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Original Article

Optimization of Energy using Vortex Coil Technology

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Abstract *- This study highlights the prevalent challengeof energy losses incurred in electrical and electronic systems, providing solutions to reduce or eliminate these energy losses tooptimize energy. Marko Rodin, an American, has successfully furthered the concept of the vortex coil technology to what he now calls the Rodin solution, and it is now universally applicable in science, biology, medicine, genetics, astronomy, chemistry, computerscience, physics, and astrophysics. Crude versions of the Rodin coil, created and tested by leading scientists and engineers, show 60% more efficiency than anything presently used in antennas, computer research, or life-saving medical devices. Over the years, some techniques have been postulated to optimize energy and enhance technological efficiency. Still, in this report, we shall see how the vortex coil technology tackles issues of inefficiency in Technology.*

Keywords *- Rodin coil, Vortex math, Decimal parity, Torus.*

1. Introduction

Vortex coil technology, or the Rodin coil, is a groundbreaking discovery that provides a blueprint of the universe [1] and allows for advanced engineering capabilities. It unveils the underlying geometry of the universe, shedding light on the mysterious phenomena of dark matter and energy. The concept was developed by Marko Rodin, who identified patterns within the decimal number system and applied them to a torus's surface and internal volume.

Vortex-based mathematics, or the Rodin Solution, emerged from this discovery and offers a simple yet powerful mathematical framework to decode the entire universe, from the quantum level to galaxies. This approach has been validated by mathematicians, computer scientists, and other prominent scientific thinkers. Its potential impact on our world is immense. The Rodin Torus coil, an embodiment of vortex coil technology [2], can render many current technologies obsolete. This includes the combustion engine, alternating existing, conventional computer compression schemes, heat dissipation methods in computer processors, traditional wireless communication, winged aero planes, conventional types of encryptions, and infinite repeating decimals.

Additionally, the control of genetic engineering through high-dimensional flux fields, which are fundamental to creation, could potentially replace chemical-based approaches to medical treatment [3] [4]. Marko Rodin's revolutionary Rodin coil has transformative potential but lacks attention despite peer review. Their refusal to compromise with profit-driven interests safeguards the integrity of their work, offering a silver lining.

2. Statement of Purpose

Energy is the ability of a physical system to perform work, and it must be transferred to an object to accomplish tasks. It can be sourced from electricity and coal to power machines. However, energy transformations or transfers result in some energy loss, often converted into disordered heat. Achieving complete conversion from input to output energy is nearly impossible, except when intentionally generating heat. Energy transported through power lines also experiences losses, where input energy exceeds the output.

These energy losses prevent processes from being 100% efficient. Fuels contain significant energy content, but only a tiny portion becomes usable energy, with the majority lost. These losses lead to highly inefficient processes, partly due to inherent limitations in machinery. Refining crude oil incurs some losses, but electricity generation, transmission [11], and distribution suffer substantial losses. Thus, electricity supply offers the most significant opportunities for efficiency improvements. [3] [4] The Concept of Response-surface optimization technique has been discussed [5]. This method uses computational and scientific techniques to model, analyze and maximize energy efficiency.

The use of Vortex Tubes (VT) to reduce energy losses in NG pressure reduction stations was also discussed by [6] to increase electricity production. Utilizing new Technology in

existing power plants through renovation and modernization, as well as in new plants, holds promise for enhancing energy efficiency. Rodin coil technology presents solutions to optimize energy supply and reduce losses associated with energy conversion. It can provide free energy and integrate renewable sources to maximize their efficiency. The overarching goal is to minimize energy losses and increase overall efficiency in energy systems.

3. Objectives

a) To understand the principles and formulations of vortex base mathematics, the basis for constructing the vortex coil.
b) Construction of the Rodin coil/Vortex coil.
   i. The frame geometry was acquired.
   ii. The suitable material for the frame was procured.
   iii. A copper wire is being twisted using a drill to obtain multiple twists.
   iv. The copper is wound to the frame using the vortex pattern.
c) Experiment to observe the I-V characteristics curve of the vortex coil.
   i. Plot the values on MATLAB and obtain a graphical representation.
   ii. We are using curve fitting to obtain equations for the relationship.

