

A Novel Quality Evaluation Using a Smart Unique Language of Interaction Data Between Industry 5.0 and Society 5.0

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Abstract

A newly proposed technique is presented in order to evaluate the quality content of an open access paper in international open access journals. The method was carried out with a unique smart language of interacting data between Industry 5.0 and Society 5.0 online system via the insert of the following three numbers of Viewers, Likes, and Commends, respectively. Unlike h index that involved numbers of citations, this novel manner may open a new way to a wide insight in detecting the quality content of an open access paper worldwide. According to the tests of two different data extracted from Prof. Elim's articles published in Kompasiana platform Blog, the quality analysis for each paper is reasonable and touching the core level of each investigated article. We therefore suggest that this piece of research work can be applied to study many other open access articles in different journals.

Keywords: Smart Unique Language, Industry 5.0, Society 5.0, Quality content.

The significant finding:

A novel invented technique to evaluate and distinguish the content quality of open access papers/ journals based on 3 important factors of Viewers, Likes, and Commends according to the recorded data obtained from the interaction between Industry 5.0 and Society 5.0 through big data, internet of things and artificial intelligence.

~63 Various articles of Prof. H.I. Elim published in the last ~5 months since May 2023: → A Smart Unique Language's Evaluation

Headline/Article (Date Published for First Time)	Brain: (maximum grade ~3.3)	Logic (1-5)	Heart Spirit and Soul (Feeling) (maximum grade ~3.3)	Insights: (maximum grade ~3.3)	Fruitful benefits (1-5)	Final Grade: The grade Interval → The lowest: 0		
30.11.2023: <i>Perubahan Kebijakan Pemerintah Soal Kawasan Industri</i> (Published on 12 May 2023 at 11:41. Revised on 12 May 2023 at 10:30 am)	33.3	46	14	33.3	33.3	498	99.9	100
30.11.2023: <i>Menyoal Peran Sains dalam Pengembangan Industri</i> (Published on 12 May 2023 at 11:44. Revised on 12 May 2023 at 10:30 am)	33.3	62	10	33.3	33.3	469	99.9	100
30.11.2023: <i>Peran Sains dalam Pengembangan Industri</i> (Published on 12 May 2023 at 11:44. Revised on 12 May 2023 at 10:30 am)	33.3	46	11	33.3	33.3	1832	99.9	100
30.11.2023: <i>Peran Sains dalam Pengembangan Industri</i> (Published on 12 May 2023 at 11:44. Revised on 12 May 2023 at 10:30 am)	33.3	42	3	33.3	33.3	617	99.9	100
30.11.2023: <i>Peran Sains dalam Pengembangan Industri</i> (Published on 12 May 2023 at 11:44. Revised on 12 May 2023 at 10:30 am)	33.3	28	8	33.3	33.3	2458	99.9	100
30.11.2023: <i>Peran Sains dalam Pengembangan Industri</i> (Published on 12 May 2023 at 11:44. Revised on 12 May 2023 at 10:30 am)	33.3	24	12	33.3	33.3	4441	99.9	100
30.11.2023: <i>Peran Sains dalam Pengembangan Industri</i> (Published on 12 May 2023 at 11:44. Revised on 12 May 2023 at 10:30 am)	33.3	22	2	33.3	33.3	1262	99.9	100
30.11.2023: <i>Peran Sains dalam Pengembangan Industri</i> (Published on 12 May 2023 at 11:44. Revised on 12 May 2023 at 10:30 am)	33.3	18	4	33.3	33.3	1852	99.9	100

ARTICLES

I. INTRODUCTION

In developing an evaluation method for detecting accurately the content of an open access article in a journal as well as open access platform blog in this 21st century of

nanotechnology era sustained by the effective interaction of **Industry 5.0** and **Society 5.0**, a smart unique language with numbers code system must be discovered nicely.

