

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

Judul Jurnal Ilmiah (Artikel) : Mechanical Properties of Friction Stir Welding Joining of PolyTetraFluoroEthylene
 Jumlah Penulis : 2 orang (Mulyanto, **Sulardjaka***) *) Corresponding author.
 Status Pengusul : penulis ke-2
 Identitas Jurnal Ilmiah :
 a. Nama Jurnal : International Review of Mechanical Engineering
 b. Nomor ISSN : ISSN: 1970-8734, e-ISSN: 2532-5655
 c. Vol, No., Bln Thn : Vol. 14 No. 4, April 2020.
 d. Penerbit : Praise Worthy Prize
 e. DOI artikel (jika ada) : <https://doi.org/10.15866/ireme.v14i4.18037>
 f. Alamat web jurnal : [https://www.praiseworthyprize.org/jsm/index.php?journal=ireme&page=article&op=view&path\[\]=18037](https://www.praiseworthyprize.org/jsm/index.php?journal=ireme&page=article&op=view&path[]=18037)
 Alamat Artikel : https://doc-pak.undip.ac.id/3351/2/IREME_14_4.pdf
 g. Terindex : Scopus, SJR tahun 2019: 0,27 (Q3)

Kategori Publikasi Jurnal Ilmiah : ☒ Jurnal Ilmiah Internasional
 (beri ✓ pada kategori yang tepat) ☐ Jurnal Ilmiah Nasional Terakreditasi
☐ Jurnal Ilmiah Nasional Tidak Terakreditasi

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Reviewer		Nilai Rata-rata
	Reviewer I	Reviewer II	
a. Kelengkapan unsur isi jurnal (10%)	4,00	4	4,00
b. Ruang lingkup dan kedalaman pembahasan (30%)	11,00	11,00	11,00
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	11,50	11,00	11,25
d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	12,00	11,50	11,75
Total = (100%)	38,50	37,50	38,00
Nilai Pengusul = (50% x 38,00) = 19,00			

Semarang, 5 Oktober 2020

Reviewer 2

Ir. Efilta Yohana, M.T, PhD.
 NIP. 196204281990012001
 Unit Kerja : Teknik Mesin FT UNDIP

Reviewer 1

Dr. Agus Suprihanto, S.T, M.T.
 NIP. 197108181997021001
 Unit Kerja : Teknik Mesin FT UNDIP

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

Judul Jurnal Ilmiah (Artikel) : Mechanical Properties of Friction Stir Welding Joining of PolyTetraFluoroEthylene
 Jumlah Penulis : 2 orang (Mulyanto, **Sulardjaka***) *) Corresponding author.
 Status Pengusul : penulis ke-2
 Identitas Jurnal Ilmiah : a. Nama Jurnal : International Review of Mechanical Engineering
 b. Nomor ISSN : ISSN: 1970-8734, e-ISSN: 2532-5655
 c. Vol, No., Bln Thn : Vol. 14 No. 4, April 2020.
 d. Penerbit : Praise Worthy Prize
 e. DOI artikel (jika ada) : <https://doi.org/10.15866/ireme.v14i4.18037>
 f. Alamat web jurnal : [https://www.praiseworthyprize.org/jsm/index.php?journal=ireme&page=article&op=view&path\[\]=18037](https://www.praiseworthyprize.org/jsm/index.php?journal=ireme&page=article&op=view&path[]=18037)
 Alamat Artikel : https://doc-pak.undip.ac.id/3351/2/IREME_14_4.pdf
 g. Terindex : Scopus, SJR tahun 2019: 0,27 (Q3)

Kategori Publikasi Jurnal Ilmiah : ☒ Jurnal Ilmiah Internasional
 (beri ✓ pada kategori yang tepat) ☐ Jurnal Ilmiah Nasional Terakreditasi
☐ Jurnal Ilmiah Nasional Tidak Terakreditasi

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal Jurnal Ilmiah			Nilai Akhir Yang Diperoleh
	Internasional 40	Nasional Terakreditasi 	Nasional Tidak Terakreditasi 	
a. Kelengkapan unsur isi jurnal (10%)	4,00			4,00
b. Ruang lingkup dan kedalaman pembahasan (30%)	12,00			11,00
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	12,00			11,50
d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	12,00			12,00
Total = (100%)	40,00			38,50
Nilai Pengusul = (50% x 38,50) = 19,25				

Catatan Penilaian artikel oleh Reviewer :

1. Kesesuaian dan kelengkapan unsur isi jurnal:

Penulisan artikel telah sesuai dengan "Guide for Author" (Title, Abstract, Introduction, Materials and Methods, Results and Discussion, Conclusion, References). Substansi artikel sangat sesuai bidang ilmu penulis utama tentang penyambungan bahan (Teknik Mesin dengan keahlian bidang material). (skor=4,00).

2. Ruang lingkup dan kedalaman pembahasan:

Artikel sesuai dengan ruang lingkup jurnal yaitu bidang teknik mesin. Hasil yang ditampilkan detil, kedalaman analisis sangat baik, menggunakan 8 dari 27 referensi. (skor = 11,0)

3. Kecukupan dan kemutakhiran data/informasi dan metodologi:

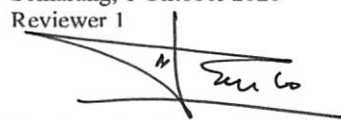
Informasi yang disajikan menunjukkan adanya kebaruan. Temuan tentang metode pengelasan fasa padat polimer masih sangat baru. Artikel menggunakan 27 referensi, dengan 22 referensi merupakan artikel dari jurnal bereputasi yang terbit dalam waktu 10 th terakhir. (skor = 11,50).

4. Kelengkapan unsur dan kualitas terbitan:

Jurnal tergolong dalam Jurnal Internasional Bereputasi, tata tulis dan tata bahasa baik menunjukkan proses rebview yang baik (terindeks Scopus, dengan SJR: 0,27, (Q3). (skor = 12)

Semarang, 1 Oktober 2020

Reviewer 1



Dr. Agus Suprihanto, S.T, M.T.

