Science Nature 3(2), pp257-274 (2020)

e-ISSN: 2654-6264

DOI: <https://doi.org/10.30598/SNVol3Iss2pp257-274year2020>

Stamec-Gravitism: A Simple Theoretical Study to Inspire a Prototype Fabrication for Mobile Perpetual Electricity Generator

Yosua Pratama Iswahyudi¹⁻⁴ and Hendry Izaac Elim^{1-6,O}

¹*Theoretical Physics Laboratory (TP Lab.), Department of Physics, FMIPA, UNPATTI,
Jl. Ir. M. Putuhena, Poka, Ambon, Indonesia 97233*

²*Nanomaterials for Photonics Nanotechnology Laboratory (N4PN Lab.), Department of
Physics, Faculty of Mathematics and Natural Sciences (FMIPA), Pattimura University (UNPATTI),
Jl. Ir. M. Putuhena, Poka, Ambon, Indonesia 97233*

³*Nanotechnology Research Center and Innovative Creation (PPNRI-LPPM), and Nanomedicine Garden in
Research and Society Center of Pattimura University, UNPATTI,
Jl. Mr. CHR. Soplanit, Rumah Tiga, Ambon, Indonesia 97234*

⁴*Teaching Laboratory of Electronics and Instrumentation, Physics Department,
Pattimura University, Ambon, Maluku, Indonesia 97233*

⁵*Ambon Academy of Science and Arts (A-ASA), Kapitan Permata Street, Ambon Island, Indonesia.*

⁶*Multidisciplinary Research Center of Excellence (MrCE), Integrated Laboratory (i-LAB), UNPATTI, Jl. Chr.
Soplanit, RumahTiga, Ambon, Indonesia 97234*

Received : 1st May 2020

Revised : 2nd June 2020

Published : 14th June 2020

Copyright @ All rights are reserved by Yosua Pratama Iswahyudi and Hendry Izaac Elim.

Corresponding author: *Email: : hendryelim@gmail.com; hendry.elim@staff.unpatti.ac.id

Abstract

This novel research presents a theoretical work and its simple simulation as a **breakthrough way to derive a mobile electricity apparatus with the weight of ~5 kg generated by an eternal gravity force on earth**. The theoretical research was extracted in such a guide simply by incorporating statistical mechanics, classical mechanics and basic theory of electricity and magnetism. In the above-mentioned smart calculation, **ones obtain the definition of a constant temperature particularly in isothermal enviromental nature**. Furthermore, by solving the whole basic physics relationship with gravity source of power, the electrical energy formula was excerpted with the simplification through a **Stamec-Gravitism: a simple theoretical study to inspire a prototype fabrication for mobile perpetual electricity generator**. Furthermore, the work is sustained with its **simulation results to find out the working physical parameters for normal use of alternating current (AC) electricity system with frequency of 50 Hz and electrical power of ~100 Watt for each proposed apparatus**. This research suggests a **bright future for the light mobile electricity generator for the needy and the poor in every different nations and tribes consisted of thousands of small islands because it does not need battery storage to work in any different conditions and weather so that such novel work can contribute in a large scale to mitigate natural disasters on earth by implementing it in all human being daily activities based energy uses**.

Keywords: Theoretical study, Stamec-Gravitism, Mobile Perpetual, Electricity Generator.

The invented contribution: Novel Mobile Perpetual Electricity Generator using gravity force.

NEW INVENTION

I. Introduction

Integrated works using diversity philosophy [1] in creativities based on **creative and innovative critical thinking and intelligent works [1-19]** according to smart development of renewable energies have become an

important collaborative factors to solve the energy crisis associated with **environmental problems due to the exponential growth of human being up to ~ 8 billion people on earth particularly in the European Union, Russia, United States, China, Indonesia, Australia, India, and Brazil**. Moreover, a protective ecology exploitation sustained by

proper policies and its strategies policies generated and observed by relevant statistical departments and authoritative institutions in a country with good governance could enhance energy efficiency and trim down greenhouse gas emissions mainly from coal, natural gas and oil as well as nuclear energy in order to tackle the world wide global warming [20-51].

Recently, the principal types of renewable energy sources adapted to different stages of brilliant technology development which are free of labors consist of at least the following 7 energies of (i) wind, (ii) solar, (iii) biomass, (iv) geothermal, (v) ocean, (vi) hydropower (water), and (vii) hydrogen, respectively. These all sources of green energy needs excellence storage device like mobile battery with a very effective charge time and strong ability in different weather and conditions [52-57]. Through such implementation of related renewable energy technologies, the reduction of carbon emissions, the share of electricity in daily energy consumption and energy implementation efficiency to society can be dramatically improved in many divergent ways. For example: the use of sea surface current ~ 1.0 m under the ocean surface called as tidal wave has key advantage as a renewable energy source because of the tidal cycles are predictable, unlike conventional wind and solar energy, which are highly susceptible to weather fluctuations. However, everything in the world may be exponentially distorted due to a complex broken environment system closely linked with huge growing of human being industrial companies, business traffics, residential apartments, electrical mobile power generators, and vehicles traffic activities due to the exponential increase of

people in every different countries so that the price of free labor renewable energies become expensive. In addition, graviticity is a kind of electrical generator working based on the vertical move of a very heavy load in about 150 m distant deep underground to obtain a large electrical power ($\sim$ MW). Figure 1 describes a general picture of renewable energies and graviticity (one of gravity technology) according to their nature in universe. On the other hand, Fig. 2 shows the origin of gravity in our expanded universe. The wavelength of gravity is close to infinite or much longer than that in electromagnetic field so that there is no radiation at all. Such type of wave has very weak interaction in comparison with electromagnetic interaction in nature. In addition, gravity has no different in both quantum size such as in atom or nuclear and bulk/ macroscopic size of matters [51]. Furthermore, the existence of gravity has been very precisely measured using a simple pendulum system and interferometry Michelson [7]. The integrated physical parameters that mostly influence gravity are temperature (T), pressure (p) and the interaction speed (v_i) of two related objects in a system inside universe before the big bang (Plack time of $\sim 10^{-43}$ s) or in the physical system of strings interaction according to M-theory.

