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

Judul Artikel Ilmiah : Experimental Study of Vibration of Prototype Auditory Membrane
 Nama Penulis : **Harto Tanujaya**, Satoyuki Kawano
 Jumlah Penulis : 2 (dua)
 Status Pengusul : Penulis Pertama
 Identitas Buku Ilmiah : a. Nama Jurnal : Applied Mechanics and Materials
 b. Nomor ISSN : 1662-7482
 c. Vol. No. Bln. Th. : Volume 493, Januari 2014
 d. Penerbit : Trans Tech Publications, Switzerland
 e. Jumlah halaman : 6 halaman
 f. Alamat Web Jurnal : <https://www.scientific.net/AMM.493.372>
 g. DOI Artikel : <https://doi.org/10.4028/www.scientific.net/AMM.493.372>

Kategori Publikasi Buku Ilmiah (beri (√) pada kategori yang tepat)

Jurnal Ilmiah Internasional Bereputasi
 Jurnal Ilmiah Internasional
 Jurnal Ilmiah Nasional Terakreditasi
 Jurnal Ilmiah Nasional Tidak Terakreditasi
 Jurnal Ilmiah Terindex di DOAJ/CABI/COPERNICUS/Lainnya

Hasil Penilaian *Peer Review*

Komponen Yang Dinilai	Nilai Maksimal Jurnal Ilmiah (isi di kolom yang sesuai)					Nilai Akhir <i>peer</i> Yang Diperoleh
	Internasional Bereputasi	Internasional	Nasional Terakreditasi	Nasional Tidak Terakreditasi	Nasional Terindex DOAJ dll	
Kelengkapan dan kesesuaian unsur isi <i>prosiding</i> (10%)	90%x10% x 40					3,6
Ruang lingkup dan kedalaman pembahasan (30%)	92%x30% x 40					11,04
Kecukupan & kemutakhiran data/informasi dan metodologi (30%)	92%x30% x 40					11,04
Kelengkapan unsur & kualitas penerbit (30%)	95%x30% x 40					11,40
Nilai <i>peer</i> Maksimal (100%)	40					37,08
Kontribusi Pengusul; (nilai akhir <i>peer</i> x bobot penulis pertama = 37,08 x 60% = 22,248)						22,248
Komentar/Usulan <i>Peer Review</i> : (Terlampir hal. 2)	1. Tentang kelengkapan dan kesesuaian unsur; 2. Tentang ruang lingkup dan kedalaman pembahasan; 3. Kecukupan dan kemutakhiran data/informasi dan metodologi; 4. Kelengkapan unsur dan kualitas penerbit; 5. Indikasi Plagiasi; 6. Kesesuaian Bidang Ilmu: <i>Terlampir</i>					

Jakarta, 10.12. 2019
 Penilai I



(Prof. Dr. Ir. Agustinus Purna Irawan)
 NIDN/NIP : 0328087102 / 10398021
 Jabatan/Pangkat/Bidang Ilmu: Professor/IVC/Teknik Mesin
 Unit Kerja: Fakultas Teknik – Universitas Tarumanagara

<p>KOMENTAR PEER REVIEW</p>	<p>1. Tentang kelengkapan dan kesesuaian unsur:</p> <p>Artikel dengan judul Experimental Study of Vibration of Prototype Auditory Membrane, ditulis secara benar sesuai dengan standar penulisan artikel ilmiah yang memuat pendahuluan, metode/peralatan yang digunakan, pengambilan data dan data, analisa dan kesimpulan.</p> <p>2. Tentang ruang lingkup dan kedalaman pembahasan:</p> <p>Artikel dengan judul Experimental Study of Vibration of Prototype Auditory Membrane, membahas kasus studi eksperimental getaran Prototype Auditory Membrane dengan spesifik dan mudah dipahami.</p> <p>3. Kecukupan dan kemutakhiran data/informasi dan metodologi;</p> <p>Metodologi terstruktur dan jelas, data dan referensi yang diambil up to date.</p> <p>4. Kelengkapan unsur dan kualitas penerbit:</p> <p>Editorial board dan reviewer untuk Jurnal " Applied Mechanics and Materials " jelas dan terstruktur dan dapat diakses online. Penerbit Trans Tech Publications, Switzerland dapat dilacak melalui daring, bereputasi, terindeks oleh Scopus dan berimpact factor dan memenuhi syarat jurnal ilmiah internasional, Q3 (2014), SJR 0,11, dan H Index 28. Jurnal ber ISSN/ISBN.</p> <p>5. Indikasi Plagiasi:</p> <p>Artikel dengan judul Experimental Study of Vibration of Prototype Auditory Membrane yang diterbitkan oleh Trans Tech Publications, Switzerland dan dapat dibaca secara daring https://www.scientific.net/AMM.493.372 dan DOI https://doi.org/10.4028/www.scientific.net/AMM.493.372 tidak ditemukan indikasi plagiasi dengan tingkat kesamaan menggunakan software Turnitin sebesar 9 %.</p> <p>6. Kesesuaian Bidang Ilmu:</p> <p>Artikel tersebut membahas tentang studi eksperimental getaran Prototype Auditory Membrane dan ada Linieritas keilmuan dengan pengusul.</p>
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Jakarta, 18.12.2019
Penilai I