4. Principle and Formulations of Vortex-Based Mathematics

4.1. Formulations [7]

The formulation of vortex-based mathematics involves the concept of decimal parity, which calculates the sum of the digits in a number repeatedly until a single digit is obtained. This process is applied to understand the underlying pattern of the vortex-based coil. For example, the digits in the number 2048 sum to 2+0+4+8=14, and the digits in 14 sum to 1+4=5. The decimal parity digit of 2048 is, therefore, 5. This decimal parity will be applied to determine the underlying pattern of the vortex-based coil. It reveals an underlying way by adding single numbers (1-9) and represents the interconnectedness of physical entities as coils. The number 9 signifies 100% efficiency, and the zero point represents the absence of a hole at the centre, capable of compressing and decompressing things.

4.2. Principles

The principle of vortex-based mathematics involves exploring the underlying patterns and relationships within numbers and their connection to the fundamental workings of the universe. There are several principles which are listed below.

4.2.1. Doubling

In the doubling principle of Vortex Mathematics, starting from number 1, you can move your pencil in a straight line to number 2, then 4, then across the centre to 8, observing a doubling pattern. Continuing this pattern, 16 becomes 7 (1+6=7), 32 becomes 5 (3+2=5), 64 becomes 1 (6+4=10, 1+0=1), and so on [1]. This sequence forms an infinity symbol underneath the pencil, with the repeating pattern of 1, 2, 4, 8, 7, and 5. Remarkably, this number sequence remains intact even when halving the numbers.

1+1=2

2+2=4

4+4=8

8+8=16; 1+6=7 (Decimal Parity)

16+16=32; 3+2=5

32+32=64; 6+4=10; 1+0=1

No matter how often we are around, breaking the doubling sequence is impossible. It is significant because it is the cause of vibration and motion. The doubling operation diagram is shown in Figure 1(a) and 1(b).

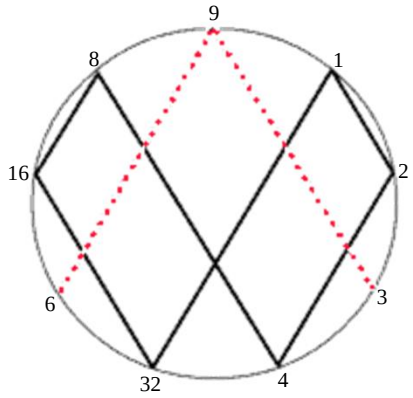

Fig. 1(a) Doubling sequence 1

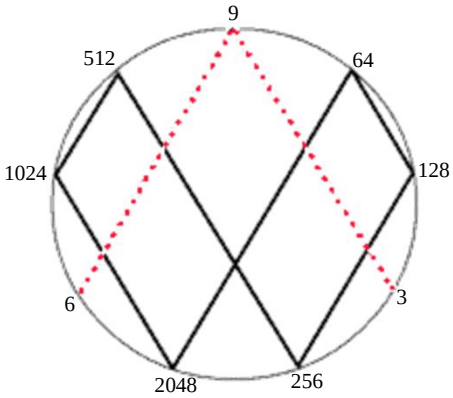

Fig. 1(b) Doubling sequence 2

4.2.2. Halving

From analysis, if I am doubling the other way, I should be halving in the opposite as this creates an equilibrium or synchronization, [1] which is essential in balancing the forces of energy. From Figure 2, this infinite series of halving goes on and on.