Based on **previous pure wisdom and wise knowledge and of Elim and Zhai (2020)**, the

whole sophisticated science and technology can be efficiently organized and controlled by the use of **smart artificial intelligence (AI) robotics interconnected via big data (BD) and internet of things (IoT)**. Such multitasking system has been implemented in various living activities involving theological study, philosophy, medicines, softwares, and nanotechnology (**electronic Holy Bible; H.I. Elim, et al., 2019; M.J. Saptanno, et al., 2019; H.I. Elim, et al., 2016; R.A. Serway, C. Vuille, C. Teague and J.R. Gordon, 2007; D. Giancoli, 2008; D. Giancoli, 2009; H.D. Young dan R.A. Freedman, 2008; Halliday, Resnick dan J. Walker, 2011; H.I. Elim, et al., 2017; H.I. Elim, et al., 2018; H.I. Elim, 2019; Yosua dan Elim, 2020; P. Nanlohy, et al., 2017**). The tricky ultrafast movable big data in the whole earth and its satellites are instantly distributed via many types of social media such as **facebook, whatsapp, instagram, kompasiana, twitter**, and so forth (**Elim et al., (2006-2019); Masrikat et al., 2019; Mahubessy et al., 2021; Elim, 2021; Mapanawang et al., (2016-2018); Kaewsri et al., 2007; Rumphius, 1790**).

In this report, a novel method supported by an integrated innovative procedure is proposed to evaluate the best quality content of a paper in open access journals as well as to enhance the knowledge limitation particularly in such way that involves three missing factors embedded in a normal open access journal URL/ website: **(i). Number of Viewers, (ii). Number of Likes, and (iii). Number of Commends**, respectively. In order to test the idea, **the selected articles** published by Prof. Elim in a platform Blog of the world largest platform Blog developed by Kompas Cyber Media since 22nd October 2008

of Kompasiana (www.kompasiana.com) with about 4.2 million active writers have been employed.

The detail investigation is explained herein the paper **with future candidate to be implemented in investigating many other different cases of research studies and works from the data recorded by the automatic online system of Industry 5.0 and Society 5.0**.

II. RESEARCH METHOD

A novel quality evaluation derived by using a simple smart language from interaction data between Industry 5.0 and Society 5.0 is proposed to calculate the rank of an online open access article. In this new method, the content quality of an online open access article can be graded or valued according to the automatic unique detections of **(i). Number of Viewers (or number of Downloaded article in the whole OJS3 journals system), (ii). Number of Likes, and (iii). Number of Commends of the investigated article shown in the world wide website of an open access journal**. In addition, *h* index (**Hirsch, 2005; Hirsch, 2007; Mester, 2016; W. Wanzala, 2018**) had already been implemented using the number citations of a paper/ journal. The uniqueness of this technique, the content quality of an open access article is investigated directly without the knowledge of number of citations commonly recorded in **Web of Science/ SCOPUS/ Google Scholar**.

This innovative procedure could also be conducted to another international open access journals in order to enrich their knowledge limitation especially in such three missing factors embedded in their journal URL/ website: **(i). Number of Viewers, (ii). Number**

of Likes, and (iii). Number of Comments, respectively.

This research method was created based on **4 main pure scientist characters** extracted from Job, the smartest man on earth in Holy Bible (*Holy Bible, Job 1- Job 42*): (1). Honesty, (2). Faithful fellowship (living in godliness), (3). Fear the LORD (YaHWeH ELohYM/ The Almighty GOD), and (4). Turning away from evils. From these main pure wisdom attitudes, ones derive **3 significant grading system**: (1). **The truth thinking (excellent brain thought)**, (2). **The aim of excellent heart (healthy spirit and soul)**, and (3). **Multitasking impacts to world wide nations and tribes**.

First of all, we have defined the maximum grade for each part from the three fields of Viewers, Likes, and Comments as **33.3**, respectively so that the total value for the overall grade will be in the range of 0 up to 100.

Furthermore, in the top quality works, ones express the following 5 criterias to evaluate the high quality content of an open access article with **5 types of 100** defined as follows:

- (i). Comment: > 5 comments, while Like: < 20 & Viewers: <500,
or Comment: < 5 comments & Like: < 20, while Viewers: > 500,
or the number of Like: > 20 like, while Comment: < 5 & Viewers: < 500
 → **99.9** can be summed up to be **100**.
- (ii). Viewers: > 500 viewers and comments: > 5, while Like: < 20 like,

or Like: > 20 like and Comment: > 5 comments,
while Viewers: < 500 viewers:

→ **100** could be added by + or just like: **100⁺**

(iii). Viewers (500 < viewers < 2000), Comment: > 5 comments, & Like: > 20 like:

→ **100** could be added by ++ : **100⁺⁺**

(iv). The best of the best is when:

Viewers: 2000 < viewers < 4000, Comments: > 5 comments

& Like: > 20 likes:

→ **100** could be added by +++ : **100⁺⁺⁺**

and

(V). The best of the best is when:

Viewers: > 4000 viewers, Comments: > 5 comments

& Like: > 20 likes:

→ **100** could be added by ++++ : **100⁺⁺⁺⁺**

On the other hand, if the common or selected articles have grades < 100, then the additional value is calculated as follows:

(vi). Comment: > 5 comments, while Like: < 20 & Viewers: <500,

or Comment: < 5 comments & Like: < 20, while Viewers: > 500,

or the number of Like: > 20 like, while Comment: < 5 & Viewers: < 500

→ for example: **66.6** (or **67**) can be summed up to be **67+1 = 68**.

In order to test this novel technique, the authors used the top high quality data or **8 Headline articles and 8 Common articles from 63 various articles** of Prof. Elim published in the largest world platform Blog developed by Kompas Cyber Media since 22nd October 2008 of Kompasiana (www.kompasiana.com) with ~4.2 million active writers. It shall be noted that it was not

that easy to be selected as headline article by the judges of Kompasiana's online open access Blog. In general, Prof. Elim's 63 various articles were consisted of 8 Headline articles (*Artikel Utama*), 47 Selected articles (*Artikel Pilihan*), and 8 Common articles (*Artikel Biasa yang tidak Pilihan atau Utama*) with the total viewers of 33,130 and commends of 228 from 320 followers.

III. FINDINGS AND DISCUSSION

Figure 1 shows selected highlight pictures of the whole 63 articles of Prof. Elim published in Kompasiana platform Blog in the last 161 days in 2023. Such pictures indicate that the productivity in publishing an article is every 2.6 days. The results explain the deep knowledge of author in handling various topics of works including education, innovation work, poems, fiction story, travel story, videos, and scientific articles.

From the quality evaluation as shown in Table 1 of the 8 Headline articles among 63 various published articles from Prof. Elim in Kompasiana online Blog, ones obtain that the best article (the 1st rank) has the highest grade of 100⁺⁺⁺⁺ with the title of *“Taat Guru: Menentukan Kesuksesan atau Kegagalan.”* While the 2nd best headline article has grade of 100⁺⁺⁺ entitled as *“Menuju Pendidikan Indonesia Terdepan: Diperlukan Laboratorium "Mobile" dari Pulau ke Pulau.”* Finally, the 3rd rank best headline articles consist of two articles with the same grade of 100⁺⁺:

3rd .1. *“Solusi Mengimplementasi Indonesia Maju dari Kawasan Timur Indonesia”*

3rd .2. *“Tol Udara Kepulauan Penunjang Oseanografi Indonesia Emas dari Timur: Cita-Cita yang Tertunda”*

Table 2 depicts the evaluation data of 8 Common articles from the whole 63 published articles of Prof. Elim. According to the analysis of the research data, ones obtain that there are only **two best common articles on top of the whole 8 common articles with the total score is slightly higher than another 6 articles:**

4th .1. *“Tuna Salad Makanan Brain Vitamin di Archipelago diamond”*

4th .2. *“Wibawa Profesor Indonesia: Pemikiran Sederhana Fisikawan”*

The grade in the part of **Heart: Spirit and Soul (Feeling)** embedded in Table 2 is zero (0) due to the unselected either as Selected article (*artikel Pilihan*) or headline article (*artikel Utama*) by the Kompasiana's judges.