NIP. 197108181997021001

Unit Kerja : Teknik Mesin FT UNDIP

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

Judul Jurnal Ilmiah (Artikel) : Mechanical Properties of Friction Stir Welding Joining of PolyTetraFluoroEthylene
 Jumlah Penulis : 2 orang (Mulyanto, **Sulardjaka***) *) Corresponding author.
 Status Pengusul : penulis ke-2
 Identitas Jurnal Ilmiah : a. Nama Jurnal : International Review of Mechanical Engineering
 b. Nomor ISSN : ISSN: 1970-8734, e-ISSN: 2532-5655
 c. Vol, No., Bln Thn : Vol. 14 No. 4, April 2020.
 d. Penerbit : Praise Worthy Prize
 e. DOI artikel (jika ada) : <https://doi.org/10.15866/ireme.v14i4.18037>
 f. Alamat web jurnal : [https://www.praiseworthyprize.org/jsm/index.php?journal=ireme&page=article&op=view&path\[\]=18037](https://www.praiseworthyprize.org/jsm/index.php?journal=ireme&page=article&op=view&path[]=18037)
 Alamat Artikel : https://doc-pak.undip.ac.id/3351/2/IREME_14_4.pdf
 g. Terindex : Scopus, SJR tahun 2019: 0,27 (Q3)

Kategori Publikasi Jurnal Ilmiah : ☒ Jurnal Ilmiah Internasional
 (beri ✓ pada kategori yang tepat) ☐ Jurnal Ilmiah Nasional Terakreditasi
☐ Jurnal ilmiah Nasional Tidak Terakreditasi

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal Jurnal Ilmiah			Nilai Akhir Yang Diperoleh
	Internasional	Nasional Terakreditasi	Nasional Tidak Terakreditasi	
	40	☐	☐	
a. Kelengkapan unsur isi jurnal (10%)	4,00			4
b. Ruang lingkup dan kedalaman pembahasan (30%)	12,00			11,00
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	12,00			11,00
d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	12,00			11,50
Total = (100%)	40,00			37,50
Nilai Pengusul = (50% x 37,50) = 18,75				

Catatan Penilaian artikel oleh Reviewer :

- a) Kesesuaian dan kelengkapan unsur isi jurnal:
 Artikel tentang teknik penyambungan bahan, termasuk dalam bidang keahlian di Teknik Mesin. Tata tulis artikel yang meliputi: Title, Abstract, Introduction, Materials and methods, Results and Discussion, Conclusion, References telah sesuai dengan petunjuk penulisan yang ada. (nilai: 4)
- b) Ruang lingkup dan kedalaman pembahasan:
 Kajian yang dimuat artikel sesuai dengan ruang lingkup jurnal. Analisis yang dipaparkan di dukung data yang relevan, dan rujukan pustaka yang memadai (menggunakan 30 % dari referensi yang digunakan). (nilai: 11)
- c) Kecukupan dan kemutakhiran data/informasi dan metodologi:
 Hasil Turnitin similarity index mendapatkan hasil 13 %, menunjukkan artikel bebas dari plagiasi. Lebih dari 80 % pustaka yang disitasi, merupakan jurnal bereputasi yang terbit dalam 10 tahun terakhir. (nilai: 11)
- d) Kelengkapan unsur dan kualitas terbitan:
 Jurnal terindeks Scopus Q3, SJR: 0,27. (nilai: 11,50)

Semarang, 1 Oktober 2020
 Reviewer 2

Ir. Efilta Yohana, M.T, Ph.D.
 NIP. 196204281990012001
 Unit Kerja : Teknik Mesin FT UNDIP



Document details

1 of 1

Export Download Print E-mail Save to PDF Add to List More... >

View at Publisher

International Review of Mechanical Engineering
Volume 14, Issue 4, April 2020, Pages 253-257

Mechanical properties of friction stir welding joining of polytetrafluoroethylene (Article)

Mulyanto^a, Sulardjaka^{a,b} ✉

^aDepartment Mechanical Engineering, Faculty of Engineering, Diponegoro University, Indonesia Jl. Prof. Soedharto, Tembalang, Semarang, 50275, Indonesia

^bAdvanced Material Laboratory, Central Laboratory for Research and Services, Diponegoro University, Semarang, Indonesia Jl. Prof. Soedharto, Tembalang, Semarang, 50275, Indonesia

Abstract

View references (27)

This study has aimed to investigate the mechanical properties of PolyTetraFluoroEthylene joined by Friction Stir Welding (FSW). The joining process has been conducted on CNC milling machine at speeds of 20, 25 and 30 mm/min and rotation of 750, 1000 and 1250 rpm. Tensile and impact tests have been done based on ASTM D638 and D6110 standard, respectively. Photomicrograph and SEM photomicrograph have been used to analyses the fracture mode and the fracture surface, respectively. The results have showed an increase in tensile and impact strength, along with rising in each rotational speed. However, there have been decreases in these strengths on each speed increase. In addition, the results have showed 20 mm/minute welding, and an increased rotation raises the tensile and impact resistance. At the same rotation speed, the rise in welding speed reduces the strengths. Furthermore, at 20 mm/minute, the strengths have been higher than at 25 and 30 mm/minute. © 2020 Praise Worthy Prize S.r.l.-All rights reserved.

SciVal Topic Prominence ⓘ

Topic: Spot Welding | Weld Strength | Friction

Prominence percentile: 96.438 ⓘ

Author keywords

Friction Stir Welding Mechanical Properties PolyTetraFluoroEthylene (PTFE) Welding Speed

Funding details

Funding sponsor	Funding number	Acronym
Kementerian Riset, Teknologi dan Pendidikan Tinggi		
Funding text		
This work was supported by PDUPT research grant (advanced research of higher education), Directorate of research and community service, Ministry of Research, Technology and Higher Education of the Republic of Indonesia. Contract number: 101-32/UN7.4.3/PP/2019.		

Metrics ⓘ View all metrics >



PlumX Metrics

Usage, Captures, Mentions, Social Media and Citations beyond Scopus.