1 / 2 = 0.5;			5
0.5 /2 = 0.25;			2+5=7
0.25 /2 = 0.125;			1+2+5=8
0.125 / 2 =0.0625;	6+2+5= 13;		1+3= 4
0.0625 / 2 = 0.03125;	3+1+2+5=11;		1+1=2
0.03125 /2= 0.015625;	1+5+6+2+5=19;	1+9=10;	1+0=1

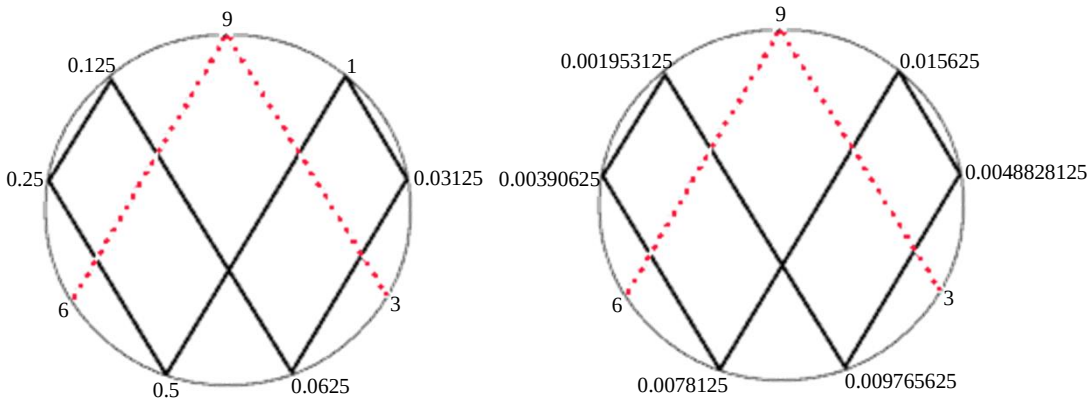

Fig. 2 Halving sequence

4.2.3. Doubling Operation of Energies

3*2=6
6*2=12; 1+2=3
12*2=24; 2+4=6
24*2=48; 4+8=12; 1+2=3

We can see that 3 and 6 oscillate back and forth like magnetic fields, representing duality; they are connected to 9, the energy source.

9*1=9
9*2=18; 1+8=9
18*2=36; 3+6=9

We can see that nine is unchanging. It is polarizing all these numbers [11]. This is also applicable in the halving operation ofthese energies.

4.2.4. Multiplication Series

From Table 1, the numbers line up horizontally across each other, all equal to 9.

8+1=9
7+2=9
6+3=9

This turns the numbers into mirror images andpolarizes each other [8]. The numbers above show the multiplicative seriesof Table 1.

Table 1. Multiplicative series for coil arrangements

M8 = 9 1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9 = M1
M7 = 9 2 4 6 8 1 3 5 7	2 4 6 8 1 3 5 7 9 = M2
M6 = 9 3 6 9 3 6 9 3 6	3 6 9 3 6 9 3 6 9 = M3
M5 = 9 4 8 3 7 2 6 1 5	4 8 3 7 2 6 1 5 9 = M4

The multiplicative series of M1 gives.

1*1=1
1*2=2
1*3=3; etc.

One is the only number that goes up with anincrement of 1. The multiplicative series of M8 gives,

8*1=8
8*2=16; 1+6=7
8*3=24; 2+4=6
8*4=32; 2+3=5; etc.

From the multiplicative series, if I have M1 going up in increments of 1, M8 is going down in increments of 1, we can see that they have polarity when M1 is positive, M8 is negative, and they are mirror images because the M1 and M8 are opposing each other. This is also applicable to M7 and M2, M5 and M4.

For M3 and M6, the multiplicative series are

3*1=3
3*2=6
3*3=9
3*4=12; 1+2=3; etc.

This is also applicable to M6.

We can see that all the numbers of multiplicative series always end equal and end with nine, which shows the beginning and end of every sequence. It is not in the multiplicative series because the multiple of 9 equals back to 9. The (3, 6, 9) represent the higher world, while the (1, 2, 4, 5, 7) represent the physical world. Figure 3 illustrates the multiplicative series diagram.

