

PYRAMID-THE RESONATOR OF WAVES

by

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ABSTRACT

The Pyramid – Resonator of waves

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The Great Pyramid of Giza has fascinated us all as it encodes enormous amount of numerical coincidences such as dimensional precision, movement of our planet, speed of light, the golden ratio of Pi & Phi, etc. Studies have reasoned that the great pyramid of Giza has expressed the key ratio of an AC voltage sine wave as well as the ratios of Fibonacci number in developing the pyramidal design. Therefore in this study, the pyramid structure is considered as a resonator of waves where reflection of waves is an obvious phenomenon. The waves entering the pyramidal resonator will be reflected inward as they reflect from a curved surface according to the law of reflection.

Since, a reflecting wave involves the energy-transport process, it determines our main objective to review and internalize the energy caused by reflection of the waves which occurs inside the pyramidal resonator. It is assumed that there is a strength point of such energy due to a higher volume of reflected waves to a single point. According to the law of reflection, when reflection occurs through a curved surface, it focuses incoming parallel waves to a convergence spot. This project is subjected to study the pyramid as a resonator of waves and aims to detect, observationally, the strength point of energy assumed to be caused by maximum number of reflected waves.

ACKNOWLEDGEMENTS

A special note of thanks and gratitude to the Sufi (spiritual) Master Khuwaja Shams-ud-din Azeemi for inspiring me with his wisdom & foresight which provided me the inspiration and impetus needed for this project. He stated in his book "Muhammad-ur-Rasoolallah (Part3) that "A pyramid structure accumulates electric and magnetic energy in a constant manner because of its specific angles, and the maximum or the highest strength of this energy is at 1/3rd level of the pyramid right under the apex". This initiated the brain storming of possibilities which provided the baseline to this study.

I also acknowledge my debt of thanks to Prof. Dr. Kaamran Raahemifar for his encouragement and advice without which this research work could not be accomplished.

In addition, I would like to express my deepest appreciation to my friend & beloved wife, Sadia Junaid, for her continued support in every aspect that was much needed for the completion of my project.

DEDICATION

I would like to dedicate my project to **Khuwaja Shams-ud-din Azeemi** with much respect & gratitude, who inspired me that an enlightened inner is a master key to a clearer and better outer manifestation whether it leads a self being or a science venture.

And Also,

I would like to dedicate my work to my beloved mother whose support and dedication always kept me directed to Learning and Knowledge.