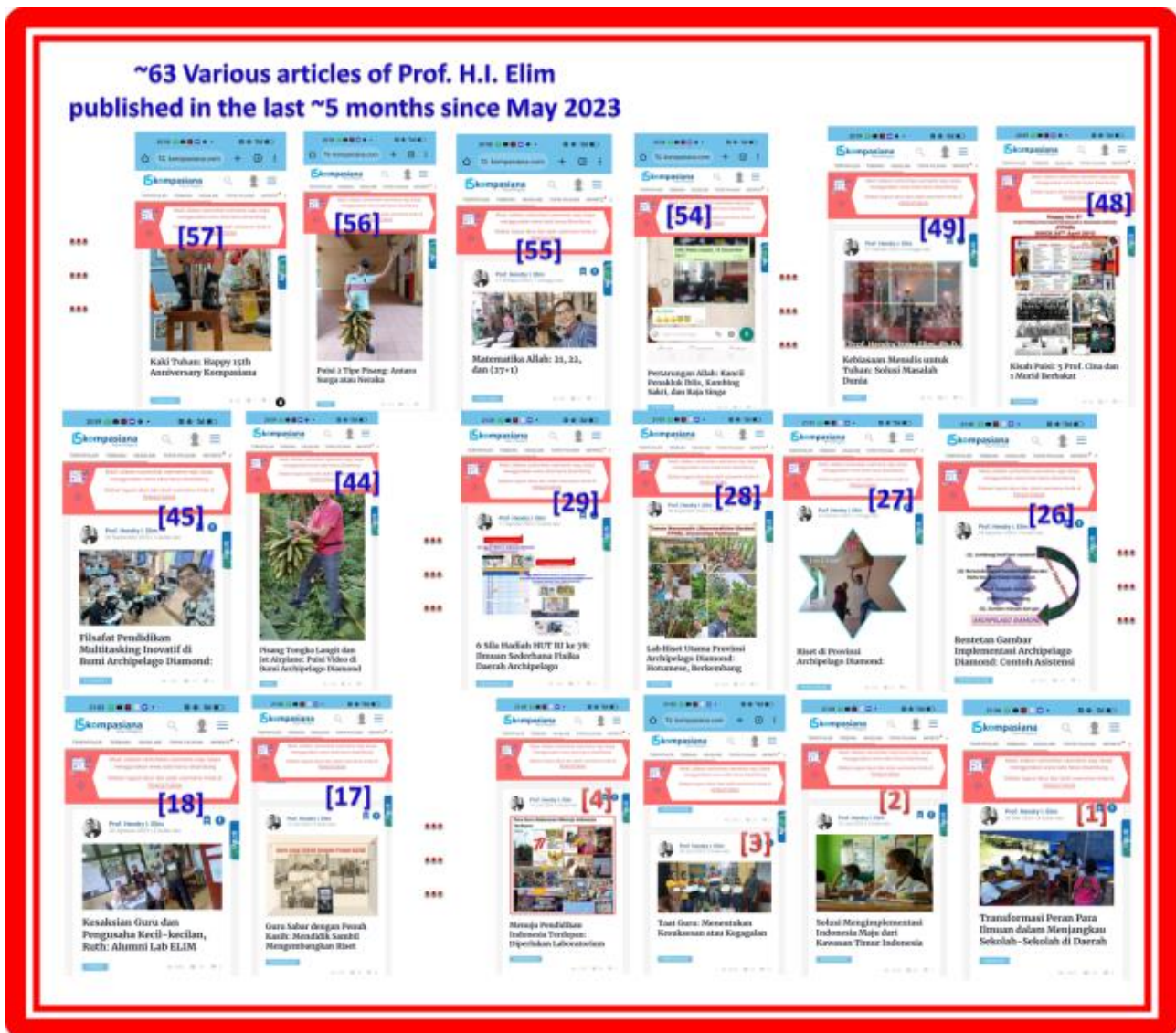


Figure 1. Captures of the whole published articles data from Prof. Elim in **Kompasiana** online Blog (the largest blog on earth with ~4.2. million active writers) since 20 May 2023 up to present. From about 161 days, 63 various articles had been published which means that Prof. Elim's published activity was 1 article in each 2.6 days.

Tabel 1. Data process for novel quality evaluation using a smart language between the online system of Industry 5.0 and Society 5.0: from Prof. Elim's Headline Articles in Kompasiana online Blog.