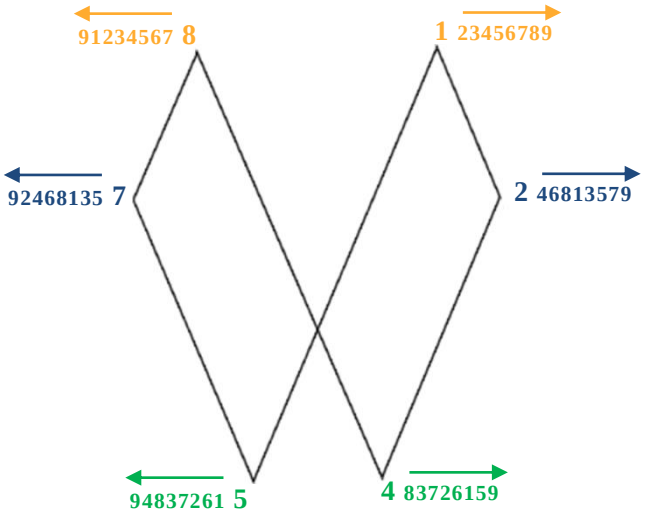

Fig. 3 Multiplicative series diagram

4.2.5. Power of Reciprocal

From Figure 3, adding all the parallel lines gives 3 in the clockwise direction and 6 in the anticlockwise order, which shows my field is separating, which I call the flux field or magnetic field.[8] Example of adding parallel lines in the clockwise direction,

1+2=3
9+3=12; 1+2=3
8+4=12; 1+2=3; etc.

This is also applicable in the anti-clock wise direction, which gives 6.

4.2.6. Family Number Group

Family number groups from Figure 1(a) and 1(b) is (1,4,7), (2,5,8), and (3,6,9). There is a property we get from the halving process called the family number group. We determine them by adding 3 and 6, which are the energies to each group that equal the numbers in the group [1].

For example,

1+3=4
4+3=7
7+3=10; 1+0=1
1+3=0

From the above example, it goes around to (1, 4, and 7), which applies to other family groups. This is important because when one family group is positive, the other is negative simultaneously. This helps synchronize energies, which enables the number to be polarized. When nine is positive, 3 and 6 are negative [11]. In other words, Magnetism goes into the centre when the power comes out, and vice versa when nine is negative. So, each number has a negative and positive side that enables polarization. This mathematical proof reveals the underlying patterns inherent in the operations of numbers, providing valuable insights that can be applied in practical applications.

5. Construction

Marko Rodin has released the Rodin coil, a groundbreaking coil design based on his “vortex-based mathematics” concept. This coil offers numerous advantages over traditional coils, including higher Efficiency and more robust Magnetism. It achieves a minimum 20% reduction in copper usage, making it more cost-effective [12]. The toroidal winding method employed in the Rodin coil introduces unique effects and properties, with the torus shape proving beneficial in various applications such as health, biology, and power generation.

The Rodin coil’s winding pattern synchronizes electricity by aligning electrons and minimizing collisions, heat, friction, and reluctance. Unlike standard coils prioritizing transformer optimization, the Rodin coil focuses on field creation. The Rodin coil has various unique applications, including developing the “starship” coil, which has shown over-unity results. Its winding applications exhibit distinct electromagnetic properties, making it a representation of the fundamental geometry of the universe, capable of drawing energy from the vortex or zero point. Marko Rodin’s research also explores the coil’s and black holes’ relationship.

The magnetic field in the Rodin coil is visualized as perpendicular to the winding direction and concentrated in the centre, distinguishing it from regular coils. Replicators have observed a vortex field spiraling through the coil, leading to new and intriguing effects. [1] Marko Rodin’s vortex-based mathematics provides a comprehensive framework for understanding and engineering the universe. It uncovers the underlying geometry and missing energy that drives the continuous creation and motion of objects in the universe. Rodin’s discovery has implications for the scientific search for “dark matter” and “dark energy” [12].