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CHAPTER 1: INTRODUCTION

1.1 PROJECT PLAN

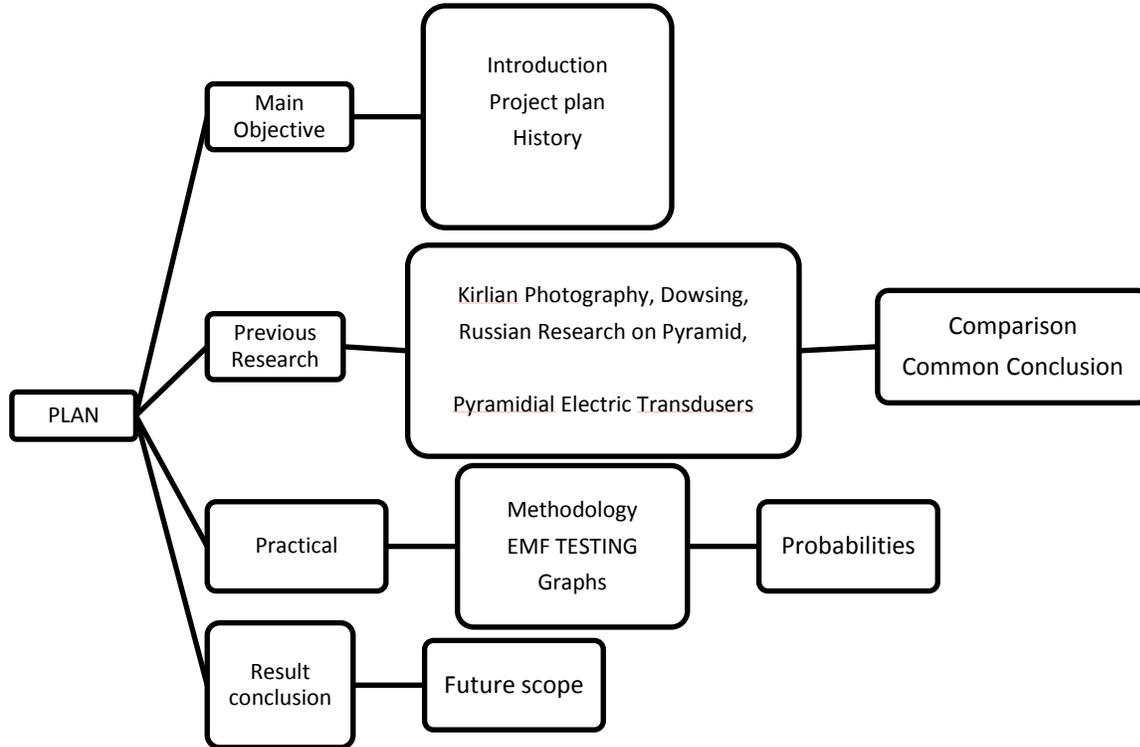


FIG 1: INTRODUCTION TO THEORY

1.2 INTRODUCTION

The Great Pyramid of Giza has a very fascinating design as it encodes enormous amount of numerical coincidences such as dimensional precision, movement of our planet, speed of light and the golden ratio of pi π and phi Φ . In pyramid design, the ratio of the apothem to half the base obeys the Golden Ratio of phi Φ , and the perimeter of its base equals that of a circle with a radius equal to its height.

The following figure shows the definition of the apothem (a), the height (h) and half base (h) of a typical square pyramid.

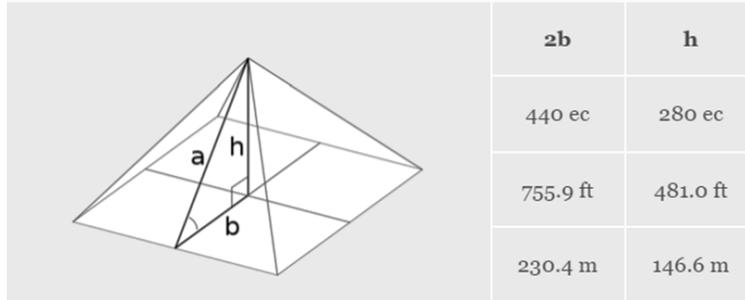


FIG 2: GREAT PYRAMID OF GIZA DIMENSIONS GIVEN IN EGYPTIAN CUBITS (EC), IN FEET (FT) AND IN METERS (M).

A study by Peter Grandics reasoned that the Great Pyramid of Giza has expressed the key ratio of AC voltage sine wave. He analyzed the dimensional ratios of the Great Pyramid of Giza (GPG) and found that it incorporates the key ratios of an AC voltage sine waveform as well as three Fibonacci number ratios. He observed that the pyramidal unit cell constants are a function of π and ϕ . Key sine wave parameters are resonant with the base length and height of the GPG, suggesting that the pyramid may scale up volumetrically as an antenna/electric transducer. The dimensions and ratios are given below in the table.

The dimensional ratios are such as;

GPG dimensional ratios:

$$280/440=0.6363=2/\pi$$

$$440/622.25=0.707$$

$$280 \times 622.25 / 440 \times 440 = 0.9$$

$$280/D/2=0.9$$

Key sine wave ratios:

$$AVE/PEAK=0.6363=2/\pi$$

$$RMS/PEAK=0.707$$

$$AVE/RMS=0.9$$

Fibonacci number ratios in GPG:

