

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

Judul Karya Ilmiah (Artikel) : The Nuclear Power Plant Concept with Ball in Bowl Design
 Jumlah Penulis : 4 orang
 Status Pengusul : Penulis pertama/ ~~Penulis ke-~~ ~~Penulis Korespondensi~~ **
 Identitas Jurnal Ilmiah : a. Nama prosiding : KnE Energy
 b. Nomor ISSN : 2413-5453
 c. Tahun terbit, tempat pelaksana : 2017, Indonesia
 d. Penerbit : KnowledgeE Publishing
 e. Alamat web jurnal : <https://knepublishing.com/index.php/KnE-Energy/article/view/357>
 f. Terindeks di ~~Scimagojr/Scopus atau~~
~~di....**~~
 Kategori Publikasi Jurnal : Prosiding Forum Ilmiah Internasional **
 Ilmiah (beri ✓ pada kategori yang tepat) Prosiding Forum Ilmiah Nasional

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Reviewer		Nilai Rata-rata
	Reviewer I	Reviewer II	
a. Kelengkapan unsur isi jurnal (10%)	1	2	1,5
b. Ruang lingkup dan kedalaman pembahasan (30%)	5	6	5,5
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	5	5	5
d. Kelengkapan unsur dan kualitas penerbit (30%)	5	5	5
Total = (100%)			17
Nilai untuk Pengusul : 60% x 17 = 10,2			

Semarang, 27 Mei 2021

Reviewer 1



Prof. Dr. Drs. Muhammad Nur, DEA
 NIP. 195711261990011001
 Bidang ilmu/Unit kerja : Fisika/Fakultas Sains dan Matematika

Reviewer 2



Prof. Dr. Kusworo Adi, S.Si., M.T.
 NIP. 197203171998021001
 Bidang ilmu/Unit kerja : Fisika/Fakultas Sains dan Matematika

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

Judul Karya Ilmiah (Prosiding) : The Nuclear Power Plant Concept with Ball in Bowl Design
 Nama/ Jumlah Penulis : 4 orang
 Status Pengusul : Penulis ke-1
 Identitas Prosiding : a. Judul Prosiding : KnE Energy
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 Alamat Artikel : <https://knepublishing.com/index.php/KnE-Energy/article/view/357/954>
 f. Terindeks di (jika ada) : -

Kategori Publikasi Makalah : *Prosiding* Forum Ilmiah Internasional
 (beri ✓ pada kategori yang tepat) *Prosiding* Forum Ilmiah Nasional

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal Prosiding		Nilai Akhir Yang Diperoleh
	Internasional <input checked="" type="checkbox"/>	Nasional <input type="checkbox"/>	
a. Kelengkapan unsur isi prosiding (10%)	2		1
b. Ruang lingkup dan kedalaman pembahasan (30%)	6		5
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	6		5
d. Kelengkapan unsur dan kualitas terbitan /prosiding (30%)	6		5
Total = (100%)	20		16
Nilai Pengusul = 60% x 16 = 9,6			

Catatan Penilaian Paper oleh Reviewer :

- Kelengkapan unsur isi jurnal:**
Pendahuluan cukup baik dan menggambarkan pentingnya penelitian. Artikel telah ditulis sesuai dengan KnE Energy
- Ruang lingkup dan kedalaman pembahasan:**
Ruang lingkup bahasan sudah luas, hasil dan pembahasan sudah didiskusikan. Diskusi belum melibatkan hasil penelitian dari peneliti lain.
- Kecukupan dan kemutakhiran data/informasi dan metodologi:**
Referensi sudah mutakhir. Metoda dapat dipahami oleh mereka yang ahli dibidang ini dan bisa direflikasi. Diskusi belum melibatkan hasil penelitian dari peneliti lain. Artikel baru menunjukkan metoda yang digunakan tanpa membandingkan hasilnya dengan peneliian sebelumnya
- Kelengkapan unsur dan kualitas terbitan:**
Penerbitan sudah baik, sesuai dengan KnE Energy sebagai journal Internasional.

