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| Book Name: | [Engineering Research: Perspectives on Recent Advances](https://www.bookpi.org/bookstore/product/engineering-research-perspectives-on-recent-advances-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_4054** |
| Title of the Manuscript:  | **Medium-Voltage Testbed for Comparing Advanced Power Line Sensors vs. Measurement Transformers with Electrical Grid Events** |
| Type of the Article | **Book chapter** |

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| PART 1: Comments |
|  | Reviewer’s comment | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | Comparing sophisticated power line sensors to conventional potential and current transformers (PT/CT) in a range of electrical grid scenarios is made easier by this publication. The results greatly advance our knowledge of how well sensors detect harmonic distortions and transient grid events, particularly in medium-voltage systems with distributed energy resource integration. This study helps to increase grid reliability and anomaly detection accuracy by addressing the drawbacks of conventional PT/CTs and suggesting innovative testbed approaches. For the benefit of utilities, researchers, and the larger smart grid community, it provides a basis for standardising sophisticated sensor technology. |  |
| **Is the title of the article suitable?****(If not please suggest an alternative title)** | The current title, **"Medium-Voltage Testbed for Comparing Advanced Power Line Sensors vs. Measurement Transformers with Electrical Grid Events,"** is descriptive and gives a clear idea about the scope of the manuscript. |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | The abstract would benefit from a concluding sentence that highlights the broader implications of the study's findings. For example, you could mention how the results could influence the adoption of alternative sensors in the power grid or how the comparison may lead to the development of testing standards for advanced sensors. |  |
| **Is the manuscript scientifically, correct? Please write here.**  | **Yes** |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.****-** | Ensure that all cited standards are the latest available versions, such as any updates beyond **IEEE Std C57.13-2016** and **IEEE Std 1159-2019**.Overall, the reference list is solid but could benefit from a few updates and more recent works, especially to ensure the discussion on modern sensors and grid technologies is as relevant as possible. |  |
| Is the language/English quality of the article suitable for scholarly communications? | Yes |  |
| Optional/General comments | ****Introduction and Literature Context****1. **State Research Gap**: Clearly state the shortcomings of previous research on PT/CT and OPLS, especially the absence of testing guidelines, and highlight how this study develops sensor technology in practical settings.

****Equations****1. **Clarity and Consistency**: To make all equations easier to read, make them more consistent, clear, and formatted. Provide a section on "Nomenclature" that explains variables, their units, and their physical meanings.
2. **Equation Justification**: Clearly state the assumptions utilised for signal analysis by including explanations or references for important equations (such as THD, crest factor, and harmonic limitations).

****Technical Concepts****1. **Explain OPLS Functionality**: Provide a subchapter that, with the help of pertinent literature, describes the design, advantages, and working principles of OPLS in comparison to PT/CT.
2. **Real-World Testing Challenges**: Discuss the challenges of outdoor testing, such as weather and electromagnetic interference, and describe how these were mitigated.

****Experimental Setup****1. **Calibration and Validation**:Give a thorough, step-by-step explanation of the calibration and validation procedures used for the testbed's components (such as sensors and amplifiers), citing particular tools and setups..
2. **Testbed Clarity**: Divide the medium-voltage testbed into more manageable chunks using extra diagrams or sub-figures, emphasising important parts and how they work together.

****Transient Scenarios and Results****Emphasise Important Findings: To clearly highlight important trends, such as the variations in performance between OPLS and PT/CT during particular occurrences, use text and notes.  |  |

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| **PART 2:**  |
|  | **Reviewer’s comment** | **Author’s comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?**  | *(If yes, Kindly please write down the ethical issues here in details)* |  |

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| **Reviewer Details:** |
| Name: | **Arathi.P.B** |
| Department, University & Country | **Ballari Institute of Technology and Management, India** |