$$356/L/2=1.618 \phi$$

$$356/418=0.80905 \phi/2$$

$$356/280=1.271 \sqrt{\phi}$$

$$\pi/4=1/\sqrt{\phi}$$

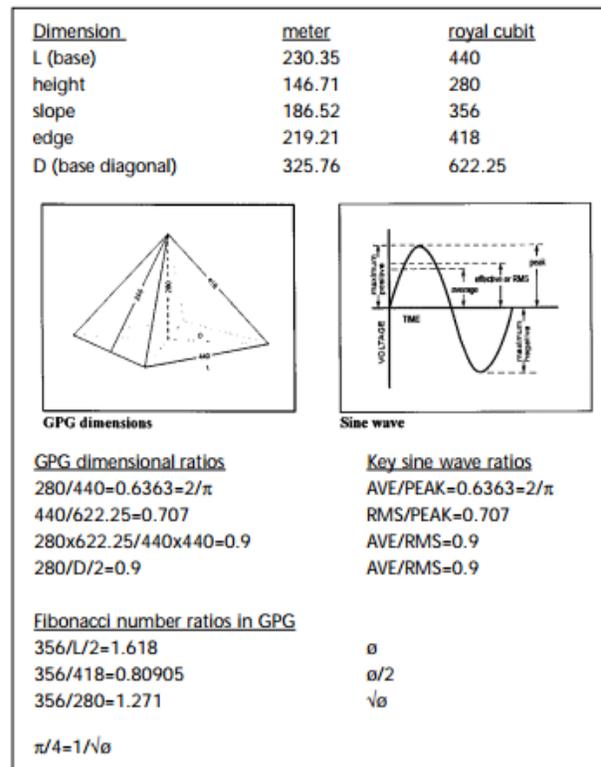


FIG 3: APYRAMID AS A RESONATOR OF WAVES BY PETER GRANDICS ANALYSES OF RATIOS

A logarithmic sweep was performed to investigate the possibility. On a 1 foot base length pyramid from 500 Hz to 5 MHz at 10 m-sec sweep speed by using a Wavetek 185 signal generator (Figure 1). The pyramid was placed inside a cylindrical metallic emitter (52 cm diameter, 26 cm high with 0.3 mm wall thickness) to account for the fact that atmospheric ESD impulses are received Omni-directionally. As a result, the signal, a sine wave with 5V peak amplitude, was delivered across a 1 kilo-ohm (kΩ) resistor to the unit under test. Thus affirming the key ratio of AC Voltage sine wave for which we assumed that the Great Pyramid of Giza works a resonator of waves.

The term resonator is most often used for a homogeneous object in which vibrations travel as waves, at an approximately constant velocity, bouncing back and forth between the sides of the resonator. The material of the resonator, through which the waves flow, can be viewed as being made of millions of coupled moving parts such as atoms. Therefore, there can be millions of resonant frequencies, although only a few may be used in practical field as resonators. The oppositely moving waves interfere with each other to create a pattern of standing waves in the resonator.

1.3 BEHAVIOR OF WAVES IN RESONATOR

We assume that the waves inside the pyramid undergo certain behavior as Electrostatic waves, when encounters with other medium such as the boundaries of angular structure, waves don't end there. They reflect, refract and diffract.

Now, a standing wave is a special kind of wave that can occur in a resonator. In a resonator, superposition of the incident and reflective wave occurs, as discussed above, causing a standing wave. Consider the pyramidal angles with closed ends acting as a resonator. This resonator has normal mode at frequencies given by,

$$f = \frac{Nc}{2d} \quad N \in \{1, 2, 3, \dots\}$$

Where,

'c' is the speed of wave in m/s

'd' is the length in meter

Now the oppositely moving waves interfere with each other to create a pattern of standing waves in the resonator. Particle velocity becomes zero since there can be no particle displacement. Pressure however doubles at the ends because of interference of the incident wave with the reflective wave.

In its true precision, a pyramid consists of four identical triangles, which spring from a square base and culminate at a common point under the Apex.

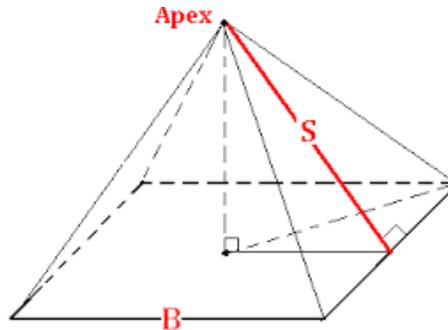


FIG 4: PYRAMID FOUR IDENTICAL TRIANGLES WHICH CULMINATE AT A COMMON POINT UNDER THE APEX

This is where we expect the strength of energy caused by interfering waves. The line under Apex will be divided into portions for observational purpose to compare the values at different levels.

1.4 HISTORY: THE GREAT PYRAMID OF GIZA

The Great Pyramid of Giza is also known as the Pyramid of Khufu or the Pyramid of Cheops. It is the oldest of the seven wonders of the ancient world, and the only one to remain largely intact. According to provided fact and figures of the pyramid, the overall mathematical and geographical precision of this ancient structure is a well-accepted factor. The great Pyramid is positioned exactly at the latitude and longitude lines that contain more land and less sea than any other place on earth. Besides, it's right in the geographical center of the earth. The Pyramids of Giza is the only Wonder of the ancient world that is still in existence. They are about 4,500 -5000 years old which makes them the oldest surviving monuments in the world.

Here are some facts of great pyramid of Giza that makes it more than architectural composition;

- 1 The Pyramid is precisely aligned with the Constellation of Orion.
- 2 The base of the pyramid covers 55,000 m² (592,000 ft²) with each side greater than 20,000 m² (218,000 ft²) in area.
- 3 The interior temperature is constant and equals the average temperature of the earth, 20 Degrees Celsius (68 Degrees Fahrenheit).
- 4 The pyramid is estimated to have around 2,300,000 stone blocks that weigh from 2 to 30 tons each and there are even some blocks that weigh over 50 tons.
- 5 The outer mantle was composed of 144,000 casing stones, all of them highly polished and flat to an accuracy of 1/100th of an inch, about 100 inches thick and weighing approx. 15 tons each.