In present distinguished paper, a simple theoretical study based on a derivation of theoretical understanding depicting in Fig. 3 by incorporating three important classical physics such as statistical mechanics (Stat.Mech.) as a starting point consisted of mechanics and thermodynamics, gravity, and electromagnetism in an integrated mobile system is proposed for the first time to

inspire a prototype fabrication for **mobile perpetual electricity generator**. The aim of the use of gravity energy is solely because of the consideration on its eternal presence in universe with its super giant in super weak radiation, free in eternal nature, and no harmful radiation at all. The theoretical physics works with the output name of such interesting mobile energy device were **Stamec-Gravitism** extracted using a deep understanding of the collaboration among **Stat. Mech.**, classical rotation mechanics linked with gravity, and electromagnetism system associated with the former two. Such novel invention is very different from **graviticity** which was generated using a **steady state of vertical heavy system machine in a deep ~150 m underground**. In addition, it is **free of the use in battery storage to work in any different circumstances**. This research suggests a **bright future for the light mobile electricity generator for the needy and the poor in every different nations and tribes consisted of thousands of small islands because such novel work can contribute in a large scale impact to mitigate natural disasters like floods, hurricane, tornado, earthquakes, unstable ocean impacts, and so forth on earth generated by the complicated problems of daily use energies by human being as well as their culture and mental problems [58-60].**

Figure 1. Flowchart of renewable energies and graviticity system: free labor electrical energy source with their interconnections.

II. Theoretical Method and Prototype Design

A theoretical model with its simplification was derived according to **Fig. 4** consisted of **4 steps** as follows: **(1• I)** Proposed theoretical prediction by linking all possible effective ways to solve the use of gravity as energy source, **(2• II)** and **(3• III)** are calculation procedures by employing the understanding among statistical mechanics, classical mechanics of rotation system and electricity and magnetism knowledge, as well as **(4• IV)**, a design prototype of possible perpetual mobile device.

Figure 4. A simple prototype design of Stamec-Gravitism perpetual mobile device based on (1• I) proposed theoretical prediction, (2• II) and (3• III) calculation procedures, as well as (4• IV) a design prototype.

2.1. Proposed statistical mechanics theory for its links with gravity

The inset in **Fig. 4** shows detail theoretical physics of research process in extracting the use of gravity as electrical generator source. The starting point of simple mathematical physics of universal gravity is defined as follows

$$\mathbf{F}_g = -G \frac{m_{bG} m_E}{r^2}, \quad (1)$$

where $\mathbf{F}_g$ is gravity force (N),
 G is universal gravity constant

($G = 6,67384 \times 10^{-11} \text{ N} \left(\frac{\text{m}}{\text{kg}}\right)^2 = 6,67384 \times 10^{-11} \text{ m}^3 \text{ kg}^{-1} \text{ s}^{-2}$), m_{bG} is mass of energy generator (Kg), m_E is earth mass ($\sim 5.972 \times 10^{24} \text{ Kg}$), and r is the distance of the **Stamec-Gravitism generator to the earth core (m)**. In addition, the average earth radius (r_E) is about $6371 \times 10^3 \text{ m}$.

The work associated with such gravity force as described in **Eq. (1)** can be written in the following **Eq. (2)**:

$$\mathbf{W}_{bG} = \mathbf{F}_g d\mathbf{s}, \quad (2)$$

where $\mathbf{W}_{bG}$ is Work (Joule), and $d\mathbf{s} \sim d\mathbf{r}$ is the position shift (m). By integrating **Eq. (2)**, we find out **Eq. (3)**:

$$\mathbf{W}_{bG} = \int_{r_i}^{r_f} -G \frac{m_{bG} m_E}{r^2} d\mathbf{r}, \quad (3)$$

where r_f is final distance of work (m), and r_i is the initial distance (m). The result of **Eq. (3)** is shown in **Eq. (4)**:

$$\mathbf{W}_{bG} = -G m_{bG} m_E \left[-\frac{1}{r_f} + \frac{1}{r_i} \right]. \quad (4)$$

Equation (4) shows that the gravitational work happens when 2 masses are attracted into their

center of mass proportional to the shift reversed of their position change.

In order to derive a relationship between the mass of energy generator energi ($m_{bG}(S, H, T)$) and temperature of system, **Eq. (5)** was used as a common thing in physics

$$\mathbf{Q} = m_{bG} C \Delta T, \quad (5)$$

where $\mathbf{Q}$ is heat (Joule), C is specific heat (J/Kg.K), and ΔT is temperature change (K). By a special work of physical understanding, we obtain a **definition of temperature in the case of isothermal** (a physical system under a constant temperature) or $\mathbf{Q} = \mathbf{W}_{bG}$ due to **the internal energy ~ 0** in conjunction with the theorem derived by a Germany scientist, **Rudolf Clausius (1822 – 1888)** in thermodynamics, **$dQ = TdS$ is the amount of heat absorbed during the transformation**, where dS is entropy change (J/K) as depicted in **Eq. (6)**:

$$\mathbf{T} = \frac{T_f - T_i}{\text{Ln} T_f - \text{Ln} T_i} = \frac{\Delta T}{\text{Ln} \left(\frac{T_f}{T_i} \right)}. \quad (6)$$

The beauty definition of this hidden constant temperature for thousand of years in **Eq. (6)** is for the first time shown that temperature is actually a division between the temperature change ($\Delta T = T_f - T_i$) and the logarithm (Ln)

of (T_f/T_i). For example: **a measured constant temperature $T = (34.10 \pm 0.05) \text{ C}^0$** is actually defined as

$$\begin{aligned}
\frac{T_f - T_i}{\ln T_f - \ln T_i} &= \frac{(34.15 - 34.05)C^0}{\ln(34.15) - \ln(34.05)} \\
&= \frac{0.10 C^0}{3.53076 - 3.52783} \\
&= \frac{0.10 C^0}{0.00293} = 34.13 C^0.
\end{aligned}$$