Cited by 0 documents

Inform me when this document is cited in Scopus:

Set citation alert >

Related documents

PLA-PEKK-HAp-CS composite scaffold joining with friction stir spot welding

Singh, J. , Singh, R. , Kumar, R. (2019) *Journal of Thermoplastic Composite Materials*

Friction stir welding/processing of polymers and polymer matrix composites

Huang, Y. , Meng, X. , Xie, Y. (2018) *Composites Part A: Applied Science and Manufacturing*

Friction stirwelding and friction spot stir welding processes of polymers-state of the art

Lambiase, F. , Derazkola, H.A. , Simchi, A. (2020) *Materials*

View all related documents based on references

Find more related documents in Scopus based on:

Authors > Keywords >

References (27)

[View in search results format >](#)

☐ All [Export](#)  [Print](#)  [E-mail](#)  [Save to PDF](#) [Create bibliography](#)

-
- ☐ 1 Bilici, M.K.
Application of Taguchi approach to optimize friction stir spot welding parameters of polypropylene
(2012) *Materials and Design*, 35, pp. 113-119. Cited 62 times.
doi: 10.1016/j.matdes.2011.08.033
[View at Publisher](#)
-
- ☐ 2 Lee, D., Oh, Y., Nam, S., Choe, J., Lee, D.G.
Adhesion characteristics of fiber-exposed glass composites
(2017) *Composite Structures*, 165, pp. 9-14. Cited 11 times.
www.elsevier.com/locate/compositesa
doi: 10.1016/j.compstruct.2017.01.001
[View at Publisher](#)
-
- ☐ 3 Sugiman, Sulardjaka
Water absorption and desorption behaviour and their effect on the tensile properties of fm 73M adhesive film
(2016) *International Journal of Technology*, 7 (3), pp. 438-446. Cited 4 times.
<http://www.ijtech.eng.ui.ac.id/index.php/journal/article/download/2804/539>
doi: 10.14716/ijtech.v7i3.2804
[View at Publisher](#)
-
- ☐ 4 Pramanik, A., Basak, A.K., Dong, Y., Sarker, P.K., Uddin, M.S., Littlefair, G., Dixit, A.R., (...), Chattopadhyaya, S.
Joining of carbon fibre reinforced polymer (CFRP) composites and aluminium alloys – A review
(2017) *Composites Part A: Applied Science and Manufacturing*, 101, pp. 1-29. Cited 144 times.
doi: 10.1016/j.compositesa.2017.06.007
[View at Publisher](#)
-
- ☐ 5 Murray, R.E., Roadman, J., Beach, R.
Fusion joining of thermoplastic composite wind turbine blades: Lap-shear bond characterization
(2019) *Renewable Energy*, 140, pp. 501-512. Cited 9 times.
<http://www.journals.elsevier.com/renewable-and-sustainable-energy-reviews/>
doi: 10.1016/j.renene.2019.03.085
[View at Publisher](#)
-

- 6 Panneerselvam, K., Aravindan, S., Noorul Haq, A.
Study on resistance welding of glass fiber reinforced thermoplastic composites
(2012) *Materials and Design*, 41, pp. 453-459. Cited 16 times.
doi: 10.1016/j.matdes.2012.05.025
[View at Publisher](#)
-
- 7 Reitz, Wayne E., Oman, Rebecca M.
How to join plastics
(2000) *Advanced Materials and Processes*, 158 (3), pp. 49-52. Cited 8 times.
-
- 8 Jain, R., Pal, S.K., Singh, S.B.
A study on the variation of forces and temperature in a friction stir welding process: A finite element approach
(2016) *Journal of Manufacturing Processes*, 23, pp. 278-286. Cited 43 times.
<http://www.elsevier.com/locate/jmapro>
doi: 10.1016/j.jmapro.2016.04.008
[View at Publisher](#)
-
- 9 Inaniwa, S., Kurabe, Y., Miyashita, Y., Hori, H.
Application of friction stir welding for several plastic materials
(2013) *Proceedings of the 1st International Joint Symposium on Joining and Welding*, pp. 137-143. Cited 20 times.
Japan
-
- 10 Vijendra, B., Sharma, A.
Induction heated tool assisted friction-stir welding (i-FSW): A novel hybrid process for joining of thermoplastics
(2015) *Journal of Manufacturing Processes*, Part 1 20, pp. 234-244. Cited 40 times.
<http://www.elsevier.com/locate/jmapro>
doi: 10.1016/j.jmapro.2015.07.005
[View at Publisher](#)
-
- 11 Pirizadeh, M., Azdast, T., Rash Ahmadi, S., Mamaghani Shishavan, S., Bagheri, A.
Friction stir welding of thermoplastics using a newly designed tool
(2014) *Materials and Design*, 54, pp. 342-347. Cited 57 times.
doi: 10.1016/j.matdes.2013.08.053
[View at Publisher](#)
-
- 12 Paoletti, A., Lambiase, F., Di Ilio, A.
Optimization of friction stir welding of thermoplastics ([Open Access](#))
(2015) *Procedia CIRP*, 33, pp. 562-567. Cited 40 times.
<http://www.sciencedirect.com/science/journal/22128271>
doi: 10.1016/j.procir.2015.06.078
[View at Publisher](#)
-