- 6 The cornerstone foundations of the pyramid have ball and socket construction capable of dealing with heat expansion and earthquakes.
- 7 The mortar used is of an unknown origin. It has been analyzed and its chemical composition is known but it can't be reproduced. It is stronger than the stone and still holding up today.
- 8 It was originally covered with casing stones (made of highly polished limestone). These casing stones reflected the sun's light and made the pyramid shine like a jewel. They are no longer present being used by Arabs to build mosques after an earthquake in the 14th century loosened many of them. It has been calculated that the original pyramid with its casing stones would act like gigantic mirrors and reflect light so powerful that it would be visible from the moon as a shining star on earth. Appropriately, the ancient Egyptians called the Great Pyramid "Ikhet", meaning the "Glorious Light". How these blocks were transported and assembled into the pyramid is still a mystery.
- 9 Aligned True North: The Great Pyramid is the most accurately aligned structure in existence.
- 10 Center of Land Mass: The Great Pyramid is located at the center of the land mass of the earth. The east/west parallel that crosses the most land and the north/south meridian that crosses the most land intersect in two places on the earth, one in the ocean and the other at the Great Pyramid.
- 11 It is reported that when the pyramid was first broken into that the swivel door, weighing some 20 tons, was so well balanced that it could be opened by pushing out from the inside with only minimal force, but when closed, was so perfect a fit that it could scarcely be detected and there was not enough crack or crevice around the edges to gain a grasp from the outside.
- 12 With the mantle in place, the Great Pyramid could be seen from the mountains in Israel and probably the moon as well.
- 13 The weight of the pyramid is estimated at 5,955,000 tons. Multiplied by 10^8 gives a reasonable estimate of the earth's mass.
- 14 Sun's Radius: Twice the perimeter of the bottom of the granite coffer times 10^8 is the sun's mean radius. [270.45378502 Pyramid Inches $10^8 = 427,316$ miles]
- 15 The curvature designed into the faces of the pyramid exactly matches the radius of the earth.
- 16 Khufu's pyramid, known as the great pyramid of Giza, is the oldest and largest, rising at 481 feet (146 meters). Archaeologists say, it was the tallest structure in the world for about 3, 800 years.
- 17 The relationship between Pi (π) and Phi (Φ) is expressed in the fundamental proportions of the Great Pyramid.

$$A = lw + l\sqrt{\left(\frac{w}{2}\right)^2 + h^2} + w\sqrt{\left(\frac{l}{2}\right)^2 + h^2}$$

EQ. 2: CALCULATING THE SURFACE AREA OF PYRAMID

We have some basic formulae such as if area where l is the length, h is the height and w is the width of the pyramid the relation between Pi and the pyramid connection between pyramids measurements and angles are the main reason of getting higher EMF values. Base of the area can be found by this formula where l is the length & w is the width.

$$AB=lw$$

All pyramids have their significance with the measurements and angles. Giza pyramid was made with such perfection, so precise that the joints are not more then 1/5th of an inch wide. The ratio of the length (side) to the height is close to pi/2. 763 divided by 485 which is 1.57. and multiply by 2 makes it Pi .By the calculation of Pi it is very significant that pyramid with an angle with 51.84 degrees (calculated) of the Giza pyramid must have a base-to-weight ratio.

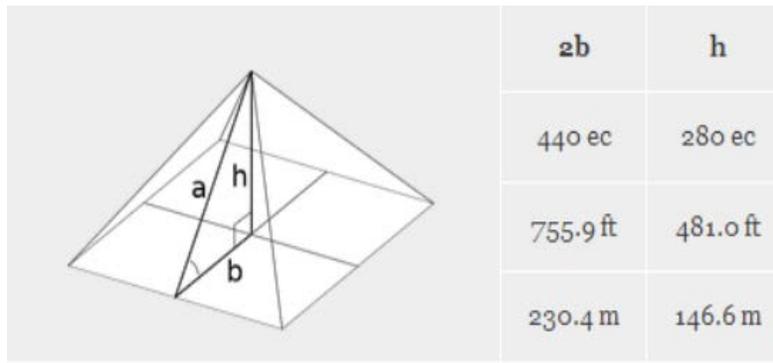


FIG 5: GREAT PYRAMID OF GIZA IN EGYPTIAN CUBITS

CHAPTER 2: REVIEW OF LITERATURE

2.1 JITEN BOOK OF PYRAMID FOR FENG SHUI & VASTU

This book contains information about Pyramid energy obtained by different experiments which proved the existence of energy within the pyramid structure. Two techniques from this book are mentioned that proves the presence of energy in these structures.

2.2 KIRLIAN PHOTOGRAPHY

There is energy around matter called Aura. Human beings have different auras depending on their mental, physical, emotional and spiritual health as the book states. When someone is subjected to the pyramid, this field of aura intensifies and expands.

This aura energy shows visible change before and after sitting in the Pyramid structure when photographed by Kirlian photography. Pyramid here is becoming a source of strong energy which is enhancing aura as shown by the photography.

