

**LEMBAR**  
**HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW***  
**KARYA ILMIAH : JURNAL ILMIAH**

Judul Jurnal Ilmiah (Artikel) : Pre and post Mount Merapi eruption of free air anomaly in 2010  
 Nama/ Jumlah Penulis : 4 Orang  
 Status Pengusul : Penulis pertama/ ~~Penulis ke~~ / Penulis Korespondensi \*\*  
 Identitas Jurnal Ilmiah : a. Nama Jurnal : International Journal of Physical Sciences and Engineering  
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Semarang, 8 Maret 2023

Reviewer 1

Reviewer 2



Prof. Dr. Rahmat Gernowo, M.Si  
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 Bidang Ilmu: Fisika



Dr. Drs. Catur Edi Widodo, M.T.  
 NIP. 196405181992031002  
 Unit Kerja: FSM Universitas Diponegoro  
 Bidang Ilmu: Fisika

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Semarang, 8 Maret 2023

Reviewer 1



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Unit Kerja : Fakultas Sains dan Matematika

Bidang Ilmu: Fisika

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| c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%) | 9                                                    |                                                    |                                                          | 7.9                        |
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| <b>Total = (100%)</b>                                             | <b>30</b>                                            |                                                    |                                                          | <b>27.5</b>                |
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**2. Ruang lingkup dan kedalaman pembahasan:**

Substansi artikel sesuai dengan ruang lingkup jurnal (**International Journal of Physical Sciences and Engineering**). Kedalaman pembahasan cukup baik meliputi kontur topografi sebelum dan sesudah gunung merapi meletus pada tahun 2010

**3. Kecukupan dan kemutakhiran data/informasi dan metodologi:**

Data-data hasil penelitian sudah menunjukkan ada kebaruan informasi. Terdapat kesesuaian pustaka dengan tema penelitian dan sumber pustaka rata-rata relative baru, sehingga aspek keterbaruannya cukup baik

**4. Kelengkapan unsur dan kualitas terbitan:**

Jurnal ini tergolong jurnal internasional (Editorial board lebih dari 4 negara, Kontributor lebih dari 2 negara). Terindeks di Crossref. Index similarity = 0%. Unsur dan kualitas terbitan cukup baik gambar dan symbol jelas terbaca

Semarang, 8 Maret 2023

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## Challenges and Technical Requirements for Integration of Renewable Energy Sources in Cuban Electric System



Miguel Castro Fernandez <sup>a</sup>, Miriam Vilaragut Lanes <sup>b</sup>, Miriam Lourdes Filgueiras Sains de Rozas <sup>c</sup>, Ariel Santos Fuentefria <sup>d</sup>, Maria Rodriguez Gamez <sup>e</sup>

Article history: Received 10 April 2018, Accepted: 25 August 2018, Published: 11 September 2018

### Correspondence Author <sup>a</sup>



### Keywords

*Distributed generation;*

*Microgrids;*

*Renewable energy*

*sources;*

*Sustainable development;*

*Weather conditions;*

### Abstract

The decision of the Cuban Government to massively introduce Renewable Energy Sources (RES) as a way to change the energy matrix, and in particular, the electricity matrix, is presented as an opportunity to introduce not only sources of energy friendly with the environment, but also make the contributions that, without limiting the development of the country, respond to the UN Millennium Development Goals (UNMDG). However, the large-scale use of RESs in an electrical system such as Cuba, isolated and not interconnected to other systems, can have a group of challenges that must be taken into consideration when it is exploited, since it does not incorporate only new technologies, some of which depend on weather conditions such as solar, wind and hydro technology for the production of electricity, but allow us to think about the introduction of emerging technologies that can increase the penetration of RES in the electrical system and introduce new management concepts, both territorially and nationally. The present work reflects on this, from some experiences that have been analyzed in different research works carried out at CIPEL, plus other international experiences.

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## Packaging Sixto Duran Ballen and the Dam La Esperanza



Gloria Santana Parrales <sup>a</sup>, Beatriz Irene Caballero Giler <sup>b</sup>, Maria Shirlendy Guerrero Alcivar <sup>c</sup>

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### Correspondence Author <sup>a</sup>



### Keywords

*Dams;  
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Indicators;  
Preventive measures;  
Reservoirs;*

### Abstract

The dam is a reservoir that stores about 450,000,000 cubic meters of water, has multiple purposes allowing flood control, produces irrigation water, for human consumption and shrimp farming in the area center of the province of Manabí. The first studies for the construction of the dam were carried out in the years 1970 to 1975 as a result of the hydrological/economic feasibility plan of the Province of Manabí, and of the integral hydro-agricultural area of the Carrizal Chone Basin. After several preliminary studies with different international firms and with changes of designs in 1992, the Dragados and Construcciones SA Company was in charge of the construction of what is now the Manabí water project. It is located in the parish of Quiroga approximately 12 kilometers from the cantonal canton of Bolívar Canton, Calceta, with an extension of 2,500 hectares, with a construction area of 120 hectares and will allow irrigation of 17,000 hectares of the central area of Manabí. The objective of the work is to make an analysis of the construction of the La Esperanza dam. For this, the logical historical method was used, as well as the bibliography search to know the historical construction of the dam, as well as the observation method.

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