(Prof. Dr. Ir. Agustinus Purna Irawan)
NIDN/NIP : 0328087102 / 10398021
Jabatan/Pangkat/Bidang Ilmu: Professor/IVC/Teknik Mesin
Unit Kerja: Fakultas Teknik – Universitas Tarumanagara

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Komponen Yang Dinilai	Nilai Maksimal Jurnal Ilmiah (isi di kolom yang sesuai)					Nilai Akhir Yang Diperoleh
	Internasional Bereputasi	Internasional	Nasional Terakreditasi	Nasional Tidak Terakreditasi	Nasional Terindex DOAJ dll	
Kelengkapan dan kesesuaian unsur isi <i>prosiding</i> (10%)	4					3,76
Ruang lingkup dan kedalaman pembahasan (30%)	12					11,4
Kecukupan & kemutakhiran data/informasi dan metodologi (30%)	12					11,4
Kelengkapan unsur & kualitas penerbit (30%)	12					11,4
Total = 100%	40					37,96
Kontribusi Pengusul; (nilai akhir <i>peer</i> x bobot penulis pertama) = 37,96 x 60% = 22,776						22,776
Komentar/Usulan Peer Review:	1. Tentang kelengkapan dan kesesuaian unsur; 2. Tentang ruang lingkup dan kedalaman pembahasan; 3. Kecukupan dan kemutakhiran data/informasi dan metodologi; 4. Kelengkapan unsur dan kualitas penerbit; 5. Indikasi Plagiasi; 6. Kesesuaian Bidang Ilmu: <i>Terlampir</i>					

Jakarta, 14-11-2019
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 NIDN/NIP : 0114056705 / 10311009
 Jabatan/Pangkat/Bidang Ilmu: Lektor Kepala/IV/Teknik Mesin
 Unit Kerja: Fakultas Teknik – Universitas Tarumanagara

<p>KOMENTAR PEER REVIEW</p>	<p>1. Tentang kelengkapan dan kesesuaian unsur:</p> <p>Artikel Experimental Study of Vibration of Prototype Auditory Membrane, ditulis sesuai dengan kaidah penulisan artikel ilmiah yang meliputi pendahuluan, metode/alat, data dan analisa serta kesimpulan.</p> <p>2. Tentang ruang lingkup dan kedalaman pembahasan:</p> <p>Artikel Experimental Study of Vibration of Prototype Auditory Membrane, membahas kasus studi eksperimental getaran Prototype Auditory Membrane dengan kedalaman pembahasan yang spesifik.</p> <p>3. Kecukupan dan kemutakhiran data/informasi dan metodologi;</p> <p>Data yang diambil dan digunakan untuk analisa dan referensi tergolong baru dan mutakhir, dengan susunan metodologi yang baik.</p> <p>4. Kelengkapan unsur dan kualitas penerbit:</p> <p>Editor dan reviewer Jurnal " Applied Mechanics and Materials "tersusun dan terorganisir, ber ISSN/ISBN dan dapat diakses online. Penerbit Trans Tech Publications, Switzerland dapat dilacak melalui daring, bereputasi, terindeks oleh Scopus dan berimpact factor dan memenuhi syarat jurnal ilmiah internasional, Q3 (2014), SJR 0,11, dan H Index 28.</p> <p>5. Indikasi Plagiasi:</p> <p>Artikel Experimental Study of Vibration of Prototype Auditory Membrane diterbitkan oleh Trans Tech Publications, Switzerland dan dapat dibaca secara daring https://www.scientific.net/AMM.493.372 dan DOI https://doi.org/10.4028/www.scientific.net/AMM.493.372 tidak ditemukan indikasi plagiasi.</p> <p>6. Kesesuaian Bidang Ilmu:</p> <p>Artikel tersebut membahas tentang studi eksperimental getaran Prototype Auditory Membrane dan ada kesesuaian dan linieritas keilmuan dengan pengusul.</p>
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Jakarta, 14-11-2019

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(Dr. Ir. M. Sobron Yamin L., M.Sc.)