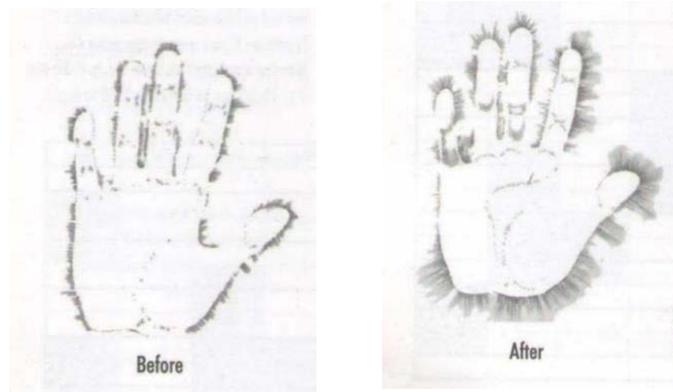


FIG 6 : KIRLIAN PHOTOS HANDS SHOWING AURA ENHANCEMENT AFTER SITTING 15MINTES IN THE PYRAMID

2.3 DOWSING

Dowsing is a way of using the body's own reflexes to help you interpret the energy world around you. The Dowsing Technique shows spiral rotation starting about 6-7 inches above the Pyramid. This result depends on the sensitivity of the practitioner. The Dowsing shows spiral, circular, rotating movement over the Pyramid indicating its energy flow.

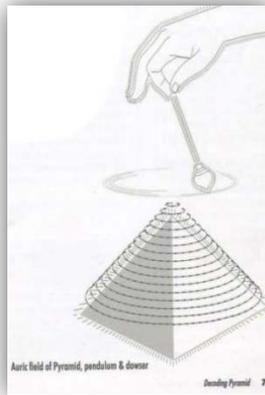


FIG 7 : ROTATING MOVEMENT AROUND PYRAMID THAT CLEARLY SHOWS ENERGY FLOW AROUND PYRAMID

Dr. Dhara with her pyramid experience chalks out a criterion of using a pyramid to obtain maximum results. She mentioned in her book that the right placement of pyramid with following requirements will provide efficient results.

- 1 Pyramid must be placed in a clean, airy place
- 2 The apex should always be pointing upwards
- 3 There should be some space above its apex & around
- 4 There should be no filter in its surroundings
- 5 Electric & electronic gadgets must be kept at a distance, but if your purpose is for computers & electronics appliances, then you can place the pyramid on them.

2.4 RUSSIAN RESEARCH ON PYRAMID

Dr. Alexander Golod, PhD. has been doing Russian pyramid research in the former Soviet Union since 1990. This research involved the construction of over twenty large pyramids in 8 different locations in Russia and Ukraine.

Many different experiments are being done using these pyramids carried out by top scientists in Russia. They include studies in medicine, ecology, agriculture, physics and health sciences.

Brief summary of a different departments Research Results is as follows, while some of them are discussed in a bit detail.

- 1 Immune system of organisms reported improved (blood leukocyte composition increased).
- 2 Improved regeneration of tissue.
- 3 Seeds stored in the pyramid for 1-5 days showed a 30-100% increase in yield.

- 4 Soon after construction of the Lake Seliger pyramid a marked improvement of the ozone was noted above the area.
- 5 Pyramids constructed in Southern Russia (Bashkiria) appeared to have a positive effect on oil production with oil becoming less viscous by 30% and the yield of the oil wells increased according to tests carried out by the Moscow Academy of Oil and Gas.
- 6 Standard tissue culture tests showed an increase in survival of cellular tissue after infection by viruses and bacteria.
- 7 Radioactive substances show a decreased level of radiation inside the pyramid.
- 8 There are reports of spontaneous charging of capacitors.
- 9 Physicists observed significant changes in superconductivity temperature thresholds and in the properties of semi-conducting and carbon nano materials.
- 10 Water inside the pyramid will remain liquid to minus 40 degrees Celsius but freeze instantly if jostled or bumped in any way.

It is interesting to note that results seem to show that increasing the height of the pyramid improves the quality of the result.

Russian scientists discussed three possible shapes of pyramids: a sharp pyramid, the Great Pyramid and an obtuse pyramid in relation to their probable function according to quantum physics. One of those experiments is briefly mentioned below;

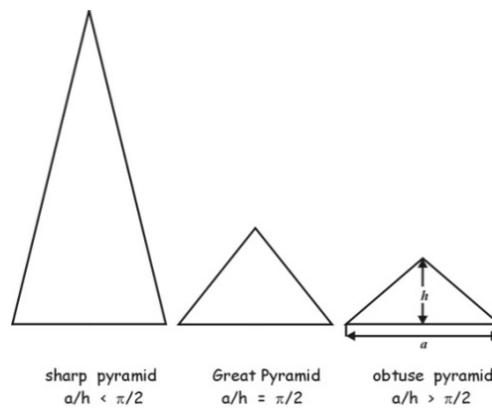


FIG 8 : RUSSIAN PYRAMID

As a reason to this design, they defined the role of Inerton waves and discussed that invisible inerton waves of the Earth always accompany any physical process that occurs on the Earth surface or inside of it. Because of that the Earth inerton field may be treated as an alternative to the aether wind which, speaking the language of physicists of the nineteenth and early twentieth century, the Earth might

experience in its motion through the world aether. Apparently, inerton waves increase inside Egyptian pyramids and their models since the pyramids are typical resonators of inerton waves, which are excited in the Earth.