- ☐ 13 Eslami, S., Ramos, T., Tavares, P.J., Moreira, P.M.G.P.
Effect of Friction Stir Welding Parameters with Newly Developed Tool for Lap Joint of Dissimilar Polymers ([Open Access](#))
(2015) *Procedia Engineering*, 114, pp. 199-207. Cited 27 times.
<http://www.sciencedirect.com/science/journal/18777058>
doi: 10.1016/j.proeng.2015.08.059
[View at Publisher](#)
-
- ☐ 14 Eslami, S., Ramos, T., Tavares, P.J., Moreira, P.M.G.P.
Shoulder design developments for FSW lap joints of dissimilar polymers
(2015) *Journal of Manufacturing Processes*, Part 1 20, pp. 15-23. Cited 31 times.
http://www.elsevier.com/locate/journaldescription.cws_home/620379/description#description
doi: 10.1016/j.jmapro.2015.09.013
[View at Publisher](#)
-
- ☐ 15 Strand, S.R., Sorensen, C.D., Nelson, T.W.
Effects of friction stir welding on polymer microstructure
(2003) *Annual Technical Conference - ANTEC, Conference Proceedings*, 1, pp. 1078-1082. Cited 20 times.
-
- ☐ 16 Jaiganesh, V., Maruthu, B., Gopinath, E.
Optimization of process parameters on friction stir welding of high density polypropylene plate ([Open Access](#))
(2014) *Procedia Engineering*, 97, pp. 1957-1965. Cited 22 times.
<http://www.sciencedirect.com/science/journal/18777058>
doi: 10.1016/j.proeng.2014.12.350
[View at Publisher](#)
-
- ☐ 17 Kusharjanta, B., Raharjo, W.P., Triyono
Temperature comparison of initial, middle and final point of polypropylene friction stir welded
(2016) *AIP Conference Proceedings*, 1717, art. no. 4943454. Cited 2 times.
<http://scitation.aip.org/content/aip/proceeding/aipcp>
ISBN: 978-073541365-8
doi: 10.1063/1.4943454
[View at Publisher](#)
-
- ☐ 18 Lambiase, F., Paoletti, A., Di Ilio, A.
Effect of tool geometry on mechanical behavior of friction stir spot welds of polycarbonate sheets
(2017) *International Journal of Advanced Manufacturing Technology*, 88 (9-12), pp. 3005-3016. Cited 21 times.
<http://www.springerlink.com/content/0268-3768>
doi: 10.1007/s00170-016-9017-2
[View at Publisher](#)
-
- ☐ 19 Zafar, A., Awang, M., Khan, S.R., Emamian, S.
Investigating friction stir welding on thick nylon 6 plates
(2016) *Welding Journal*, 95 (6), pp. 210s-218s. Cited 11 times.
<http://www.aws.org/wa/wj/archive.html?id=H6QUkaKr>

- ☐ 20 Kumar, R., Singh, R., Ahuja, I.P.S., Penna, R., Feo, L.
Weldability of thermoplastic materials for friction stir welding- A state of art review and future applications
(2018) *Composites Part B: Engineering*, 137, pp. 1-15. Cited 46 times.
doi: 10.1016/j.compositesb.2017.10.039
[View at Publisher](#)
-
- ☐ 21 Kumar, R., Singh, R., Ahuja, I.P.S.
Mechanical, thermal and micrographic investigations of friction stir welded: 3D printed melt flow compatible dissimilar thermoplastics
(2019) *Journal of Manufacturing Processes*, 38, pp. 387-395. Cited 6 times.
<http://www.elsevier.com/locate/jmapro>
doi: 10.1016/j.jmapro.2019.01.043
[View at Publisher](#)
-
- ☐ 22 Derazkola, H.A., Eyvazian, A., Simchi, A.
Modeling and experimental validation of material flow during FSW of polycarbonate ([Open Access](#))
(2020) *Materials Today Communications*, 22, art. no. 100796. Cited 19 times.
<http://www.journals.elsevier.com/materials-today-communications/>
doi: 10.1016/j.mtcomm.2019.100796
[View at Publisher](#)
-
- ☐ 23 Reed, R.P., Schramm, R.E., Clark, A.F.
Mechanical, thermal, and electrical properties of selected polymers
(1973) *Cryogenics*, 13 (2), pp. 67-82. Cited 39 times.
doi: 10.1016/0011-2275(73)90129-X
[View at Publisher](#)
-
- ☐ 24 Rae, P. J., Gray, G. T., Dattelbaum, D. M., Bourne, N. K.
The taylor impact response of PTFE (teflon)
(2004) *AIP Conf. Proc.*, 706, p. 671. Cited 12 times.
-
- ☐ 25 Rae, P.J., Dattelbaum, D.M.
The properties of poly(tetrafluoroethylene) (PTFE) in compression
(2004) *Polymer*, 45 (22), pp. 7615-7625. Cited 257 times.
<http://www.journals.elsevier.com/polymer/>
doi: 10.1016/j.polymer.2004.08.064
[View at Publisher](#)
-
- ☐ 26 Sabry, I., Mourad, A.-H.I., Thekkuden, D.T.
Comparison of mechanical characteristics of conventional and underwater friction stir welding of AA 6063 pipe joints
(2020) *International Review of Mechanical Engineering*, 14 (1), pp. 64-70.
[http://www.praiseworthyprize.org/jsm/index.php?journal=ireme&page=article&op=view&path\[\]=23785&path\[\]=pdf_563](http://www.praiseworthyprize.org/jsm/index.php?journal=ireme&page=article&op=view&path[]=23785&path[]=pdf_563)
doi: 10.15866/ireme.v14i1.17483
[View at Publisher](#)
-

Characteristics of potential sources - vertical force, torque and current on penetration depth for quality assessment in friction stir welding of AA 6061 pipes

(2019) *International Review of Aerospace Engineering*, 12 (4), pp. 195-204. Cited 4 times.

[https://www.praiseworthyprize.org/jsm/index.php?](https://www.praiseworthyprize.org/jsm/index.php?journal=irease&page=article&op=download&path[]=23122&path[]=pdf_161)

[journal=irease&page=article&op=download&path\[\]=23122&path\[\]=pdf_161](https://www.praiseworthyprize.org/jsm/index.php?journal=irease&page=article&op=download&path[]=23122&path[]=pdf_161)

doi: 10.15866/irease.v12i4.16362

[View at Publisher](#)

🔍 Sulardjaka, ; Department Mechanical Engineering, Faculty of Engineering, Diponegoro University, Indonesia Jl.

Prof. Soedharto, Tembalang, Semarang, Indonesia; email:sulardjaka@lecturer.undip.ac.id

🔍 Sulardjaka, ; Advanced Material Laboratory, Central Laboratory for Research and Services, Diponegoro University,

Semarang, Indonesia Jl. Prof. Soedharto, Tembalang, Semarang, Indonesia; email:sulardjaka@lecturer.undip.ac.id

© Copyright 2020 Elsevier B.V., All rights reserved.