8 Headline Articles from ~63 various articles of Prof. Elim in Kompasiana's Blog in the last 5 months (Since May 2023 up to present) (open access online blog)	(maximum grade ~33.3) (a)	Brain: Logic		Heart: Spirit and Soul (Feeling)	Impacts: (maximum grade ~33.3) (c)	Fruitful benefits Total Viewers	Final Grade	
		Left Brain Ability (Logic): Types of Like (Interesting, Actual, Inspirative, et cetera)	Right Brain Ability (Art): Every Comment has point or value 1	Selected best works From Expert (Ability to detect the truth)			The grade Interval → The lowest: 0 The highest: 100	{ (a) + (b) + (c) } More like (> 20), More Comment (> 5) & more Viewers (> 500)
[8]. Type: Education <i>Guru Sabar dengan Penuh Kasih: Mendidik Sambil Mengembangkan Riset</i> (Published on 12 July 2023 16:41; Revised on: 13 July 2023 at 10:30 am)	33.3	<u>46</u>	<u>14</u>	33.3	33.3	495	99.9	100 ⁺
[7]. Type: Education <i>Membangun Bangsa-Bangsa dengan EXPO Ferhawanin Sains-Teknologi dengan Bahasa-Bahasa Pendidikan</i> (Published on 4 July 2023 at 14:44; Revised on: 5 July 2023 at 21:43).	33.3	<u>43</u>	<u>10</u>	33.3	33.3	459	99.9	100 ⁺
[6]. Type: Innovation <i>Tol Utara Kepulauan Penanjung Oseanografi Indonesia Emat dari Timur: Cita-Cita yang Terunda</i> (Published on 28 June 2023 at 16:35; Revised on: 29 June 2023 at 00:08 am)	33.3	<u>45</u>	<u>11</u>	33.3	33.3	1832	99.9	100 ⁺⁺
[5]. Type: TRAVEL STORY <i>"Air Bahunji", Wisata Alam yang Menakutkan di Pulau Baru</i> (Published on 19 June 2023 at 02:04; Revised on: 21 June 2023 at 16:04)	33.3	<u>32</u>	3	33.3	33.3	617	99.9	100 ⁺
[4]. Type: Education <i>Menuju Pendidikan Indonesia Terdepan: Diperlukan Laboratorium "Mobile" dari Pulau ke Pulau</i> (Published on 13 June 2023 at 09:42; Revised on: 13 June 2023 at 12:07)	33.3	<u>28</u>	<u>8</u>	33.3	33.3	2358	99.9	100 ⁺⁺⁺
[3]. Type: Education <i>Tantangan Guru: Menentukan Kesuksesan atau Kegagalan</i> (Published on 6 June 2023 at 12:17; Revised on: 8 June 2023 at 07:24)	33.3	<u>24</u>	<u>12</u>	33.3	33.3	4441	99.9	100 ⁺⁺⁺⁺
[2]. Type: Education <i>Solusi Mengimplementasi Indonesia Maju dari Kawasan Timur Indonesia</i> (Published on 2 June 2023 at 06:38 Revised on: 2 June 2023 at 16:38)	33.3	<u>22</u>	<u>7</u>	33.3	33.3	1962	99.9	100 ⁺⁺
[1]. Type: Innovation <i>Transformasi Peran Para Ilmuan dalam Menjangkau Sekolah-Sekolah di Daerah 3T</i> (Published on: 30 May 2023 at 09:54 Revised on: 30 May 2023 at 11:16)	33.3	<u>18</u>	4	33.3	33.3	1852	99.9	100 ⁺

Table 2. Novel quality evaluation with a smart language detection involving unique numbers between the **interaction data between the online system of Industry 5.0 and Society 5.0: from Prof. Elim's Common Articles in Kompasianan online Blog.**