The first design that is shown in the above figure depicts the Russian Pyramids developed for research. This pyramid is characterized by the ratio $a/h = 0.5$. Since the value 0.5 is approximately three times less than the number $\pi/2$, it was suggested that parameters of such sharp pyramid are not able to keep the inerton waves inside the construction. The sharp pyramid plays rather the role of a radiator (but a sharp pyramid may function also as an antenna absorbing inerton radiation from outer space). They mentioned that researchers from the company "Gidrometbribor" fixed presumptively ionic formations over the sharp pyramid. To the contrary, an obtuse pyramid may rather function as a radiator that emits amplified inerton waves into the Earth surface. Whereas, the Great Pyramid of Giza should work the same as a resonator which does not radiate up or down.

An experiment conducted in the sharp pyramid resonator is given below;

2.5 PYRAMID A CUTTING EDGE RESONATOR

This Russian investigation conducted an experiment related with the cutting edge (point) of a razor blade. But, before putting it into the Sharp Pyramid Resonator, a small reference specimen was cut out of the blade. The blade was put on the column into the resonator so that the axis of the blade was oriented along the South-North line.

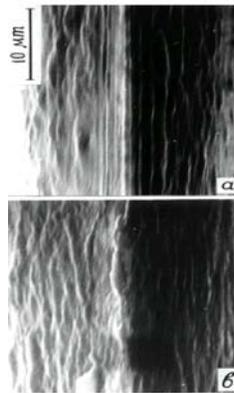


Figure 4 (©900x magnification)

FIG 9: THE SHARPENED BLADE IN COMPARISON WITH ITS UNTREATED SPECIMEN

The main action on the blade on the part of Inerton waves was expected in the plane of the blade along the East-West line (this action amounts to a peculiar sharpening of the cutting edge) and the less intensive action – along vertical direction. Razor blades used in the test were produced by four different companies. Investigation of the structure of the cutting edge point of the reference specimen and of the specimen subjected to the hypothetical inerton field was carried out by scanning electron microscope JSM-35 (Japan) operated in secondary electron mode under 25 kV accelerated Voltage. The exposure time lasted to 30 days. The result is obvious from the figure which shows the sharpened blade.

2.6 ATMOSPHERIC ELECTROSTATIC ENERGY

Peter Grandics in 2007 presented in his study that the great pyramid of Giza express the key ratio of an AC voltage sine wave as well as ratios of the Fibonacci number. This study reasoned that the shape of great pyramid of Giza could embody a time domain, wideband antenna for atmospheric electrostatic discharge impulse. It found that the pyramidal antenna, modeled on the GPG, can couple into the atmosphere and transfer the power of ESD impulses into a novel lumped-element resonant circuit that converts the random impulses into regular series of exponentially decaying sinusoidal wave trains. Thus, Electro static discharge impulses can be transformed into an alternating current of predictable frequency. This system could become a source of renewable electric power source by utilizing the atmospheric electrostatic energy. The diagram above shows circuit model from which he produced energy using pyramidal angles.

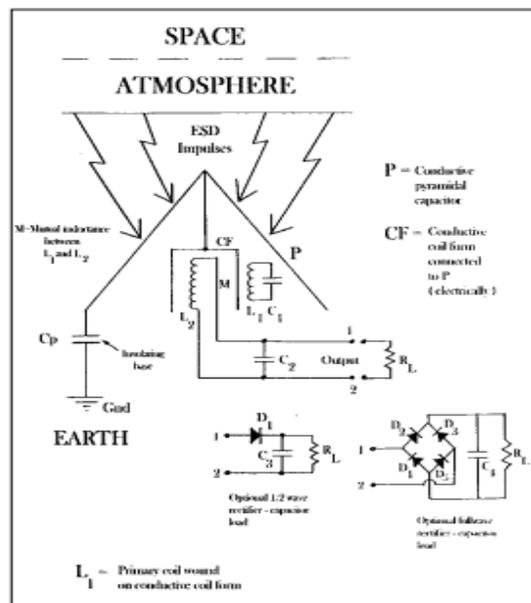


FIG 10: THE PYRAMID ELECTRIC TRANSDUCER CIRCUIT MODEL

He also proposed that the generation of electricity would be commercially practical even in the absence of thunderstorm generators. As the charge-accumulating capacity of the pyramid is directly proportional to its surface area, a sufficiently large pyramid could potentially generate megawatts of power even under fair weather conditions.