About Scopus

[What is Scopus](#)

[Content coverage](#)

[Scopus blog](#)

[Scopus API](#)

[Privacy matters](#)

Language

[日本語に切り替える](#)

[切换到简体中文](#)

[切换到繁體中文](#)

[Русский язык](#)

Customer Service

[Help](#)

[Contact us](#)

ELSEVIER

[Terms and conditions](#) ↗ [Privacy policy](#) ↗

Copyright © Elsevier B.V. ↗. All rights reserved. Scopus® is a registered trademark of Elsevier B.V.

We use cookies to help provide and enhance our service and tailor content. By continuing, you agree to the use of cookies.

RELX



Source details

International Review of Mechanical Engineering

Scopus coverage years: from 2009 to Present

Publisher: Praise Worthy Prize

ISSN: 1970-8734 E-ISSN: 2532-5655

Subject area: Engineering: Mechanical Engineering

[View all documents >](#)

[Set document alert](#)

[Save to source list](#)

CiteScore 2019

1.3



Add CiteScore to your site

SJR 2019

0.270



SNIP 2019

0.540



CiteScore CiteScore rank & trend Scopus content coverage

i Improved CiteScore methodology



CiteScore 2019 counts the citations received in 2016-2019 to articles, reviews, conference papers, book chapters and data papers published in 2016-2019, and divides this by the number of publications published in 2016-2019. [Learn more >](#)

CiteScore 2019 ▾

$$1.3 = \frac{537 \text{ Citations 2016 - 2019}}{399 \text{ Documents 2016 - 2019}}$$

Calculated on 06 May, 2020

CiteScoreTracker 2020 ⓘ

$$1.5 = \frac{559 \text{ Citations to date}}{371 \text{ Documents to date}}$$

Last updated on 02 October, 2020 • Updated monthly

CiteScore rank 2019 ⓘ

Category	Rank	Percentile
Engineering		
— Mechanical Engineering	#360/585	38th

[View CiteScore methodology >](#) [CiteScore FAQ >](#)



About Scopus

- What is Scopus
- Content coverage
- Scopus blog
- Scopus API
- Privacy matters

Language

- 日本語に切り替える
- 切换到简体中文
- 切换到繁體中文
- Русский язык

Customer Service

- Help
- Contact us



Praise Worthy Prize

INFORMATION

- [For Readers](#)
- [For Authors](#)
- [For Reviewers](#)

FONT SIZE

USER

Username

Password

☐ Remember me

[Login](#)

[Privacy Policy](#)



Praise
Worthy
Papers

[Most cited papers](#)

Powered by Scopus

[Highly commended papers](#)

[Commended papers](#)

Most Popular
Papers

[MILD Combustion: the Future for Lean and Clean Combustion Technology](#)

M. Noor et al.
4090 views
since: 2014-01-31

[A Review of Piezoelectric Vibration Energy Harvesting Techniques](#)

HOME PRAISE WORTHY PRIZE ABOUT
LOGIN REGISTER PWP ONLINE LIBRARY
CURRENT ARCHIVES ANNOUNCEMENTS
OTHER JOURNALS DOWNLOAD ISSUES
SUBMIT YOUR PAPER SPECIAL ISSUE

Home > **International Review of Mechanical Engineering (IREME)**

International Review of Mechanical Engineering (IREME)



ISSN: 1970-8734
e-ISSN: 2532-5655

Editor-in-Chief:

Prof. **Ethirajan Rathakrishnan**
Department of Aerospace Engineering
Indian Institute of Technology
Kanpur - INDIA

Editorial Board



Supports Open Access

[Submit Your Paper](#)

Journal Aims

[PRAISE WORTHY PRIZE HOMEPAGE](#)

SUBSCRIPTION

Login to verify subscription
[Give a gift subscription](#)

NOTIFICATIONS

- [View](#)
- [Subscribe / Unsubscribe](#)

JOURNAL CONTENT

Search

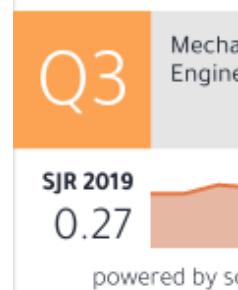
 All

Browse

- [By Issue](#)
- [By Author](#)
- [By Title](#)
- [Other Journals](#)

Journal Metrics

International Review of Mechanical Engineering



38th percentile
Powered by



ALL SUBMISSIONS SCREENED BY:
iThenticate®
Professional Plagiarism Prevention

[WANT TO PRE-CHECK YOUR WORK? >>](#)





Praise Worthy Prize

International Review of Mechanical Engineering (IREME)

INFORMATION

- [For Readers](#)
- [For Authors](#)
- [For Reviewers](#)

FONT SIZE

USER

Username

Password

☐ Remember me

[Privacy Policy](#)



Praise
Worthy
Papers

[Most cited papers](#)

Powered by Scopus

[Highly commended
papers](#)

[Commended papers](#)

Most Popular
Papers

[MILD
Combustion:
the Future for
Lean and Clean
Combustion
Technology](#)
M. Noor et al.
4090 views
since: 2014-01-
31

[A Review of
Piezoelectric
Vibration
Energy
Harvesting](#)

HOME	PRAISE WORTHY PRIZE	ABOUT
LOGIN	REGISTER	PWP ONLINE LIBRARY
CURRENT	ARCHIVES	ANNOUNCEMENTS
OTHER JOURNALS	DOWNLOAD ISSUES	
SUBMIT YOUR PAPER	SPECIAL ISSUE	

Home > About the Journal > **Editorial Board**

Editorial Board

Editor-in-Chief

Ethirajan Rathakrishnan, Department of Aerospace Engineering Indian Institute of Technology, India

Editorial Board members

Jeongmin Ahn, Department of Mechanical and Aerospace Engineering- Syracuse University, United States

Jan Awrejcewicz, Technical University of Lodz Department of Automatics and Biomechanics, Poland