Such simple discovery illustrates that the creator (**GOD/ YaHWeH**) is **THE ONLY accurate inventor of His universe** [58]. After such deep intellectual knowledge, we will then derive the interconnections among m_{bG} (S , H , T) with its entropy, S_{bG} and specific heat, C_{bG} under the influence of certain temperature. Equation (7) shows an original thinking with 3 simple steps of mathematical work for such investigation.

$$\text{Step 1. } [dS_{bG}] = \frac{dQ_{bG}}{T} = \frac{m_{bG}C_{bG}dT}{T},$$

$$\text{step 2. } \int dS_{bG} = \int_{T_i}^{T_f} \frac{m_{bG}C_{bG}dT}{T},$$

$$\text{step 3. } S_{bG} = m_{bG} [C_{bG} (\ln T_f - \ln T_i)], \text{ or}$$

$$m_{bG} = S_{bG} / [C_{bG} (\ln T_f - \ln T_i)]. \quad (7)$$

The result in **Eq. (7)** explains that entropy is created by a mass and its specific heat constant under a temperature change.

On the other hand, enthalpy of the *Stamec-Gravitism* device is related to the total energy (E_{tot}) plus the work (W_{bG}) as rewritten in **Eq. (8)**.

$$H_{bG} = E_{tot} + W_{bG}, \quad (8)$$

where H_{bG} is enthalpy (J) of designed rotor under gravity influence as shown in **Fig. 4**, and E_{tot} is the total energy (J). Furthermore, from

the total energy in the proposed *Stamec-Gravitism* device, $E_{tot} = E_k + E_p$, the kinetic rotation energy can be extracted as shown in **Eq. (9)** in which the rotation inertia moment, I_{SG} will be extracted later on in **Sec. 2** according to the prototype design of the *Stamec-Gravitism*:

$$E_k = \frac{1}{2} m_{bG} v_g^2, \quad (9)$$

where v_g is the system velocity (m/s). Finally

such velocity of v_g can be derived and written

in its relationship with gravity, G as follows

$$v_g = \int_{t_i}^{t_f} -G \frac{m_E}{r_E^2} dt = -G \frac{m_E}{r_E^2} (t_f - t_i), \quad (10)$$

where t_f is final time (s) of system, and t_i is the initial time (s).

By substituting **Eq. (10)** into **Eq. (9)**, we find

$$E_k = \frac{1}{2} m_{bG} \left(G \frac{m_E}{r_E^2} \right)^2 [t_f - t_i]^2. \quad (11)$$

Whereas the potential energy of E_p in the *Stamec-Gravitism* is defined as

$$E_p = m_{bG} g r, \quad (12)$$

where $g = dv/dt$ and g is the gravity constant in which the device was located, for example on earth, $g_E \sim 9.8 m/s^2$. As a matter of facts, the relationship between G and g in earth location is found as follows

$$g_E = -G \frac{m_E}{r_E^2}. \quad (13)$$

The energy potential is finally obtained by substituting **Eq. (13)** into **Eq. (12)**:

$$E_p = -G[m_{bG}m_E] \frac{r}{r_E^2}. \quad (14)$$

Finally, the total energy as shown in **Eq. (15)** is the sum of **Eq. (11)** and **Eq. (14)**.

$$E_{tot} = \frac{1}{2} m_{bG} \left(G \frac{m_E}{r_E^2} \right)^2 [t_f - t_i]^2 - G[m_{bG}m_E] \frac{r}{r_E^2}. \quad (15)$$

The total enthalpy can be extracted by the summation of **Eq. (15)** and **Eq. (4)** in the following new form of **Eq. (8)**:

$$\begin{aligned} H_{bG} &= \frac{1}{2} m_{bG} \left(G \frac{m_E}{r_E^2} \right)^2 [t_f - t_i]^2 \\ &\quad - G[m_{bG}m_E] \left[\frac{r}{r_E^2} \right] \\ &\quad - G[m_{bG}m_E] \left[-\frac{1}{r_f} + \frac{1}{r_i} \right] \\ &= \frac{1}{2} m_{bG} \left(G \frac{m_E}{r_E^2} \right)^2 [t_f - t_i]^2 \\ &\quad - G[m_{bG}m_E] \left[\frac{r}{r_E^2} - \frac{1}{r_f} + \frac{1}{r_i} \right] \\ &= m_{bG} \left[\frac{1}{2} \left(G \frac{m_E}{r_E^2} \right)^2 [t_f - t_i]^2 - \right. \\ &\quad \left. 2G m_E \left[\frac{r}{r_E^2} - \frac{1}{r_f} + \frac{1}{r_i} \right] \right]. \quad (16) \end{aligned}$$

Therefore, **Eq. (16)** explains the sum total of both energy and work in the *Stamec-Gravitism* apparatus. This enthalpy has a close link with free energy Gibbs discovered by **Josiah Willard Gibbs (1839-1903)**, temperature and entropy as described in the following free Gibbs energy:

$$G_{Gibbs} \equiv H_{bG} - S_{bG}T, \quad (17)$$

where G_{Gibbs} is free Gibbs energy(J). Thus, by substituting **Eq. (16)**, **Eq. (6)** and **Eq. (7)** into **Eq.(17)**, one gets

$$\begin{aligned} G_{Gibbs} &\equiv \frac{1}{2} m_{bG} \left(G \frac{m_E}{r_E^2} \right)^2 [t_f - t_i]^2 \\ &\quad - G[m_{bG}m_E] \left[\frac{r}{r_E^2} - \frac{1}{r_f} + \frac{1}{r_i} \right] \\ &\quad - [T_f - T_i][m_{bG} C_{bG}]. \quad (18) \end{aligned}$$