8 Common Articles from ~63 various articles of Prof. Elim in Kompasiana's Blog in the last 5 months (Since May 2023 up to present) (open access online blog)	(maximum grade ~33.3) (a)	Brain: Logic		Heart: Spirit and Soul (Feeling) (maximum grade ~33.3) (b)	Impacts: (maximum grade ~33.3) (c)	Fruitful benefits Total Viewers	Final Grade The grade Interval → The lowest: 0 The highest: 100	
		Left Brain Ability (Logic): Types of Logic (Interesting, Accral, Inspirative, et cetera)	Right Brain Ability (Art): Every Command has point or value 1				Selected best works From Excerpt (Ability to detect the truth)	{ (a) + (b) + (c) }
[1]. Type: Video <i>Kunjungan Para Rawat Kasih, desa Rumah Tiga ke Lab. Elim: "Ereaiuan Allah seperti anak anak"</i> (Published on 30 October 2023 at 12:24; Revised on: 30 October 2023 at 12:52)	33.3	3	1	0	33.3	99	66.6	66.6
[2]. Type: Poem <i>Teknologi berkekuatan Rah Kebenaran: Asli vs. Palsu</i> (Published on 28 October 2023 at 12:47; Revised on: 28 October 2023 at 13:49)	33.3	5	0	0	33.3	33	66.6	66.6
[3]. Type: Poem <i>Puisi 7 Tipe Fisang: Antara Surga atau Neraka</i> (Published on 20 October 2023 at 22:58; Revised on 21 October 2023 at 02:58)	33.3	11	1	0	33.3	125	66.6	66.6
[4]. Type: VIDEO <i>Unik dan Misteri Positif +L.A.B. ELLM: Tanggapan Orangtua & Sahabat Wisudawan</i> (Published on 26 September 2023 at 17:23; Revised on 26 September 2023 at 17:29)	33.3	8	4	0	33.3	285	66.6	66.6
[5]. Type: Education <i>Excellent Education with Archipelago Diamond's Characters: Menuju Indonesia Emas 2045</i> (Published on 16 September 2023 at 15:24; Revised on: 19 September 2023 at 09:02)	33.3	5	2	0	33.3	285	66.6	66.6
[6]. Type: Poem <i>Insuan Kepulauan Bumi Archipelago Diamond: Sejernih Cahayanya</i> (Published on 15 September 2023 at 08:58; Revised on : 19 September 2023 at 08:59)	33.3	9	3	0	33.3	123	66.6	66.6
[7]. Type: VIDEO <i>Tuna Salad Makanan Brain Vitamin di Archipelago Diamond</i> (Published on 11 August 2023 at 09:51; ; Revised on: 12 August 2023 at 21:44)	33.3	17	6	0	33.3	289	66.6	68
[8]. Type: VIDEO <i>Wibawa Profesor Indonesia: Pemikiran Sederhana Fisikawan</i> (Published on 27 June 2023 at 16:47 ; Revised on 27 June 2023 at 16:50)	33.3	17	5	0	33.3	753	66.6	68

IV. CONCLUSION

In summary, this work has opened insight and contributed to evaluate and distinguish the content quality of open access papers/ journals based on 3 important factors of Viewers, Likes, and Commends. The interaction data obtained from Industry 5.0 and Society 5.0 connected online through big data, internet of things and artificial intelligence has made fairly the justification grade of a quality content of an open access work.

Further work related to the implementations of this method particularly in various research cases are recommended so that the quality of this novel evaluation technique can be fully trusted.

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Conflict of Interest

Both authors in this paper declare that they have no any conflict either in financial supports or ideas.

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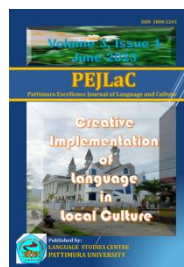


Prof. Hendry Izaac Elim, Ph.D is a remarkable Indonesia physicist with the background of physics of nanoscience and nanotechnology. He obtained his educational background of B.Sc, M.Sc, and Ph.D from Gadjah Mada university (UGM), Bandung institute of Technology (ITB) and National University of Singapore (NUS), respectively. Based on his postdoctoral and research assistant professor experiences at NUS and Tohoku university from ~2006 to 2012, Prof. Elim had been very successful in building the first nanotechnology research center and innovative creation (**PPNRI**) in the eastern part of Indonesia since 24th April 2015. From such simple scientific institution, he already educated over 93 physics B.Sc. who are currently worked and distributed in many different universities and institutions worldwide. During his ~33 years physics career, Prof. Elim has published over 100 high quality papers with h index of 27 in Web of Science/ SCOPUS and citations over 4300 in Google Scholars. The best awards so far that he received were from rector of Pattimura university as the best Indonesia scientist 2017 from Pattimura university and Satya Lancana Karya Satya XX from president of Indonesia. In addition, Prof. Elim has given many invited international talks in many different countries such as USA, Japan, Singapore, Germany, and so forth. Moreover, he has served the international scientific communities as Editor-in-Chief, Associate Editor, and Reviewer of top journals.

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