Prof. Dr. Ali Cemal Benim, Duesseldorf University of Applied Sciences, Germany

Stjepan BOGDAN, University of Zagreb - Faculty of Electrical Engineering and Computing, Croatia

Andr  Bontemps, LEGI/CEA- Greth Universite Joseph Fourier, France

Felix Chernousko, Institute for Problems in Mechanics of the Russian Academy of Sciences, Russian Federation

Kim Choon Ng, King Abdullah University of Science and Technology, Saudi Arabia

Olga V. Egorova, Department of Robotics and Complex Automation Moscow Bauman State Technical University, Russian Federation

Horacio Espinosa, Department of Mechanical Engineering Northwestern University, United States

Izhak Etsion, Dept. of Mechanical Engineering -Technion - IIT, Israel

Alexander N. Evgrafov, Department of Theory of Mechanisms and Machines Peter the Great St.Petersburg Polytechnic University, Russian Federation

Torsten Fransson, Dept. of Energy Technology - Royal Institute of Technology, Stockholm, Sweden

[PRAISE WORTHY
PRIZE HOMEPAGE](#)

SUBSCRIPTION

Login to verify
subscription
[Give a gift
subscription](#)

NOTIFICATIONS

- [View](#)
- [Subscribe /
Unsubscribe](#)

JOURNAL CONTENT

Search

All

Browse

- [By Issue](#)
- [By Author](#)
- [By Title](#)
- [Other Journals](#)



ALL SUBMISSIONS SCREENED BY:

iThenticate
Professional Plagiarism Prevention

[WANT TO PRE-CHECK YOUR WORK? >>](#)



[Techniques](#)

[H. Xiao et al.](#)
2431 views
since: 2014-05-31

[Integrated Oil](#)[Palm Fruit](#)[Digester-](#)[Separator-](#)[Screw Press](#)[Machine](#)

[N. Nduka](#)
2252 views
since: 2013-07-31

[Evaluation of](#)[Mechanical](#)[Properties of](#)[Aluminium Alloy](#)[7075](#)[Reinforced with](#)[Tungsten](#)[Carbide and](#)[Fly-Ash](#)

[P.](#)

[Vivekanandan](#)
[et al.](#)
1948 views
since: 2014-01-31

[A Parametric](#)[Optimization of](#)[FSW Process](#)[Using RSM](#)[Based Grey](#)[Relational](#)[Analysis](#)[Approach](#)

[D. Vijayan et al.](#)
1610 views
since: 2014-03-27

[Michael I. Friswell](#), Swansea University - School of Engineering, United Kingdom

[Nesreen Ghaddar](#), Dept. of Mechanical Engineering Faculty of Engineering and Architecture American University of Beirut, Lebanon

[Adriana Greco](#), DETEC (Dept. of Energetics, Thermofluidodynamics and Environmental Control), Federico II University, Naples, Italy

[Carl T. Herakovich](#), Department of Civil Engineering The University of Virginia, United States

[M. G. Higazy](#), Mechanical Engineering Department, Faculty of Engineering, Shoubra, Benha University, Cairo, Egypt

[David Hui](#), Department of Mechanical Engineering – University of New Orleans, United States

[Heuy-Dong KIM](#), Andong National University - School of Mechanical Engineering, Korea, Democratic People's Republic of

[Marta KURUTZ](#), Technical University of Budapest - Department of Structural Mechanics, Hungary

[Herbert A. Mang](#), Institute for Mechanics of Materials and Structures Vienna University of Technology, Austria

[Josua P. MEYER](#), University of Pretoria - Dept.of Mechanical & Aeronautical Engineering, South Africa

[Bijan MOHAMMADI](#), Université Montpellier II - Institut de Mathématiques et de Modélisation de Montpellier, France

[Hans Müller-Steinhagen](#), TU Dresden, Germany

[Eugenio Oñate](#), International Center for Numerical Methods in Engineering (CIMNE), Spain

[Pradipta Kumar PANIGRAHI](#), Indian Institute of Technology, Kanpur - Mechanical Engineering, India

[Constantine Rakopoulos](#), Internal Combustion Engines Lab.School of Mechanical Engineering National Technical University of Athens, Greece

[Raul Suarez](#), Institut de Organització i Control de Sistemes Industrials - Universitat Politècnica de Ca, Spain

[David J. Timoney](#), School of Electrical, Electronic & Mechanical Engineering, University College Dublin, Ireland

[George TSATSARONIS](#), Technische Universität Berlin - Institute for Energy Engineering, Germany

[Professor Sharif Ullah](#), Faculty of Engineering, Kitami Institute of Technology, Japan

[Hiroshi Yabuno](#), Institute of Engineering Mechanics and Systems, University of Tsukuba, Japan

[Tim S. Zhao](#), Center for Sustainable Energy Technology The Hong Kong University of Science & Technology, Hong Kong

Please send any question about this web site to

info@praiseworthyprize.com

Copyright © 2005-2020 Praise Worthy Prize



Praise Worthy Prize

International Review of Mechanical Engineering (IREME)

INFORMATION

- [For Readers](#)
- [For Authors](#)
- [For Reviewers](#)

FONT SIZE

USER

Username

Password

☐ Remember me

[Privacy Policy](#)



HOME PRAISE WORTHY PRIZE ABOUT
LOGIN REGISTER PWP ONLINE LIBRARY
CURRENT ARCHIVES ANNOUNCEMENTS
OTHER JOURNALS DOWNLOAD ISSUES
SUBMIT YOUR PAPER SPECIAL ISSUE

[PRAISE WORTHY
PRIZE HOMEPAGE](#)

SUBSCRIPTION

Login to verify
subscription
[Give a gift
subscription](#)

NOTIFICATIONS

- [View](#)
- [Subscribe /
Unsubscribe](#)

JOURNAL CONTENT

Search

All

Browse

- [By Issue](#)
- [By Author](#)
- [By Title](#)
- [Other Journals](#)

Home > Archives > **Vol 14, No 4 (2020)**

Vol 14, No 4 (2020)

