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| **[[1]](#footnote-1)Authors Name/s**  **2Authors Name/s** | **Regular paper**  **Paper Title (use style: paper title)**  **Subtitle as needed** |  |
| ***Abstract: -*** The usage of the word Power quality in recent times acquired intensified interest due to the complex industrial processes. The usage of intelligent tools to improve power quality is increasing day by day, as assumption of present day power system as a linear model is unsatisfactory. This paper deals with analysis of Differential Evolution (DE), Hybrid Differential Evolution (HDE) and Variable Scaling Hybrid Differential Evolution for harmonic reduction in the source current with optimal tuning of PI controller gain values. Shunt Active power Filter is one of the better solution to suppress the source current harmonics which are induced into power system because of nonlinear loads. Current controller called HBCC is considered for gating operation of switches in Voltage Source Inverter. The Intelligent tuned PQ theory is used for reference current generation. The then obtained compensating currents are injected at point of common coupling for current disturbance mitigation. Simulations of MATLAB/SIMULINK environment of the present work shows the efficacy.  ***Keywords:*** Shunt Active Power Filter (SAPF), Intelligent Instantaneous Active and Reactive Power (IPQ) Theory, Hysteresis band current controller (HBCC), Variable Scaling Hybrid Differential Evolution (VSHDE) and Total Harmonic Distortion (THD), Power Quality (PQ). | | |

# Introduction *(Heading 1)*

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## Units

* Use either SI (MKS) or CGS as primary units. (SI units are encouraged.) English units may be used as secondary units (in parentheses). An exception would be the use of English units as identifiers in trade, such as “3.5-inch disk drive”.
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* The word “data” is plural, not singular.
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1. G. Eason, B. Noble, and I. N. Sneddon, “On certain integrals of Lipschitz-Hankel type involving products of Bessel functions,” Phil. Trans. Roy. Soc. London, vol. A247, pp. 529–551, April 1955. *(references)*
2. J. Clerk Maxwell, A Treatise on Electricity and Magnetism, 3rd ed., vol. 2. Oxford: Clarendon, 1892, pp.68–73.
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4. K. Elissa, “Title of paper if known,” unpublished.
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7. M. Young, The Technical Writer’s Handbook. Mill Valley, CA: University Science, 1989.
8. Electronic Publication: Digital Object Identifiers (DOIs):

Article in a journal:

1. D. Kornack and P. Rakic, “Cell Proliferation without Neurogenesis in Adult Primate Neocortex,” Science, vol. 294, Dec. 2001, pp. 2127-2130, doi:10.1126/science.1065467.

Article in a conference proceedings:

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