The concept is applied to the Rodin coil, which generates its magnetic field. The coil's magnetic field is depicted in the accompanying image

Figure 4 compares the Rodin coil with a conventional coil, highlighting that the Rodin coil wraps around the torus and undergoes multiple revolutions. In contrast, traditional coils do not cover the entire toroidal shape. The magnetic field in the Rodin coil resembles a regular coil but with the addition of a flux path for circulation, which contributes to the specific functionality of the Rodin vortex coil.

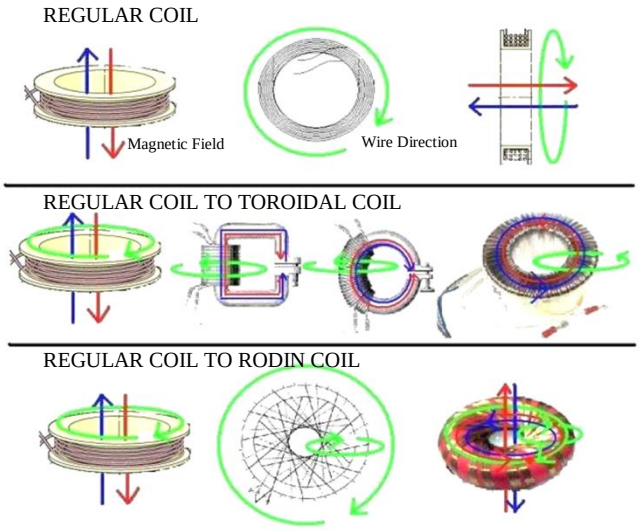

Fig. 4 Difference between Rodin coil and conventional coil

5.1. The Winding and Coiling Pattern

The Rodin coil is a toroidal coil wound in a specific pattern based on several ways discovered by Marko Rodin. In a Rodin coil, the windings lie on the surface of the torus but do not lie consecutively adjacent to each other. Instead, they reach along the surface, through the central doughnut hole area, and 30 degrees short of directly across the torus. The central circle of wires in a Rodin Torus naturally creates a significantly increased magnetic field in the centre of the torus compared to a conventional coil wound with the same amount of wire.

In addition, the field generated is much more coherent in the sense of being much more sensitive to a particular frequency of the applied current. A winding pattern for a torus creates synchronized electricity. By winding in this manner, you orient the electrons moving through the windings, minimizing random collision of electrons and heat, friction, and reluctance.

The right and left doubling circuits (beginning and ending at position one and beginning and ending at position 2) conduct the flow of electrons in opposite, parallel diagonal directions. The dotted lines (beginning and ending on numbers that are multiples of 3) [2] represent the gap spaces, the equal potential major grooves that separate the winding. This unique winding configuration cancels losses and enhances the magnetic field, resulting in concentrated magnetic force at the centre.

Replicators have observed a vortex field spiraling through the coil, indicating new and intriguing effects [13]. The spiral pattern of the Rodin coil synchronizes electricity, minimizing collisions, heat, friction, and reluctance, improving efficiency and performance.

Fig. 5 Image of vortex coil

6. Results and Discussion

After constructing the Rodin coil, it was tested unit by unit, step by step, to ensure that the desired objectives were met. It was tested with a multimeter to determine the continuity and behaviour of the overall coil. The test was conducted to test the performance and reliability of the coil.

6.1. Design Simulation

The Rodin coil was simulated to determine the relationship between the voltages and the mathematical and graphical representation of the coil get results. We used different equipment and software to complete the work, which will be discussed below.

6.1.1. Measurement using Alternating Voltage

We measured the voltage and current in the coil using an alternating voltage waveform, periodically changing its polarity and magnitude over time.

6.1.2. Input and Output Voltage Relationship

The first test was to check the voltage relationship between the input and output to know whether it is lossy or lossless. This was done by measuring the voltage from the terminals at the centre of the coil while we varied the voltage using an AC variable power supply. The result of the test is shown in Table 2.