Semarang, 10 Juni 2022
 Reviewer 1



Prof. Dr. Drs. Muhammad Nur, DEA
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 Unit Kerja : Fisika
 Bidang Ilmu: Fakultas Sains dan Matematika

**LEMBAR
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Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal Prosiding		Nilai Akhir Yang Diperoleh
	Internasional <input checked="" type="checkbox"/>	Nasional <input type="checkbox"/>	
a. Kelengkapan unsur isi prosiding (10%)	2		2
b. Ruang lingkup dan kedalaman pembahasan (30%)	6		6
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	6		5
d. Kelengkapan unsur dan kualitas terbitan /prosiding (30%)	6		5
Total = (100%)	20		18
Nilai Pengusul = 60% x 18 = 10,8			

Catatan Penilaian artikel oleh Reviewer :

1. Kesesuaian dan kelengkapan unsur isi jurnal:

Isi jurnal sesuai dan lengkap dari komponen-komponen yang ada abstrak, pendahuluan, prosedur eksperimen, hasil dan pembahasan, lalu kesimpulan dan daftar pustaka yang digunakan.

2. Ruang lingkup dan kedalaman pembahasan:

Paper ini membahas tentang Ball in Bowl yang merupakan suatu konsep bangunan PLTN, dengan sistem modifikasi aliran angin, berguna untuk meminimalkan penyebaran zat radioaktif yang dilepaskan saat terjadi kebocoran nuklir. Konsep reaktor nuklir dengan desain Ball in Bowl dapat diimplementasikan dan berpotensi menjadi konsep pembangkit listrik tenaga nuklir terbaru.

3. Kecukupan dan kemutakhiran data/informasi dan metodologi:

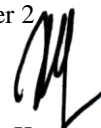
Data-data serta metodologi yang digunakan dalam penelitian ini sudah cukup baik dan mutakhir serta dilengkapi dengan referensi terkini dengan kategori sampai dengan 5 tahun sebanyak 3.

4. Kelengkapan unsur dan kualitas terbitan:

Karya ini diterbitkan dalam prosiding internasional oleh KnowledgeE Publishing dengan unsur-unsur yang lengkap serta kualitas yang baik.

Semarang, 6 Juli 2022

Reviewer 2



Prof. Dr. Kusworo Adi, S.Si., M.T.

NIP. 197203171998021001

Unit Kerja : Fisika

Bidang Ilmu: Fakultas Sains dan Matematika



Sertifikat

Diberikan kepada

Ainul Ibnu Khotob

yang telah berpartisipasi dalam

SEMINAR KESELAMATAN NUKLIR

Penguatan Pengawasan untuk Ekosistem Ketenaganukliran yang Harmonis
pada Tanggal 25 Juni 2014 di Jakarta

Sebagai

Penyaji

Diselenggarakan oleh:

BADAN PENGAWAS TENAGA NUKLIR

Kepala

Badan Pengawas Tenaga Nuklir

Prof. Dr. Jazi Eko Istiyanto, M.Sc.

Jakarta, 25 Juni 2014

Ketua Panitia

Rini Suryanti, ST, M.Si.

SEMINAR KESELAMATAN NUKLIR

Jakarta, 25 Juni 2014

PENGUATAN PENGAWASAN UNTUK
EKOSISTEM KETENAGANUKLIRAN
YANG HARMONIS



Diselenggarakan oleh :

Badan Pengawas Tenaga Nuklir

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Fax. (021) 638 582 75

E-mail : seminar@bapeten.go.id

Kepada Yth.
Bapak/Ibu/Saudara:
Ainul Ibnu Khotob
FMIPA UNDIP

Panitia Seminar Keselamatan Nuklir,
Badan Pengawas Tenaga Nuklir (BAPETEN)
Jakarta, mengundang Bapak/Ibu/Saudara
pada:

Hari : Rabu
Tanggal : 25 Juni 2014
Pukul : 08.00 WIB - Selesai
Tempat : Bella Cassa Grande
Hotel Merlynn Park
Jl. KH.Hasyim Ashari 29-31
Jakarta Pusat

Sebagai :
Penyaji Sidang Oral

Dengan makalah Bapak/Ibu/Saudara yang
berjudul :

***Konsep PLTN Dengan Desain Ball in
Bowl***

Atas perhatian dan kehadirannya kami
mengucapkan terima kasih.

Panitia Penyelenggara
Ketua,

Ttd

Rini Suryanti, M.Si

Keterangan:

1. Presentasi oral disajikan dalam bentuk powerpoint untuk penyajian 10 menit.
2. Presentasi poster disajikan dalam bentuk digital printing full colour ukuran A2 (untuk satu makalah maksimal 2 lembar), dengan ukuran huruf dan gambar disesuaikan dengan ukuran poster.
3. Soft file powerpoint atau poster diserahkan kepada panitia pada saat registrasi tanggal 25 Juni 2014 pukul 08.00 WIB – 08.30 WIB.
4. Makalah dan poster yang sudah diserahkan menjadi hak Panitia Seminar Keselamatan Nuklir 2014.
5. Penyaji oral dan poster wajib berpakaian rapi dan berdasar bagi penyaji pria.
6. Peserta penyaji poster yang datang terlambat (melewati batas registrasi), maka dipersilakan untuk memasang sendiri poster di tempat yang telah disediakan sesuai dengan kode makalah poster yang diberikan oleh panitia.
7. Peserta penyaji oral dan poster yang tidak hadir pada waktu pelaksanaan, maka makalahnya tidak dimasukkan ke dalam Prosiding Seminar Keselamatan Nuklir.
8. Undangan ini harap dibawa pada saat registrasi dan hanya berlaku untuk nama yang tercantum dalam undangan ini.



No : 024/V/2014/RH

Jakarta, 19 Mei 2014

Hal : Poster Ilmiah Indonesia EBTKE-ConEx 2014

Kepada yth :
Bp/Ibu/Sdr/i Ainul Ibnu Khotob
Di Tempat

Dengan ini, kami memberitahukan bahwa berdasar penilaian *Scientific Committee* Indonesia EBTKE-ConEx 2014, poster ilmiah Bapak/Ibu dinyatakan **DITERIMA** dan akan dipaparkan di ruang *conference/ exhibition* Indonesia EBTKE-ConEx 2014, tanggal 4-6 Juni 2014, di Jakarta Convention Center.

Dengan ini, kami mengucapkan selamat dan semoga sukses dalam kegiatan serta seleksi tahap selanjutnya. Dengan tujuan memudahkan komunikasi, kami berharap Bapak/Ibu menggunakan Nomor Manuskrip yang telah ditetapkan untuk berkomunikasi dengan panitia/ Sekretariat *Scientific Committee*. Terlampir pula, kami kirimkan *second circular call papers/ poster* EBTKE-ConEx 2014 dan surat Ketua Panitia Indonesia EBTKE-ConEx 2014 terkait hal tersebut.

Atas perhatian Bapak/Ibu, kami sampaikan ucapan terima kasih, dan sampai jumpa di Jakarta Convention Center, tanggal 4 Juni 2014.