Open Access Subscription or Fee Access

Full Issue

View or download the full issue

[VOL 14 N 4](#)

Table of Contents

Articles

[Deformation and Optimization of Double
Tube Under Bending Loads](#)

*Fauzan Djamaluddin, Ilyas Renreng,
Fauziah Mat*

[PDF](#)

218-223

[Numerical Investigation of Flexibility:
Open-Cell Versus Closed-Cell Stent Designs](#)

*Chandrakantha Bekal, Satish Shenoy
B., Ranjan Shetty*

[PDF](#)

224-229

[Effects of Soft Tissue Artifact in the
Measurement of Hand Kinematics](#)

*Federica Ragni, Cinzia Amici, Alberto
Borboni, Rodolfo Faglia, Valter
Cappellini, Paolo Pedersini, Jorge
Hugo Villafañe*

[PDF](#)

230-242

[Enhanced Mesostructural Modeling and
Prediction of the Mechanical Behavior of
Acrylonitrile Butadiene Styrene Parts
Manufactured by Fused Deposition
Modeling](#)

*Mourad Othmani, Khalid Zarbane,
Abdelkerim Chouaf*

[PDF](#)

243-252

[Mechanical Properties of Friction Stir
Welding Joining of PolyTetraFluoroEthylene](#)

*Mulyanto Mulyanto, **Sulardjaka**
Sulardjaka*

[PDF](#)

253-257

Praise
Worthy
Papers

[Most cited papers](#)

Powered by

[Highly commended
papers](#)

[Commended papers](#)

Most Popular
Papers

[MILD
Combustion:
the Future for
Lean and Clean
Combustion
Technology](#)

M. Noor et al.
4090 views
since: 2014-01-
31

[A Review of
Piezoelectric
Vibration
Energy
Harvesting](#)



ALL SUBMISSIONS SCREENED BY:
 iThenticate
Professional Plagiarism Prevention

[WANT TO PRE-CHECK YOUR WORK? >>](#)



[Techniques](#)

H. Xiao et al.
2431 views
since: 2014-05-31

[Integrated Oil Palm Fruit Digester-Separator-Screw Press Machine](#)

N. Nduka
2252 views
since: 2013-07-31

[Evaluation of Mechanical Properties of Aluminium Alloy 7075 Reinforced with Tungsten Carbide and Fly-Ash](#)

P. Vivekanandan et al.
1948 views
since: 2014-01-31

[A Parametric Optimization of FSW Process Using RSM Based Grey Relational Analysis Approach](#)

D. Vijayan et al.
1610 views
since: 2014-03-27

[Criticality Assessment for Marine Diesel Engine Using Failure Mode and Effect Criticality Analysis \(FMECA\) Approach: Case Study on Lubricating Oil System](#)

Nurhadi Siswanto, Semin Semin, Muhammad Badrus Zaman

PDF 

258-263

[A Comparative Study of Seismic and Tsunami Vulnerability of Structures Located in the Coastal Area of Rabat-Salé, Morocco](#)

E. Nchiti, A. El Hammoumi, Kamal Gueraoui, A. Iben Brahim

PDF 

264-273

[Experiment Analysis Degree of Superheating Mass Flow Rate on the Evaporator as a Source of Energy Generation](#)

Muhamad Yunus Abdullah, Prabowo Prabowo, Bambang Sudarmanta

PDF 

274-281

Please send any question about this web site to info@praiseworthyprize.com

Copyright © 2005-2020 Praise Worthy Prize



Praise Worthy Prize

International Review of Mechanical Engineering (IREME)

INFORMATION

- [For Readers](#)
- [For Authors](#)
- [For Reviewers](#)

FONT SIZE

USER

Username

Password

☐ Remember me

[Privacy Policy](#)

ARTICLE TOOLS

[Print this article](#)

[How to cite item](#)

[Finding](#)

[References](#)

[Email this article](#)

(Login required)



Praise
Worthy
Papers

[Most cited papers](#)

Powered by Scopus

[Highly commended papers](#)

[Commended papers](#)

[Most Popular Papers](#)

HOME	PRAISE WORTHY PRIZE	ABOUT
LOGIN	REGISTER	PWP ONLINE LIBRARY
CURRENT	ARCHIVES	ANNOUNCEMENTS
OTHER JOURNALS	DOWNLOAD ISSUES	
SUBMIT YOUR PAPER	SPECIAL ISSUE	

[PRAISE WORTHY
PRIZE HOMEPAGE](#)

SUBSCRIPTION

Login to verify
subscription
[Give a gift
subscription](#)

NOTIFICATIONS

- [View](#)
- [Subscribe /
Unsubscribe](#)

JOURNAL CONTENT

Search

All
▼

Browse

- [By Issue](#)
- [By Author](#)
- [By Title](#)
- [Other Journals](#)

Mechanical Properties of Friction Stir Welding Joining of PolyTetraFluoroEthylene

Mulyanto Mulyanto⁽¹⁾, [Sulardjaka Sulardjaka](#)^(2*)

(1) Department Mechanical Engineering,
Faculty of Engineering, Diponegoro
University, [Indonesia](#)

(2) Department Mechanical Engineering,
Faculty of Engineering, Diponegoro
University, Indonesia

(*) *Corresponding author*

DOI: <https://doi.org/10.15866/ireme.v14i4.18037>

Abstract

This study has aimed to investigate the mechanical properties of PolyTetraFluoroEthylene joined by Friction Stir Welding (FSW). The joining process has been conducted on CNC milling machine at speeds of 20, 25 and 30 mm/min and rotation of 750, 1000 and 1250 rpm. Tensile and impact tests have been done based on ASTM D638 and D6110 standard, respectively. Photomicrograph and SEM photomicrograph have been used to analyses the fracture mode and the fracture surface, respectively. The results have showed an increase in tensile and impact strength, along with rising in each rotational speed. However, there have been decreases in these strengths on each speed increase. In addition, the results have showed 20 mm/minute welding, and an increased rotation raises the tensile and impact resistance. At the same rotation speed, the rise in welding speed reduces the strengths. Furthermore, at 20 mm/minute, the strengths have been higher than at 25 and 30 mm/minute.