Table 2. Result of input and output voltages

Input Voltage	Output Voltage
0	0
23.4	23.5
45.2	45.3
64.2	64.3
84.6	84.8
104.5	105.0
125.4	125.5
204	204
223	225
244	245
280	281

6.1.3. Voltage at the Center of the Coil

There are two voltage measurements obtained from the centre of the coil. These are as explained below:

a. Measuring voltage without additional copper across each horizontal side.

The results of the test are shown in Table 3.

Table 3. Result of voltage at the center of the coil without additional winding

Input Voltage	Output Voltage	Voltage at the Center of the Coil
0	0	0
23.4	23.5	0.05
45.2	45.3	0.06
64.2	64.3	0.08
84.6	84.8	0.14
104.5	105	0.18
125.4	125.5	0.24
204	204	0.29
223	225	0.38
244	245	0.40
280	281	0.46

b. Measuring voltage with additional coppers across each vertical side.

The coil configuration with extra windings across it is shown in Figure 6. The test results for multiple windings are shown in Table 4.

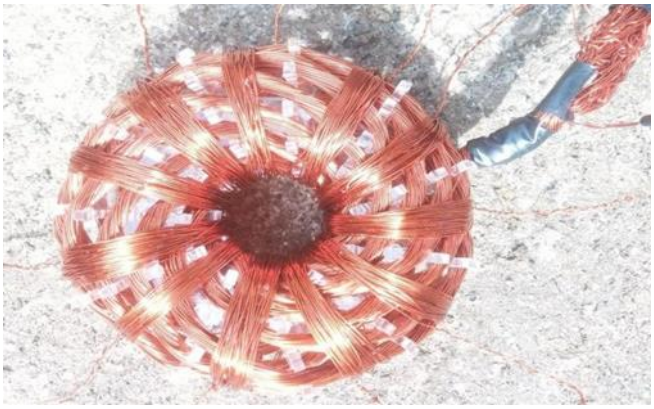

Fig. 6 Coil with additional copper across each side

Table 4. Result of voltage at the center of the coil for multiple winding

Input Voltage	Output Voltage	Voltage at the Center of the Coil
0	0	0
23.4	23.5	0.07
45.2	45.3	0.09
64.2	64.3	0.16
84.6	84.8	0.25
104.5	105.0	0.35
125.4	125.5	0.45
204	204	0.55
223	225	0.67
244	245	0.74
280	281	0.84

6.1.4. Current Relationship

The current was determined by connecting a load (bulb) to the input of the coil and measuring the current. The results obtained from the current measurement are shown in Table 5.

Table 5. Result of the current relationship

Voltage	Input Current	Output Current
84	7.2	7.2
120	8.1	8.3
150	9.0	9.0
175	10.0	10.0
200	11.2	11.3
240	12.0	12.2

From observation, we see that an increase in voltage causes the current to increase according to Ohm's law, which states that voltage is directly proportional to current. The formula is as shown in Equation 1.

$$\text{Voltage} = \text{Resistance} \times \text{Current} \quad (1)$$

As we increase the voltage, the current also increases.

6.1.5. 12-Volt DC Battery Test and Result

Below is the procedure used to test the 12-volt DC battery test.

- Connect the input of the coil to the 12-volt DC battery using a probe.
- Connect the output of the coil to a multimeter.
- Turn the multimeter to measure DC voltage.

The result for the test result is shown in Table 6.

Table 6. 12-Volt DC battery test

Input Voltage	Output Voltage
12	12

6.1.6. MATLAB Simulation

To simulate the coil using MATLAB, we defined the system model and set up the simulation parameters then created a script that implemented the model and ran the simulation. Visualize and analyze the results using MATLAB's plotting and analysis functions. The results are shown below.