Equation (18) shows that the free Gibbs energy is actually enthalpy without the influence of entropy and temperature. Another free Helmholtz energy, A invented by **Hermann Von Helmholtz (1821-1894)** was a free potential energy, U excluded by the entropy, S and temperature, T and defined as follows

$$A \equiv U - S_{bG}T, \quad (19)$$

where the free potential energy, U based on the first law of thermodynamics is the total sum of heat and work,

$$U = Q + W_{bG}. \quad (20)$$

According to the first law of thermodynamics, the internal energy, $\Delta E_{int} = Q - W$. While we can prove that by understanding the free potential energy, such free Helmholtz energy, A equals to W_{bG} as shown in **Eq. (21)**.

$$\begin{aligned} A &\equiv Q + W_{bG} - S_{bG}T. \\ &\sim m_{bG} [C_{bG}] [\Delta T] - Gm_{bG}m_E \left[-\frac{1}{r_f} + \frac{1}{r_i} \right] \\ &\quad - m_{bG} [C_{bG} (\text{Ln } T_f - \\ &\quad \text{Ln } T_i)] \left[\frac{\Delta T}{\text{Ln } T_f - \text{Ln } T_i} \right] \end{aligned}$$

$$\sim -Gm_{bG}m_E \left[-\frac{1}{r_f} + \frac{1}{r_i} \right]$$

$$A \sim W_{bG}. \quad (21)$$

Equation (21) proves that a free Helmholtz energy is proportional to the work of a system.

2.2. Proposed simple rotation mechanical theory for designing the Stamec-Gravitism Apparatus

Based on **Fig. 4**, a simple rotation mechanical theory for such proposed design of *Stamec-Gravitism* apparatus was derived. The key point in such eternal rotor which moves continuously in an eternal time precisely is due to the presence of mysterious gravity with its infinite wavelength associated with no radiation impacts to surrounding environment of time and space. Moreover, such gravity can penetrate into atomic size system without changing the microscopic physics nature due to its extremely weak interaction. The only physical parameters that mostly influence gravity are an integrated temperature (T), pressure (p) and the interaction speed (v_i) of two related objects in a system inside universe. Therefore, according to this deep understanding in gravity, we could propose an eternal rotor system that can generate electricity in a simple mobile electricity generator from one place to another place or from planet to another planet and so forth. We named it as *Stamec-Gravitism perpetual mobile device* for electricity generation. Starting from an ordinary design as depicted in the right inset part of **Fig. 4**, we chose **two types of integrated cylindrical rotors with the small long-core and wide**

thin-shell radius of R_2 and R_1 , respectively. Therefore, when such particular outer part in the rotor system was hit by small spherical solids due to unstoppable gravity force, we then can derive the total inertia moment, I_{SG} in the following equation:

$$I_{SG} = \frac{1}{2} [R_1^2(M_1 + M_2) + M_1 R_2^2], \quad (22)$$

where I_{SG} is the enertia moment of **Stamec-Gravitism perpetual mobile device Inersia ($kg\ m^2$)**, M_2 is the core cylinder mass (kg), and M_1 is the shell cylinder mass (kg). As a matter of fact, the kinetic energy of the rotor rotation can be calculated with the well known formula in **Eq. (23)**.

$$E_{rot.k} = \frac{1}{2} I_{SG} \omega^2, \quad (23)$$

where ω is the **angular speed or rotation velocity**, $\omega = v/r$ (rad/s). This rotational kinetic energy is propotional to the thermodynamic kinetic energy, E_k in **Eq. (11)**. The angular speed is then extracted to be

$$\frac{1}{2} I_{SG} \omega^2 = \frac{1}{2} m_{bG} \left(G \frac{m_E}{r_E^2} \right)^2 [t_f - t_i]^2,$$

$$\omega = \frac{\sqrt{\frac{1}{2} m_{bG} \left(G \frac{m_E}{r_E^2} \right)^2 [t_f - t_i]^2}}{\sqrt{\frac{1}{2} [R_1^2(M_1 + M_2) + M_1 R_2^2]}}$$

$$= \frac{\sqrt{m_{bG} \left(G \frac{m_E}{r_E^2} \right)^2 [t_f - t_i]^2}}{\sqrt{[R_1^2(M_1 + M_2) + M_1 R_2^2]}} \quad (24)$$

In addition, the torsion of the rotation in Stamec-Gravitism perpetual mobile device is denined as $\tau_{SG} = \mathbf{r}_{tot} \times \mathbf{F}_g$, where torsion is in Nm unit and $\mathbf{r}_{tot}$ is the total radius length in the Stamec-Gravitism . This torsion can be simplified as

$$\tau_{SG} = \mathbf{r}_{tot} \mathbf{F}_g \sin(\omega t), \quad (25)$$

where $\mathbf{r}_{tot} = R_1$. By inserting Eq. (24) and Eq. (1) into Eq. (25), we obtain

$$\tau_{SG} = -G \frac{\mathbf{r}_{tot} \mathbf{m}_{bG} \mathbf{m}_E}{r^2} \sin \left(\sqrt{\frac{m_{bG} \left(G \frac{m_E}{r_E^2} \right)^2 [t_f - t_i]^2}{[R_1^2(M_1 + M_2) + M_1 R_2^2]}} t \right). \quad (26)$$

The angular momentum of such *Stamec-Gravitism* can thus be written as follows

$$L_{SG} = I_{SG} \omega$$

$$L_{SG} = \frac{1}{2} [R_1^2(M_1 + M_2) + M_1 R_2^2] \left(\sqrt{\frac{m_{bG} \left(G \frac{m_E}{r_E^2} \right)^2 [t_f - t_i]^2}{[R_1^2(M_1 + M_2) + M_1 R_2^2]}} t \right). \quad (27)$$