Salam hormat,

Roy Hendroko
Sekretaris Scientific Committee

Conference and Exhibition
Indonesia - New and Renewable Energy and Energy Conservation
(The 3rd Indo EBTKE-ConEx 2014)

PREFACE



The 3rd Indo EBTKE-ConEx 2014 is an annual event organized by the Directorate General of New and Renewable Energy and Energy Conservation (DG-EBTKE), Ministry of Energy and Mineral Resources of the Republic of Indonesia, in cooperation with the Indonesian Renewable Energy Society (IRES) and Quad Event Management. The event was held on 4–6 June, 2014 at the Jakarta Convention Center (JCC), with the theme “Time to Deliver Clean Energy for the Nation”. The theme was created to revive the commitment to deliver clean energy, which is new and renewable energy and energy conservation, for the nation. It is also relevant to the Indonesian energy security and sustainability roadmap as stated in the national energy policy. Indo EBTKE-ConEx 2014 was officially opened by Prof. Dr. Boediono, Vice President of the Republic of Indonesia. This event was attended by a total of 5,009 visitors.

The 3rd Indo EBTKE-ConEx 2014 provided an excellent venue to identify opportunities in regional Indonesia that are challenging to reach. It also provided an important opportunity to share knowledge, understand challenges in renewable energy, build partnerships and strengthen cooperation among key stakeholders.

The aims of Indo EBTKE-ConEx 2014 were to:

- Increase public awareness of new and renewable energy and energy conservation (“EBTKE”) concept
- Promote latest products and technology of EBTKE
- Provide platform for EBTKE key stakeholders (governments, private sectors, and academics) to network and increase collaboration to achieve Indonesia’s EBTKE target
- Stimulate growth of new entrepreneurs in EBTKE as a sector, also increase the number and capacity of EBTKE projects significantly in the near future.

The conference presented papers from 40 international and Indonesian scientists, technologists, researchers, academicians, government officials, practitioners and the private sector. Presentation material from the conference can be downloaded at <http://www.indoebtke-conex.com/detail.php?id=3&cat=3>

The exhibition displayed and demonstrated various technologies on EBTKE at 27 booths in the Jakarta Convention Center (<http://www.indoebtke-conex.com/best-booth.php>). Education was carried out in three ways:

- **Training on new and renewable energy**, including biogas, biomass energy, solar energy / photovoltaic, mini and small hydropower, was conducted by GIZ-Indonesia and the USAID Indonesia-Clean Energy Development (ICED Project); and training on energy efficiency was conducted by the United Kingdom Climate Change Unit (UKCCU).
- An **essay contest** on new and renewable energy and energy conservation for students from junior high schools, senior high schools and undergraduate higher education produced 123 essays (<http://www.indoebtke-conex.com/writing-competition.php>).
- A **scientific poster competition** on new and renewable energy and energy conservation for graduate students, researchers, lecturers / academicians, technologists, and practitioners of new and renewable, and energy conservation produced 74 posters (<http://www.indoebtke-conex.com/paper-poster-competition.php>).

A call for technical papers elicited 131 extended abstracts and, following a thorough peer review process, 77 manuscripts were selected for presentation in Indo EBTKE-ConEx 2014 (<http://www.indoebtke-conex.com/detail.php?id=4&cat=3> and http://www.indoebtke-conex.com/data_proceeding.php). After selection and review by the scientific committee, 50 selected manuscripts were chosen for publication in Elsevier’s Journal, *Energy Procedia*.

We wish to convey our utmost appreciation to all authors and reviewers for their high quality contributions; to all participants/visitors for their participation; and to committees for their strong support throughout the Indo EBTKE-ConEx 2014.

Last, but not least, we hope Indo EBTKE-ConEx 2014 provided an interesting program and served as an excellent forum for innovative and technical discussions. We look forward to seeing you all at Indo EBTKE-ConEx 2015.

