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

Judul Jurnal Ilmiah (Artikel) : An artifact-free thyroid shield in CT examination: a phantom study
 Nama/ Jumlah Penulis : 9 Orang
 Status Pengusul : Penulis pertama/~~Penulis ke-~~ / Penulis Korespondensi **
 Identitas Jurnal Ilmiah : a. Nama Jurnal : Biomedical Physics & Engineering Express
 b. Nomor ISSN : 2957-1976
 c. Vol, No., Bln Thn : Vol 6 No 1, Januari 2020 Hal 1-8
 d. Penerbit : IOP Publishing Ltd.
 e. DOI artikel (jika ada) : 10.1088/2057-1976/ab6ed1
 f. Alamat web jurnal : <https://iopscience.iop.org/article/10.1088/2057-1976/ab6ed1>
 Alamat Artikel : berbayar
 g. Terindex : Scopus (Q3, SJR 0,33)

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d. Kelengkapan unsur dan kualitas penerbit (30%)	11,90	12,00	11,95
Total = (100%)			38,90
Nilai untuk Pengusul : 60% x 38,90 = 23,34			

Semarang, 8 Maret 2023

Reviewer 1

Reviewer 2



Prof. Dr. Rahmat Gernowo, M.Si
 NIP. 196511231994031003
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 Bidang Ilmu: Fisika



Prof. Dr. Kusworo Adi, S.Si., M.T.
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d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	12			11,90
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Nilai Pengusul = 60% x 39,8 = 23,88				

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2. Ruang lingkup dan kedalaman pembahasan:

Pembahasan dengan menggunakan metoda yang diusulkan dalam artikel cukup komprehensif. Diskusi telah dilakukan dengan para peneliti lain melalui referensi yang disitasi. Sebuah artikel yang menarik.

3. Kecukupan dan kemutakhiran data/informasi dan metodologi:

Data dan referensi mutakhir, termasuk referensi dari kajian yang dilakukan oleh peneliti. Metoda standar dibidangnya dan akan bisa direfleksikan oleh peneliti lain sebidang.

4. Kelengkapan unsur dan kualitas terbitan:

Penerbitan sudah sangat bagus tertata rapi **Biomedical Physics & Engineering Express**, sebuah jurnal *Scopus* Q3, SJR 0,33, nilai maksimum 40

Semarang, 1 Maret 2023

Reviewer 1



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Unit Kerja : Fisika

Bidang Ilmu: Fakultas Sains dan Matematika

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	Internasional ☒	Nasional Terakreditasi ☐	Nasional Tidak Terakreditasi ☐	
a. Kelengkapan unsur isi jurnal (10%)	4			4,00
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c. Kecukupan dan kemitahiran data/informasi dan metodologi (30%)	12			11,00
d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	12			12,00
Total = (100%)	40			38,00
Nilai Pengusul = 60% x 38,00 = 22,80				

Catatan Penilaian artikel oleh Reviewer :

- Kelengkapan unsur isi jurnal:** Penulisan artikel sudah baik dan mengikuti standard penulisan artikel di jurnal, yaitu Abstract, Introduction, Materials and Method, Result and Discussion, Conclusions, Acknowledgement and References. Substansi artikel sesuai bidang ilmu pengusul.
- Ruang lingkup dan kedalaman pembahasan:** Lingkup bahasan dari artikel ini adalah bidang fisika. Pembahasan cukup baik yaitu mengevaluasi pengurangan dosis dan kualitas gambar yang dihasilkan dari pelindung tiroid sintetik baru berdasarkan komposit karet silikon (SR)–timbal (Pb) dan membandingkannya dengan kertas tungsten (WP) dan pelindung tiroid Radibabarrier dalam pemeriksaan CT leher. Kedalaman pembahasan baik.
- Kecukupan dan kemitahiran data/informasi dan metodologi:** Informasi yang disajikan cukup baru dan hasil yang diperoleh memuat substansi orisinil dengan aspek aplikasi yang penting. Sumber gagasan penulis untuk artikel ini banyak dan komprehensif. Dari 40 referensi yang dipakai terdapat 9 paper yang lebih dari 10 tahun terakhir (out of date). Metodologinya baik dan penulisannya terstruktur.
- Kelengkapan unsur dan kualitas terbitan:** Artikel dimuat di Jurnal Biomedical Physics & Engineering Express, pada Vol 6 No 1, Januari 2020 Hal 1-8. Diterbitkan oleh IOP Publishing Ltd. Journal terindeks Scopus (Q3, SJR 0,44).

Semarang, 1 Maret 2023
 Reviewer 2



Prof. Dr. Kusworo Adi, S.Si., M.T.
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An artifact-free thyroid shield in CT examination: A phantom study

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Abstract

This study was to evaluate dose reduction and resulting image quality of a new synthetic thyroid shield based on silicon rubber (SR)-lead (Pb) composites and compare to tungsten paper (WP) and a Radibarrier thyroid shields in CT examination of the neck. The synthetic SR-Pb thyroid shield had a Pb percentage from 0 to 5 wt% and a thickness of 0.6 cm. Scanning on the neck of an anthropomorphic phantom was performed with and without the SR-Pb, WP, and Radibarrier thyroid shields. The thyroid shields were placed directly on the neck surface. The thyroid dose was measured using radiophotoluminescence (RPL) detectors. Image quality was characterized by consistency of the Hounsfield unit (HU) on the areas of anterior, posterior and lateral of the neck phantom. Detailed evaluation of the

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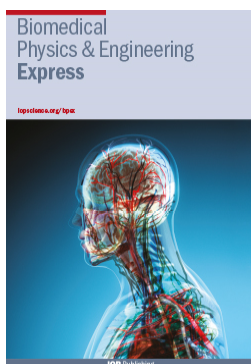
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PAPER

Long-term Inter-protocol kV CBCT image quality assessment for a ring-gantry linac via automated QA approach

Jiayuan Peng^{1,2,3} , Hua Li³, Eric Laugeman³, Thomas Mazur³, Dao Lam³, Taoran Li⁴, Baozhou Sun³ , Weigang Hu^{1,2}, Lei Dong⁴, Geoffrey D Hugo³  Show full author list

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PAPER

Portable electronic device to assess the human balance using a minimum number of sensors

Ángel Gabriel Estévez-Pedraza¹ , Rigoberto Martínez-Méndez¹ , Otniel Portillo-Rodríguez¹, Jorge Rodríguez-Arce¹ and Lorena Parra-Rodríguez²

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Abstract

Objective: This paper presents the design and development of a new electronic portable device to assess the human balance of the human body during standing, using a minimal number of sensors and peripheral components. This device is aimed to evaluate human balance in environments outside of specialized laboratories, such as small clinics and therapy offices. **Approach:** The design is based on previous designs using three or more resistive force sensors attached to the feet, however in the present work, the sensors were attached on an adjustable platform, to fit several sizes of feet. Furthermore, all the signal acquisition, process, storage and display are executed by an embedded electronic system, thus avoiding the use of computers and external peripherals. A new method to compute the CoP using only two sensors per foot was developed and tested in a group of 50 university students, (17 women and 33 men), 26.04 ± 4.94 years. **Main results:** It was developed a portable electronic system to measure the trajectory of the CoP and to calculate the indexes values derived from it. The system is capable to discriminate between measuring situations (open and

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