R. K. Singh and R. Mahanty, "Reduced Voltage Stress Thirteen-Level Extendable Switched Capacitor Multilevel Inverter," 2019 IEEE Energy Conversion Congress and Exposition (**ECCE**), **Baltimore**, MD, USA, 2019, pp. 6224-6230.
3. **Abhinandan Routray**, R. K. Singh and R. Mahanty, "Modified Particle Swarm Optimization Based Harmonic Minimization in Hybrid Cascaded Multilevel Inverter," 2018 IEEE Energy Conversion Congress and Exposition (**ECCE**), **Portland**, OR, USA, 2018, pp. 5573-55.
4. **Abhinandan Routray**, R. K. Singh and R. Mahanty, "Capacitor Voltage Balancing in Hybrid Cascaded Multilevel Inverter Using Genetic Algorithm at Higher Modulation Indices," 2018 IEEE Energy Conversion Congress and Exposition (**ECCE**), **Portland**, OR, USA, 2018, pp. 3688-3693.
5. **Abhinandan Routray**, R. K. Singh and R. Mahanty, "GA optimized SHE PWM hybrid cascaded H-bridge multilevel inverter with capacitor voltage balancing," 2017 IEEE Energy Conversion Congress and Exposition (**ECCE**), **Cincinnati**, OH, 2017, pp. 714-721.
6. **Abhinandan Routray**, R. K. Singh and R. Mahanty, "Scalable Thirteen-Level Hybrid Multilevel Inverter Using Reduced Components," 2020 IEEE Energy Conversion Congress and Exposition (**ECCE**), **Detroit**, Michigan, USA. (**Accepted**).
7. J.K. Motwani, **Abhinandan Routray**, R. K. Singh and R. Mahanty, "Optimized Predictive Control of Hybrid Multilevel PV Inverter with Reduced Leakage Current," 2020 IEEE Energy Conversion Congress and Exposition (**ECCE**), **Detroit**, Michigan, USA. (**Accepted**).
8. **Abhinandan Routray**, A. Singh, R. K. Singh and R. Mahanty, "Reduced voltage stress extendable seventeen-level multilevel inverter using single voltage source," 2019, 10th Power Electronics and Machine Drives (**PEMD**), **University of Nottingham**, UK, 2019. (**Accepted**).
9. **Abhinandan Routray**, V. Patel, R. Mahanty and R. K. Singh, "A novel GA optimized SHE PWM hybrid cascaded H-bridge multilevel inverter with Capacitor Voltage Averaging for motor drive applications," 2016 IEEE International Conference on Power Electronics, Drives and Energy Systems (**PEDES**), Trivandrum, 2016, pp. 1-5.
10. **Abhinandan Routray**, R. K. Singh and R. Mahanty, "Capacitor Voltage Balancing in Hybrid Cascaded Multilevel Inverter Using Modified Model Predictive Control," 2020 IEEE International Conference on Emerging Trends in Communication, Control and Computing (**ICONC3**), Lakshmanagarh, Sikar, India, 2020, pp. 1-5, DOI: 10.1109/ICONC345789.2020.9117356.