Sincerely yours,



Salis Aprilian
Indo EBTKE-ConEx 2014
Chairman of Organizing Committee

Scientific Committee/Editorial & Peer Review Board Indo EBTKE-ConEx 2014

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- Maritje Hutapea, Director Energy Conservation DG-EBTKE, Ministry of Energy and Mineral Resources of the Republic of Indonesia.
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- Petrus Panaka, Independent Researcher and The Indonesian Renewable Energy Society (IRES/METI).
- Praptiningsih Gamawati Adinurani, Faculty of Agrotechnology, Madiun Merdeka University, Indonesia.
- Rakoto Malala Andoniaina, Centre de Formation et d'Application du Machinisme Agriculture (CFAMA), Madagascar.
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- Soni Solistia Wirawan, Centre for Energy Technology, Agency for Assessment and Application of Technology, Indonesia.
- Surya Dharma, Energy Teknik Committee, Indonesia National Research Council.
- Tatas HP Brotosudarmo, Ma Chung Research Center for Photosynthetic Pigments, Malang, Indonesia.
- Tjut Devi Silvana, GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) Indonesia.
- Wisnu Ali Martono, Natural Resources Economist, Agency for Assessment and Application of Technology, Indonesia.
- Zane Vincevica-Gaile, Department of Environmental Science, University of Latvia, European Union.

Conference and Exhibition Indonesia - New, Renewable Energy and Energy Conservation
(The 3rd Indo-EBTKE ConEx 2014)

Oil Content and Potential Region for Cultivation Black Soybean in Java as Biofuel Alternative

Chindy Ulima Zanetta^{a*}, Budi Waluyo^b, Meddy Rachmadi^c, Agung Karuniawan^c

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Abstract

Oil content from black soybean (*Glycine max* (L.) Merr.) seed is potential as an alternative renewable energy source. The objectives of this study were to identify content of seven black soybean genotypes and to analysis stability of genotypes, widely adapted or specifically adapted. Oil content was determined using proximate analysis and observation procedure base on AOAC standard. Field experiments were conducted at ten locations across the island of Java, Indonesia i.e. Banyuwangi, Bogor, Cianjur, Cirebon, Jatinangor 1, Jatinangor 2, Madiun, Majalengka, Ngawi, and Yogyakarta. The experimental design was arranged in randomized complete block design with four replication at each environment was employed. The genotype main effect plus genotype-by-environment interaction biplots were applied to analyze and visualize pattern of the interaction component. The result elucidated that black soybean genotype that have high yield is KA 6 ($2.21 \text{ t} \cdot \text{ha}^{-1}$), and potential to produce oil in amount of $445.65 \text{ L} \cdot \text{ha}^{-1}$. GGE biplot identified that KA 6 adaptive to be cultivated in the regions of Cirebon, Madiun and Banyuwangi, and environment similar to the three regions. The ideal environment in terms of being the most representative of the overall environments is Cianjur.

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Peer-review under responsibility of the Scientific Committee of EBTKE ConEx 2014

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Conference and Exhibition Indonesia - New, Renewable Energy and Energy Conservation,
[The 3rd Indo EBTKE ConEx 2014]

Measurement of the Influence of Roof Pitch to Increasing Wind Power Density

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^aResearch Centre for Biomaterials, Indonesian Institute of Sciences (LIPI), Jl. Raya Bogor km.46, Cibinong, Bogor 16911, Indonesia

Abstract

The wind flows on the rooftop house in Semarang, Indonesia past were examined in a Computational Fluid Dynamics (CFD) analysis and indicate best performance for wind energy power density. The rooftop pitches of house can have huge impact on increasing wind power density. This paper deals with the study to increase wind power density of micro-wind turbine located on the rooftop house by design the roof pitch. CFD was performed to evaluate the performance of wind flow around the roof pitch of housing at different angle (20°, 30°, 40° and 50°) based on wind climate data analysis. The results showed that a pitched roof of 30° has the best wind potential density than another for same base house model height.

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Peer-review under responsibility of the Scientific Committee of EBTKE ConEx 2014

Keywords: CFD; roof pitch; wind flow; wind power density

Nomenclature

U	wind velocity ($m \cdot s^{-1}$)	M	mega (10^6)
U_{ref}	wind velocity reference ($m \cdot s^{-1}$)	atsl	above the sea level
Z	the gradient height (m)	yr	years
Z_{ref}	the gradient height reference (m)	α	power law exponent

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