Peter Grandics referred to the Russian research in his thesis and stated that the Russian study also noted a reduction in the frequency of lightning in the vicinity of the pyramid. He reasoned that as electrification of thunderclouds drive severe weather including lightning phenomena, depleting charges from thunderclouds would reduce both lightning activity as well as atmospheric turbulence. With the increasing frequency of hurricanes and other severe weather incident, installation of properly sized pyramidal electric transducers in hurricane-prone heavily populated areas could become more than just power generation; they could have additional benefits by saving both lives and property. In this study Peter concluded that possibly thousands of terawatts of power are generated in the troposphere by thunderstorms. A pyramidal structure, with its optimal geometry and construction, can act as a suitable charge sink, capturing this electric power and preventing its dissipation.

2.7 ATMOSPHERIC RESEARCH ANALYSIS

An anecdotal experiment performed by Thomas Trawoger demonstrates a fairly simple set-up of a home-made capacitor and two home-made coils, stimulated by a magnet, positioned at the geometric center of a metallic pyramid will produce appreciable amounts of current, enough to run a small fan. The Output, he recorded, is measured at 12 volts, 1/4 amp, or 3 watts.



FIG 11: DESIGNED PARAMID

2.8 PREVIOUS RESEARCH ANALYSIS

Here, it is intended to discuss the similarities and dissimilarities observed in previous research work. It is also required to chalk out guidelines for practical testing.

2.9 SIMILARITIES

- 1 A Pyramid must be placed in a clean, airy place
- 2 The apex should always be pointing upwards
- 3 There should be some space above its apex & around
- 4 Pyramid should be kept at a distance from Electric & electronic gadgets.
- 5 Pyramid should always be aligned with North-South directions.
- 6 All the studied literature review that provided scientific evidences of energy within the structure.

2.10 DISSIMILARITIES

- 1 A variety of material of Pyramid was used by different researchers during the energy testing which includes,
 - Fiber Glass by Russian researchers
 - Copper (by Dr. Dhara Butt)
- 2 Russian scientists manipulated the basic shape of pyramid in their experiments and gave three different shapes on basis studied their functioning under laws of Quantum physics.

2.12 A BRIEF ANALYSIS

Apart from the similar or differential techniques developed to approach pyramid energy, the common conclusion derived from this analyses is clear that **Pyramid is not only a source of energy but it's reported as a constant and instant energy source.**

Dr. Dhara Butt's performed experiments that showed existence of energy. Still there was need felt for more detailed work done which could provide some directions for the probable and practical use of this energy resonator. This proposition is much satisfied by Russian scientists referring where they reported instant charging of the capacitors.

This leads to a probability of reducing the Time constant (τ) in capacitors equation such as The charge on the plates of the capacitor is given as:

$$Q = CV$$

As it is known that charging (Capacitance) and discharging (release) of a capacitors energy is never instant but takes a certain amount of time to occur with the time taken for the capacitor to charge or discharge to within a certain percentage of its maximum supply value being known as its Time Constant (τ).

The resultant time constant of any electronic circuit or system will mainly depend upon the reactive components either capacitive or inductive connected to it and is a measurement of the response time with units of, **Tau** – τ . which can be reduced by studying and applying the technique behind instant pyramid energy.

The research conducted by Russian scientist add enormous possible uses of Pyramid to enhance our techniques in almost every field of science, for instance confronting the weather severity with pyramid technology would save lives and reduce destruction of properties.

Referring to the study by Peter Grandics, the generation of electricity would be commercially practical because the charge-accumulating capacity of the pyramid is directly proportional to its surface area, a sufficiently large pyramid could potentially generate megawatts of power.

Thus, our common conclusion here from these studies is that Pyramid is not only a source of energy but it's been reported as a constant and instant source of energy through various repeated experiments which strengths the assumption of it working as a resonator. Consequently, with the relevant outcome of literature review we move to study the observational findings of this design aiming for a maximum strength point within the structure.

CHAPTER 3: PRACTICAL OBSERVATION

3.1 METHODOLOGY

The literature review of scholastic work authenticated the presence of strong and powerful energy inside the pyramids. Previous research works provided the motivation to take this study to the next level of experimental testing.