III. Results and Discussion

3.1. Electrical power generated by perpetual mechanical energy system in *Stamec-Gravitism* Device

In accordance with Fig. 4, there are two types of mechanical energy system and electrical system connected to perpetual Stamec-Gravitism rotor. Such common basic physics system is worked based on the eternal rotation of *Stamec-Gravitism* rotor which moves the electrical part and then generates electricity as the output. The mechanical power, P_{SG} (Watt) of electricity can then be derived as follows

$$P_{SG} = \tau_{SG} \omega,$$

$$= -G \frac{\left(R_1 m_{bG} m_E \sqrt{\frac{m_{bG} \left(G \frac{m_E}{r_E^2} \right)^2 [t_f - t_i]^2}{[R_1^2(M_1 + M_2) + M_1 R_2^2]}} \right) \sin \left(\left(\sqrt{\frac{m_{bG} \left(G \frac{m_E}{r_E^2} \right)^2 [t_f - t_i]^2}{[R_1^2(M_1 + M_2) + M_1 R_2^2]}} t \right) \right)}{r^2} \quad (28)$$

Therefore, the perpetual mechanical energy, E_m (Joule) $\sim P_{SG} t$ in conjunction with the electricity part can be obtained as

$$E_m = \left(R_1 m_{bG} m_E \sqrt{\frac{m_{bG} \left(G \frac{m_E}{r_E^2} \right)^2 [t_f - t_i]^2}{[R_1^2(M_1 + M_2) + M_1 R_2^2]}} \right) \sin \left(\left(\sqrt{\frac{m_{bG} \left(G \frac{m_E}{r_E^2} \right)^2 [t_f - t_i]^2}{[R_1^2(M_1 + M_2) + M_1 R_2^2]}} t \right) \right) = -G \cdot t \quad (29)$$

where r is the distance (m) of the *Stamec-Gravitism* generator to the earth core.

3.2. The relationship between electromotive force (*emf*) and gravity energy

The electrical device which is worked based on the power in perpetual mechanical energy designed rotor in *Stamec-Gravitism* device system in the inset of **Fig. 4** was chosen according to Michael Faraday electricity understanding of electromotive force (*emf*) with electromagnetic oscillations induced electric field and magnetic flux. Such natural logic of thought obeys the following formula:

$$\Phi = B.A.\cos(\omega t), \quad (30)$$

where Φ is magnetic flux (*weber*), B is magnetic field (*Tesla*) and A is the area of electric field system (m^2). To derive the resulted voltage (ε) in the *Stamec-Gravitism* device system, the use of both the first and second laws of Faraday is necessary stated that the magnetic change in a circuit wire causes the *emf*, and the *emf* in a close electrical circuit is propotional to the defferential flux velocity of magnetic field in certain time, respectively. Therefore, one obtains the following link:

$$\varepsilon = -N \frac{d\Phi}{dt}, \quad (31)$$

where N is the number of turns per unit length of the solenoid in the electricity device embedded in the *Stamec-Gravitism* device. By substituting **Eq. (30)** into **Eq. (31)** and then

differentiate it, the voltage ε is simplified as follows

$$\begin{aligned} \varepsilon &= -N \frac{d(B.A.\cos \omega t)}{dt} \\ &= N.B.A.\omega \sin(\omega t). \end{aligned} \quad (32)$$

Finally, the detail solution of resulted ε in the *Stamec-Gravitism* apparatus can be found by inserting **Eq. (24)** is the the following form:

$$\varepsilon = N.B.A. \sqrt{\frac{m_{bG} \left(\frac{G m_E}{r_E^2} \right)^2 [t_f - t_i]^2}{[R_1^2(M_1 + M_2) + M_1 R_2^2]}} \sin \left(\sqrt{\frac{m_{bG} \left(\frac{G m_E}{r_E^2} \right)^2 [t_f - t_i]^2}{[R_1^2(M_1 + M_2) + M_1 R_2^2]}} t \right). \quad (33)$$

Moreover, the electricity current, $I = \frac{\varepsilon}{R}$ in such *Stamec-Gravitism* apparatus is calculated as mentioned below:

$$I = \frac{N.B.A. \sqrt{\frac{m_{bG} \left(\frac{G m_E}{r_E^2} \right)^2 [t_f - t_i]^2}{[R_1^2(M_1 + M_2) + M_1 R_2^2]}} \sin \left(\sqrt{\frac{m_{bG} \left(\frac{G m_E}{r_E^2} \right)^2 [t_f - t_i]^2}{[R_1^2(M_1 + M_2) + M_1 R_2^2]}} t \right)}{R}, \quad (34)$$

where R here is the system resistant in unit of *Ohm*. The total electrical power, P_E (*Watt*) produced by the apparatus is then obtained as

$$P_E = \varepsilon I = I^2 R = \left[\frac{N.B.A. \sqrt{\frac{m_{bG} \left(\frac{G m_E}{r_E^2} \right)^2 [t_f - t_i]^2}{[R_1^2(M_1 + M_2) + M_1 R_2^2]}} \sin \left(\sqrt{\frac{m_{bG} \left(\frac{G m_E}{r_E^2} \right)^2 [t_f - t_i]^2}{[R_1^2(M_1 + M_2) + M_1 R_2^2]}} t \right)}{R} \right]^2 R. \quad (35)$$

While the total electrical energy, $E_E = P_E t$ (*Joule*) is finally realized as **Eq. (36)**.

$$E_E = P_E t = \left[\frac{N.B.A. \sqrt{\frac{m_{bG} \left(\frac{G m_E}{r_E^2} \right)^2 [t_f - t_i]^2}{[R_1^2(M_1 + M_2) + M_1 R_2^2]}} \sin \left(\sqrt{\frac{m_{bG} \left(\frac{G m_E}{r_E^2} \right)^2 [t_f - t_i]^2}{[R_1^2(M_1 + M_2) + M_1 R_2^2]}} t \right)}{R} \right]^2 t, \quad (36)$$

3.3. Simple calculation with its simulation to obtain the optimum size of mobile *Stamec-Gravitism* device

By simulating Eq. (35) and Eq. (36), we obtain the best physical parameters to harvest the output AC power ~100 W with frequency 50 Hz as marked blue color and described in Table 1. The results show that this mobile *Stamec-Gravitism* device can be developed and applied in many different areas conveniently with a cheap price of mass productions.