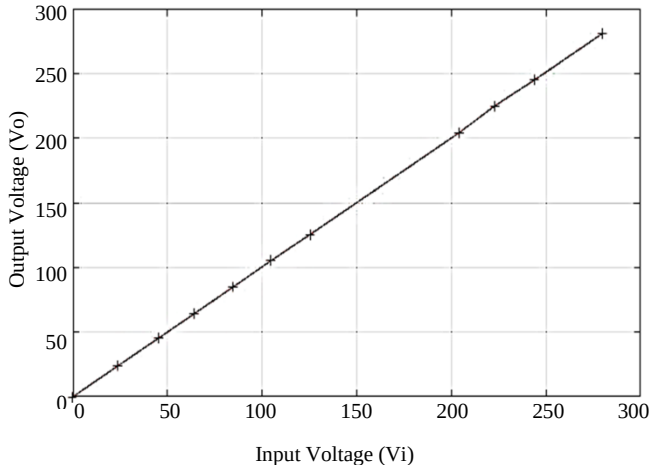

Fig. 7 Graph showing the voltage relationship

6.2. Discussion

From the above data, the proposed system is highly efficient. The results obtained from the voltage simulation show that the input voltage is equal to the output voltage. The calculation for the average and efficiency of the input and output voltage is shown below.

6.2.1. Voltage Calculation

To determine the average voltage, we use the formula in Equation 2.

$$\text{Average voltage} = (\text{Total sum of the voltages})/(\text{Total number of voltages}) \quad (2)$$

From Table 2, our input and output voltages are listed there.

$$\text{Average input voltage} = (\text{Total sum of input voltages})/(\text{Total number of voltages}) \quad (3)$$

$$= (0+23.4+45.2+64.2+84.6+104.5+125.4 +204+223+244+281)/11$$
$$= 1399.3/(11)$$
$$= 127.21 \text{ volts}$$

$$\text{Average output voltage} = (\text{Total sum of output voltage}) / (\text{Total no of output voltage}) \quad (4)$$

$$= (0+23.5+45.3+64.3+84.8+105+125.5+204 +225+245+281)/11$$
$$= 1403.4/11$$
$$= 127.58 \text{ volts}$$

The calculations above show the average input and output voltage. From observations, the output voltage is slightly higher than the input voltage. To calculate efficiency, we use the formula.

$$\text{Efficiency} = (\text{Output Voltage} \times 100)/(\text{Input Voltage}) \quad (5)$$

$$= (127.58 \times 100)/127.21$$
$$\text{Efficiency} = 100.29\%$$

Our calculations show that the coil is highly efficient, proving the theory proposed earlier about the Rodin coil.

6.2.2. Curve Fitting Result

We obtained the equation of the vortex coil using curve fitting (MATLAB).

$$\text{Given as; } f(x) = p1*x + p2 \quad (6)$$

Where p1 = 1.005 = gradient, p2 = -0.1818 = intercept on the x- axis.

Therefore, the equation is given as follows;

$$Vo = 1.005Vi - 0.1118 \quad (7)$$

From Table 2, we discovered that an increase in the cable around the coil increases the electromagnetic voltage at the centre of the coil. As the line is increased, the voltage increases; this is because the electromagnetic flux emanates from the centre, and the number of coils increases the voltage. In the current relationship, we found out that it obeys Ohm's law without any losses due to the load connected to it. It acted like a pure conductor without resistance, making the voltage proportional to the current.

7. Conclusion

By addressing energy-related losses, the project aimed to maximize energy consumption in machinery and achieve efficiency levels of at least 100%. Various losses, including heat loss, copper loss, windage loss, magnetic loss, and stray loss, were satisfactorily handled by the prototype coil created for this purpose. The winding pattern balanced out copper losses, the absence of heat eliminated the need for cooling fans, the coil's bend focused magnetic force, and confining the flux at the center decreased stray losses, all of which were benefits of the coil's design.

During testing, an electromagnetic field originated from the coil's center, generating energy. To increase energy output, additional copper windings were incorporated along the vertical axis of the coil.

After testing the coil, it was discovered that there had been no loss in voltage or current and just a slight rise in output (around 0.1), giving the impression of 100% efficiency. Despite this positive outcome, it's expectations are not fully utilized.

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