Copyright © 2020 Praise Worthy Prize - All rights reserved.



ALL SUBMISSIONS SCREENED BY:
 iThenticate
Professional Plagiarism Prevention

[WANT TO PRE-CHECK YOUR WORK? >>](#)





Praise Worthy Prize

International Review of Mechanical Engineering (IREME)

INFORMATION

- [For Readers](#)
- [For Authors](#)
- [For Reviewers](#)

FONT SIZE

USER

Username

Password

☐ Remember me

[Privacy Policy](#)

ARTICLE TOOLS

[Print this article](#)

[How to cite item](#)

[Finding](#)

References

[Email this article \(Login required\)](#)



HOME PRAISE WORTHY PRIZE ABOUT
LOGIN REGISTER PWP ONLINE LIBRARY
CURRENT ARCHIVES ANNOUNCEMENTS
OTHER JOURNALS DOWNLOAD ISSUES
SUBMIT YOUR PAPER SPECIAL ISSUE

Home > Vol 14, No 4 (2020) > **Nchiti**

Open Access Subscription or Fee Access

A Comparative Study of Seismic and Tsunami Vulnerability of Structures Located in the Coastal Area of Rabat-Salé, Morocco

E. Nchiti⁽¹⁾, A. El Hammoui⁽²⁾, Kamal Gueraoui^(3*), A. Iben
Brahim⁽⁴⁾

(1) Faculty of Sciences, Mohammed V
University, **Morocco**

(2) Faculty of Sciences, Mohammed V
University, Morocco

(3) Faculty of Sciences, Mohammed V
University, Morocco

(4) Geophysics & Natural Risks Laboratory,
Scientific Institute, GEOPAC Research
Center, Mohammed V University, Morocco

(*) *Corresponding author*

DOI: <https://doi.org/10.15866/ireme.v14i4.18159>

Abstract

The aim of this work is to compare seismic vulnerability to tsunami one of structures located in the coastal area of Rabat-Salé, Morocco. Thus, in this study, a semi-empirical method is applied to determine the seismic vulnerability of the structures and a Time-history analysis is used to assess the vulnerability to the tsunami. Data on buildings typology are taken from the 2014 general population and housing census supplemented by the urban database available at the Rabat-Salé Urban Agency. The adopted approach yields fragility curves used to evaluate structural damage of the different types of buildings located in the coastal area of Rabat-Salé, Morocco. This comparison shows that the structures located in this coastal zone will

[PRAISE WORTHY
PRIZE HOMEPAGE](#)

SUBSCRIPTION

Login to verify
subscription
[Give a gift
subscription](#)

NOTIFICATIONS

- [View](#)
- [Subscribe /
Unsubscribe](#)

JOURNAL CONTENT

Search

All

Browse

- [By Issue](#)
- [By Author](#)
- [By Title](#)
- [Other Journals](#)



Praise
Worthy
Papers

[Most cited papers](#)

Powered by **Scopus**

[Highly commended
papers](#)

[Commended papers](#)

Most Popular
Papers



Praise Worthy Prize

International Review of Mechanical Engineering (IREME)

INFORMATION

- [For Readers](#)
- [For Authors](#)
- [For Reviewers](#)

FONT SIZE

USER

Username

Password

☐ Remember me

[Login](#)

[Privacy Policy](#)

ARTICLE TOOLS

[Print this article](#)

[How to cite item](#)

[Finding](#)

[References](#)

[Email this article \(Login required\)](#)



HOME	PRAISE WORTHY PRIZE	ABOUT
LOGIN	REGISTER	PWP ONLINE LIBRARY
CURRENT	ARCHIVES	ANNOUNCEMENTS
OTHER JOURNALS	DOWNLOAD ISSUES	
SUBMIT YOUR PAPER	SPECIAL ISSUE	

Home > Vol 14, No 4 (2020) > **Bekal**

Open Access Subscription or Fee Access

Numerical Investigation of Flexibility: Open-Cell Versus Closed-Cell Stent Designs

Chandrakantha Bekal⁽¹⁾, Satish Shenoy B.^(2*), Ranjan Shetty⁽³⁾

(1) Department of Aeronautical & Automobile Engg, Manipal Institute of Technology, **India**

(2) Department of Aeronautical & Automobile Engg, Manipal Institute of Technology, India

(3) Manipal Hospitals, India

(*) *Corresponding author*

DOI: <https://doi.org/10.15866/ireme.v14i4.18496>

Abstract

This numerical study investigates the advantages/disadvantages of two commercial coronary stent designs for its flexibility. Coronary stents are medical devices used to treat atherosclerotic coronary arteries. A variety of geometrical designs of stents are available in the market which can be broadly classified as open cell and closed cell stent designs based on 'link' positioning. Flexibility, one of the factors impacting implantation success, is influenced by stent geometry, particularly the 'link'. In this study flexibility of two commercial stent designs SupraflexTM (Open-cell) and Yukon Choice (Closed-cell) are investigated using Finite Element Analysis package ANSYS workbench. Realistic and idealized stent models are used for simulation to measure the performance in terms of bending moment versus curvature index plot. Results suggest an upper hand for Stent T, as Stent S demonstrated direction-specific bending nature. Results also underscore the necessity of realistic modeling of geometry as ideal models over/underestimated the stress and

[PRAISE WORTHY PRIZE HOMEPAGE](#)

SUBSCRIPTION

Login to verify subscription
[Give a gift subscription](#)

NOTIFICATIONS

- [View](#)
- [Subscribe / Unsubscribe](#)

JOURNAL CONTENT

Search

All

Browse

- [By Issue](#)
- [By Author](#)
- [By Title](#)
- [Other Journals](#)



ALL SUBMISSIONS SCREENED BY:

iThenticate
Professional Plagiarism Prevention

[WANT TO PRE-CHECK YOUR WORK? >>](#)



Praise
Worthy
Papers

[Most cited papers](#)

Powered by **Scopus**

[Highly commended papers](#)

[Commended papers](#)

[Most Popular Papers](#)