Table 1. The best physical parameters for *Stamec-Gravitism* perpetual mobile device in harvesting output AC power ~100 W with frequency 50 Hz.

M_1 (Kg)	M_2 (Kg)	R_1 (m)	R_2 (m)	ω (Hz)	Δt (ns)	t (s)	ω (m/s)	R (Ω)	P (W)	E (J)
3.9	1.1	0.3	0.02	50.16864	0.072	60	15.05059	0.55	99.61748	5977.04874
4.0	1.0	0.3	0.02	50.16641	0.072	60	15.04992	1.00	40.05074	2403.04436
4.1	0.9	0.3	0.02	50.16419	0.072	60	15.04926	2.00	12.30228	738.13673
4.2	0.8	0.3	0.02	50.16197	0.072	60	15.04859	3.00	2.90846	174.50757
4.3	0.7	0.3	0.02	50.15975	0.072	60	15.04793	5.00	-1.461	-87.66021
4.4	0.6	0.3	0.02	50.15753	0.072	60	15.04726	7.00	-3.31463	-198.87753
4.5	0.5	0.3	0.02	50.15531	0.072	60	15.04659	9.00	-4.29834	-257.90017
4.6	0.4	0.3	0.02	50.15309	0.072	60	15.04593	10.0	-5.34788	-320.87303
4.7	0.3	0.3	0.02	50.15087	0.072	60	15.04526	12.0	-5.61018	-336.61053

IV. Conclusion

Every important work is not that easy to solve and realize due to a must understanding deeply by incorporating the beauty of critical thinking with the multitasking impacts to others. Here, our summary in a picture is a proposed *Stamec-Gravitism* derived by understanding a simple theoretical study to inspire a prototype fabrication for mobile perpetual electricity generator has been in detail explained with the prototype design is shown in **Fig. 5** as a part of integrated **Fig. 4**. In addition, we also provide an open insight of wide multitasking applications of such device in every actionable insight implementation of human being daily use of energy as described in **Fig. 6**. **While the output energy can be adjusted higher than 100 watt AC of ~50 Hz depending on the materials quality of *Stamec-Gravitism* and its modified mobile design.**

Figure 5. A proposed *Stamec-Gravitism* with

free of radiation in order to mitigate any disasters on earth by generating mobile eternal electricity from one place to another place easily, from island to island conveniently, and from continent to continent handily as well as from a planet to another planet appropriately.

Figure 6. Proposed multitasking applications of *Stamec-Gravitism Mobile Perpetual Electricity Generator* in all daily uses energy of human being activities.

ACKNOWLEDGEMENT

H.I.E and **Y.P.I.** thank to Prof. Dr. M.J. (Nus) Sapttenno, one of the creative and innovative rector of Pattimura university due to his wide insight and open minded in supporting both research work and business since it was built on 23rd April 1963. Part of this work was supported by a **self-funding research grant** of **Nanotechnology Research Center and Innovative Creation** (PPNRI-UNPATTI, URL: <http://lppm.unpatti.ac.id/pusat-pnri>) about new energy research.

Additional information

The authors declare no competing financial interest as well as any conflict of interest.

References

- [1]. H.I. Elim, E. Kembauw, R.H. Siahainenia, Jacobus S.A. Lamerkabel, A.M. Sahusilawane, S.W. Djoko, and B. Seta, Heavenly Small Islands Simple Technology & Its Cultural Economy Impacts in Maluku, Indonesia: a New Proposed Multitasking Philosophy in Diversity (MPD), *Science Nature* 2(4), pp.192-207 (2019).
- [2]. H.I. Elim, Nanomedicine with Its Multitasking Applications: A View for Better Health, *IJHMCR* 2(02), 353-357 (2017).
- [3]. H.I. Elim, Physics of Multitasking Nanomedicine, *International Journal of Health Medicine and Current Research (IJHMCR)* 2(03), 509-519 (2017).
- [4]. H. I. Elim, Theory, Implementation and the Nature of Truth (TIN) in Nanoscience, Nanotechnology, and Nanomedicine (NNN): From the Beginning of Universe to nm Scale Behavior, *Kenkyu Journal of Nanotechnology & Nanoscience* 5, 33-36 (2019).
- [5]. H. I. Elim, Multitasking Herbal Nanomedicine: A Frontier Report, *Nanoscale Reports* 2(1), 22-30 (2019).
- [6]. H.I. Elim, The First 1000 Atoms in Healing Process: From Nanotechnology to Nanomedicine, *IJHMCR* 3(04), 1044-1046 (2018). Doi: [10.22301/ijhmcr.2528-3189.1044](https://doi.org/10.22301/ijhmcr.2528-3189.1044)
- [7]. H.I. Elim, *Metode Fisika Eksperimen: Pelengkap Teori Fisika*: "To be Perfect like The 1 Who Created Our Incredible Universe", Pattimura university press, Indonesia, 1st Edition, pp. 1-155 (2019). ISBN: 978-602-5943-05-8.
- [8]. H.I. Elim, and A.L. Mapanawang, Electronics Physical System of Large Antioxidant Structure in Herbal Medicine based Zingiberaceae Fruit: Understanding and Application, *Nanotechnology & Applications* 1(1), (2018). DOI: [10.33425/2639-9466.1004](https://doi.org/10.33425/2639-9466.1004) (ISSN: 2639-9466)
- [9]. H.I. Elim (*Elim Heaven*), A.L. Mapanawang, and M.V. Reddy, A Creative Proposal to Improve Woman and Child Health: from the Knowledge of Physical Nanoscience to Nanotechnology Implementation and Products, *CPQ Women and Child Health* 1(6), 01-11 (2019).
- [10]. H.I. Elim, and A.L. Mapanawang, The attractive differences of two types of herbal medicine from zingiberaceae fruit (*golobe* Halmahera), *IJHMCR* 3(01), 799-806 (2018).
- [11]. A.L. Mapanawang, and H.I. Elim, Unique Chemical Bonding Behavior of Love Herbal Medicine and Its Conjunction with Chemotherapy Drug, *J. Nanomedicine and Nanotechnology* 9(3), 1000503 (2018).
- [12]. H.I. Elim, Scientific Breakthrough Based on Natural Creation: "1 Diamond with 7 Eyes", *COJ Reviews and Research* 1(1), pp. 1-4 (2018).
- [13]. Hendry Izaac Elim (*Elim Heaven*), The Discovery of New *Golobe* and Its Amazing Healing System, *Science Nature* 2(1), pp. 66-70 (2019). DOI: <https://doi.org/10.30598/SNVol2Iss1pp066-070y2019>
- [14]. A.L. Mapanawang, and H.I. Elim, Chemical Bonding Character of Love Herbal Medicine: A Prominent Medicine Candidate for Preventing HIV virus, *Nanotechnology & Applications* 1(1), 1-4 (2018). DOI: 10.33425/2639-9466.1003 (ISSN: 2639-9466).
- [15]. I.F. Seay and H.I. Elim, The Observation of Fast, Long Term, and Stable Performance of Toxic Absorption in Herbal Blessing Product Based on *Galoba* Maluku (Zingiberaceae Fruits), *Science Nature* 2(2), pp. 122-127 (2019). DOI: <https://doi.org/10.30598/SNVol2Iss2pp114-127y2019>
- [16]. H.I. Elim, Basic Universe of Molecular Electronics System (MES): Introduction and its Applications in Harvesting Daily Life, *Science Nature* 2(4), pp. 232-238 (2019).
- [17]. H.I. Elim, From Molecular Electronics System (MES) to Advanced Nanotechnology: A Progress of Frontier Development, *Nano Progress* 2(4), pp. 7-11 (2020).
- [18]. H.I. Elim, Is Your Brain Strong Enough to Solve Hard Problems? : Brain Vitamins as a Simple Example for Multitasking Nanotechnology Scientist, *Science Nature* 3(1), pp. 244-256 (2020).
- [19]. H. v. Helmholtz, *On the Thermodynamics of Chemical Processes*, Berlin, (1891).
- [20]. A. Einstein, *Die Feldgleichungen der Gravitation*, *Königlich Preußische Akademie der Wissenschaften* 6, pp. 844-847 (1915).
- [21]. A. Einstein, *Relativity the special and general theory*, New York: Henry holt and company, (1920).
- [22]. K. Huang, *Statistical Mechanics*, Canada: John Wiley & Sons, (1976).
- [23]. S. Weinberg, *Gravitational and Cosmology: Principle and Application of The General Theory Relativity*, USA: John Wiley & Sons, (1972).