NIDN/NIP : 0114056705 / 10311009

Jabatan/Pangkat/Bidang Ilmu: Lektor Kepala/IV/Teknik Mesin

Unit Kerja: Fakultas Teknik – Universitas Tarumanagara

Applied Mechanics and Materials

Country [Switzerland - !\[\]\(830769b31eeeaca920791081939ff8ba_img.jpg\) SIR Ranking of Switzerland](#)

Subject Area and Category [Engineering](#)
[Engineering \(miscellaneous\)](#)

Publisher [Scitec Publications Ltd.](#)

Publication type [Book Series](#)

ISSN [16609336](#)

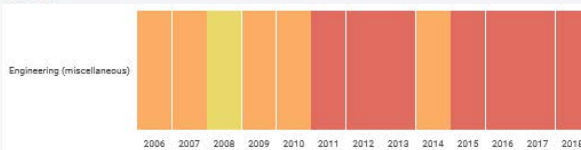
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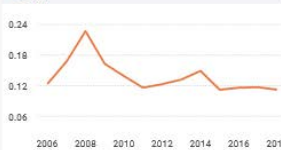
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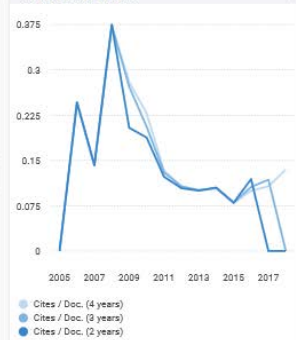
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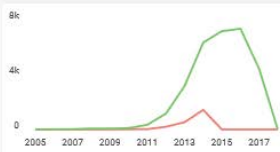
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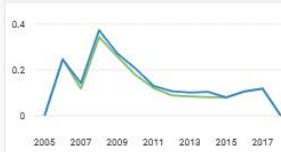
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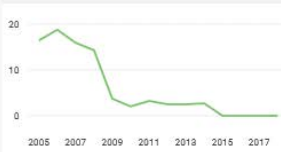
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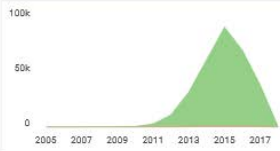
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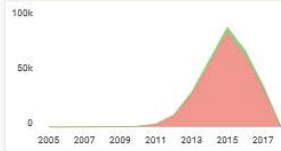
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Experimental Study of Vibration of Prototype Auditory Membrane

Harto Tanujaya^{1, a} and Satoyuki Kawano²

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Keywords: Auditory membrane, cochlea, PVDF, pulse, vibrations

Abstract. This experiment report the vibration of Prototype Auditory Membrane (PAM) for a novel implantable auditory membrane. PAM made of PVDF which is fabricated using MEMS technology. The vibration are measured as a response of a pulse sinc wave which are applied from one of side of the membrane. The vibrations are analyzed experimentally based on the Fourier analyze theory.

Introduction

Ear is one of the five sense of human and part of auditory system. Ear is also one of the important organs of human for activity. It is not only to hear and receive a sound but also assist in balance and body positions.

Hearing is one of part the communication language to increase the skills of children and human to growth. Children can not make a communication with the other if they have some trouble with their hearing. There are many cause about hearing loss. The malfunction of the inner hairs cell is one of them [1][2]. The inner hair cells that are located inside the cochlea usually can not be repaired. Many researcher and company develop and research about cochlear implant to solve the problem. The problem of frequency selectivity is one of the important things in this case. Manufacturing of the device to realize of the selectivity which are related with cochlea have been reported. Kenji Tanaka et al. (1998) and Fang Yi Chen et al. (2006) report the results of fabricated a trapezoidal beam arrays which are fixed over a trapezoidal channel. The problem of their research about the mechanical strength of the beams structure is not strong enough. Robert D. White and Karl Grosh (2005) also make an experiment of the cochlear model using materials of silicon-nitride Si₃N₄ beams and compared with the biological materials. In this paper we discuss and analyze the behavior of the