- [24]. J. W. Gibbs, A Method Of Geometrical Representation Of The Thermodynamic Properties Of Substances By Means Of Surface, *Transactions of The Connecticut Academy* vol. II, pp. 382-404 (1873).
- [25]. I. Newton, *Philosophiæ Naturalis Principia Mathematica*, England, U.K.: global grey (2018), (1728).
- [26]. O. Lodge, The Geometrisation of Physics, and its supposed Basis on the Michelson-Morley Experiment. *Nature*, p. 797, Feb 17 (1921).
- [27]. D. L. Hotson, Dirac's Equation and the Sea of Negative Energy, *Infinite Energy*, issue 43, p. 4 (2002). It was noted by H. C. Dudley in *Smithsonian* 5 (7), October (1974), that, "Dirac advised a group of U.S. physicists to stop looking for more and more particles and direct their efforts elsewhere."
- [28]. O. Lodge, University of Birmingham, March 25, 1911. Letters to the Editor, *Nature* 87, March 30 (1911).
- [29]. M. Faraday, *Experimental researches in electricity*, Vol. 3, *Dover Publications Inc., New York*, pp 161-168 (1965).
- [30]. G. B. Brown, Gravitational and Inertial Mass, *American Journal of Physics* 28, 475 (1960).
- [31]. R. T. Cahill, *The Einstein Postulates: 1905-2005—A Critical Review of the Evidence*, "There is a detectable local frame of reference or 'space,' and the solar system has a large observed galactic velocity of some $420 \pm 30 \text{ km/s}$ in the direction (RA=5.2hr, Dec= -67deg) through this space."
- [32]. See for example, H. C. Dudley, Is there an ether? *Industrial Research*, pp. 43-6, Nov. 15 (1974).
- [33]. S. Mitton, Reviewing The Milky Way by Stanley L. Jaki, *New Scientist*, p. 38, 5 July (1973).
- [34]. Haliday, Resnick and J. Walker, *Principle of Physics Ninth Edition International Student Version*, USA: John Wiley & Sons, (1989).
- [35]. R. D'Inverno, *Introducing Einstein's relativity*, Oxford: Oxford University Press, (1992).
- [36]. A. K. T. Assis' and R. A. Clemente, The Ultimate Speed Implied by Theories of Weber's Type, *Int. J. Theoretical Physics*. 31(6), 1063-73 (1992).
- [37]. G. E. Hinton and R. S. Zemel, "Autoencoders, minimum description length and Helmholtz free energy,," *Advances in Neural Information Processing Systems*, p. 3-10 (1994).
- [38]. R. Sansbury, *The Infinite or Finite Speed of Gravity and Light?*, CP Institute, N.Y., p. 123 (1994).
- [39]. P. J. E. Peebles and B. Ratra, *The Cosmological Constant and Dark Energy*, United States America: American Physics Society, (2003).
- [40]. M. Wild, A. Ohmura and K. Makowski, Impact of global dimming and brightening on global warming, *Geophysical Research letter* 34 (4), (2007).
- [41]. D. Tsousis, Perpetual Motion Machines, *Jestr*, pp. 53-57 (2008).
- [42]. M. S. Hossen, M. T. Islam and S. Hossain, Design And Fabrication Of A Gravity Powered Light, in *ICMERE2015-PI-254*, Chittagong, Bangladesh (2015).
- [43]. W. Thornhill, The Z-Pinch Morphology of Supernova 1987A and Electric Stars, *IEEE Transactions on Plasma Science* 35(4), pp. 832-844, August (2007).
- [44]. Halton Arp, What has Science Come to?, *Journal of Scientific Exploration* 14(3), pp. 447-454 (2000).
- [45]. L. Smolin, *Einstein's Lonely Path*, *Discover* 30/9/2004, "Special relativity was the result of 10 years of intellectual struggle, yet Einstein had convinced himself it was wrong within two years of publishing it. He had rejected his theory, even before most physicists had come to accept it." discovermagazine.com/2004/sep/einsteins-lonely-path/
- [46]. S. J. Crothers, A Brief History of Black Holes, *Progress in Physics* 2, pp. 54-7, April (2006), See online at www.sjcrothers.plasmaresearch.com/index.html "Einstein did not understand the basic geometry of his gravitational field. Other theoreticians obtained the black hole from Einstein's equations by way of arguments that Einstein always objected to. But Einstein was over-ruled by his less cautious colleagues, who also failed to understand the geometry of Einstein's gravitational field."
- [47]. D. E. Scott, *The Electric Sky: A Challenge to the Myths of Modern Astronomy*, Mikamar Publishing, p. 73 (2006).
- [48]. W. Paschelles, *New Scientist*, pp. 18-19, 13 January (2007).
- [49]. Charles C. Gillispie, E. O. Wilson's Consilience: A Noble, Unifying Vision, Grandly Expressed, *American Scientist*, May-June (1998).
- [50]. L. Li, J. Lin, N. Wu, S. Xie, C. Meng, Y. Zheng, X. Wang, and Y. Zhao, Review and outlook on the international renewable energy

- development, *Energy and Built Environment*, on 8 December (In press, 2020). <https://doi.org/10.1016/j.enbenv.2020.12.002>
- [51]. A. Peters, K.Y. Chung, and S. Chu, Measurement of gravitational acceleration by dropping atoms, *Nature* **400**, pp. 849-852 (1999).
- [52]. H.I. Elim, W. Ji, M.S. Dhoni, N. Venkatram, J. Yang, J.Y. Lee, Aspect-ratio Dependence of Optical Nonlinearities on Resonance with Longitudinal Surface Plasmon in Au Nanorods: Unique Character versus Common Behavior, *Science Nature* **1**(1), pp. 001-007 (2018).
- [53]. H.I. Elim, M.V.V. Reddy, R. Jose, A Frontier 2D Nanobattery: "Improving Challenges (Hotumese) and Development", *Science Nature* **2**(2), pp. 114-121 (2019).
- [54]. H.I. Elim, M. Rahman, W.S. Tutupoho, R.R. Latuconsina, A.A. Pattipeilohy, M.V. Reddy and J. Rajan, Flexible Thin Battery with Fast and Sensitive Voltage Control by a Simple Mechanical Bending: No Energy without Working, *Science Nature* **2**(3), pp. 157-166 (2019).
- [55]. D. Darbara, M.R. Anilkumard, V. Rajagopalanb, I. Bhattacharyac, H.I. Elim, T. Ramakrishnappaf, F.I. Ezema, R. Jose, M.V. Reddy, Studies on spinel cobaltites, MCo_2O_4 (M = Mn, Zn, Fe, Ni and Co) and their functional properties, *Ceramics International* **44**, pp. 4630–4639 (2018).
- [56]. K.P. Abhilash, P. Christopher Selvin, B. Nalini, Rajan Jose, Xia Hui, H. I. Elim, M.V. Reddy, Correlation study on temperature dependent conductivity and line profile along the LLTO/LFP-C cross section for all solid-state Lithium-ion batteries, *Solid State Ionics* **341**, p. 115032 (2019).
- [57]. R. Kunwar, F.I. Ezema, M. Harilal, S.G. Krishnan, B. Pal, I.I. Misnon, C. R. Mariappan, H. I. Elim, C-C. Yang, R. Jose, Pseudocapacitive Charge Storage in Thin Nanobelts, *Advanced Fiber Materials* **1**, pp. 205-213 (2019). <https://doi.org/10.1007/s42765-019-00015-w>
- [58]. *Holy Bible*, for example: Matthew 19:17; Mark 10:18; John 3:33.
- [59]. H.I. Elim, *Nonlinear Optics and The Frontier of Nanoscience and Nanotechnology*, Pattimura University Press, Rajawali printing, 1st Edition, pp. 1-144 (2019). ISBN: 978-602-61906-9-7.
- [60]. M.J. Saptanno, S. Sisinaru, E. Ubwarin, W.A. Siahaya, and H.I. Elim, Customary Law Associated with Five Integrated Aspects in Developing Traditional Coastal and Marine Protections for

Improving Social People Life and Natural Products in Aru, *Science Nature* **2**(2), pp. 105-113 (2019).

Corresponding author CV:

Hendry Izaac Elim, Ph.D

A simple physicist from a small island of Ambon, Indonesia with the educational background of both B.Sc. and M.Sc. in theoretical physics obtained at Gadjah Mada university (UGM) in 1995 and Bandung Institute of Technology (ITB) in 1999 as well as Ph.D (on 13rd December 2005) at NUS, Singapore in the field of physics of nanoscience and nanotechnology. Moreover, Dr. Elim experienced research fellow (type B), postdoctoral fellow and research assistant professor at NUS and Tohokun university in the interval time of 2014 up to 2012. Recently, Prof. Elim is an associate professor of physics at Pattimura university in the particular field of nanoscience, nanotechnology and nanomedicine. Prof. Elim has educated over 75 physics students in the last 7 years and published over 85 international papers with many multitasking discoveries in the whole of his physics career with the h index of 25 and citations from Web of Science over 2567.

*ORCID ID of H. I. E.: 0000-0002-4272-7115

E-ISSN: 2654-6264