The proposed methodology has following specifications;

- Pyramid (Structure and material)
- Energy Analyzer Description
- Reading Precautions and Specifications
- Experiment Prerequisites

3.2 PYRAMID STRUCTURE DESCRIPTION

The pyramid used for the test was preferred because of its laser cut precision (to get desired angles of 51.83°). It has following features;

- Laser cut
- Copper made
- Angles 51.83°
- 6 Feet Base
- 52.5" Height
- 0.5" copper pipes



FIG 12: LASER CUT PARTS CONNECTED WITH RODS TO MAKE PYRAMID WITH ANGELS

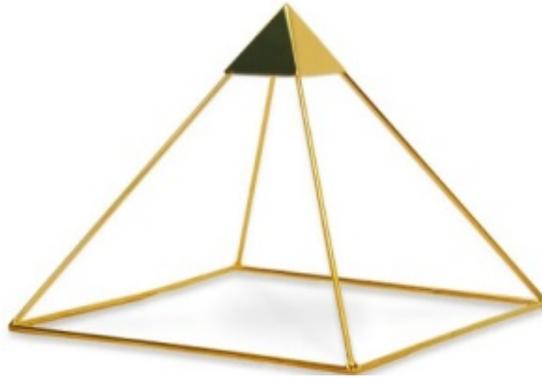


FIG 13: PYRAMID AFTER CONNECTED ALL THE PARTS

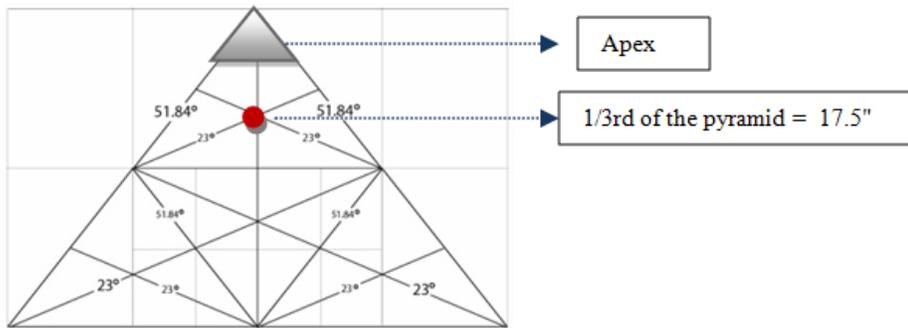


FIG 14: STRUCTURAL CALCULATIONS OF PYRAMID WITH ANGLES & APEX

3.3 EMF TESTER

Simple wave's analyzer can provide what we are looking for at this point. There is a variety of such detectors' range available in the market, starting from simple Gauss meters, or buzz stick to expensive and accurate meters. We intended to find something less expensive and more accurate that suits our needs and budget. Accordingly, we selected for following characteristics.



FIG 15: HF35C ANALYZER - RF/ MICROWAVE FIELD STRENGTH METER (DIRECTIONAL)

The HF 35C - Analyzer is preferred for the following reasons.

- **Antenna:** Directional Logarithmic Periodic “LogPer” 800 MHz – 3.0 GHz 45°
- **Accuracy / Linearity Deviation:** +/- 6 dB
- **Audible Tone:** The meter’s audio tone replicates the patterns and intensity of measured RF emissions
- **Signal Detection Type:** Peak, Average, Full signal – Analogue plus Digital (pulsed)
- **Measuring Ranges:** 0.1 –199.9 $\mu\text{W}/\text{m}^2$ // 1 – 1999 $\mu\text{W}/\text{m}^2$

Maximum display resolution is 199,900 $\mu\text{W}/\text{m}^2$, which requires the external DG20 Attenuator.

This analyzer is designed in such a way that it records digitally modulated signals' sound patterns. The analyzer is made by a German company Gigahertz Solutions. The company's website has provided sound samples for the signals identification. The sound option does not only identify the type of frequency of waves around the area but also digitally provide the values to recognize the strength with a 2 way identification which supports authentication of results.

In an open environment the range of frequency waves are from 20Hz to 20,000Hz in standard temperature and pressure. This HF35C Analyzer can recognize & detect following types of waves;

- Blue tooth pairing & max speed
- DECT
- GSM 1,2 & Plus
- LTE up & downlink
- Mobile signal waves
- Notebook, laptops, microwaves (all the home appliances)
- Radar

- UMTS
- WLAN
- MarkierungUngepulstes signals - means unknown frequency waves

Along with its digital meter and sound system it can easily detect and identify the type of frequencies around the area. 'MarkierungUngepulstes signals' German word meaning Unknown frequency waves. UN-pulsed signals or signal portions by their very nature are not audible, HF35C detect the values in 2 ways,

- RMS values, stands for root mean square value or average value of the waves
- Peak values, which give the readings for the maximum point in the waves and all the values are in $\mu\text{W}/\text{m}^2$. These values can convert in to V/m. The conversion from $\mu\text{W}/\text{m}^2$ to mV/m ($1.0 \mu\text{W}/\text{m}^2 = 19.4 \text{ mV}/\text{m}$).

This directional detects and measures radiation from cell phone towers, cordless phones, wireless routers (Wi-Fi), microwave oven leaks and most other wireless communication devices, provides precise assessment & true peak measurements of RF radiation between 800 MHz and 2.5 GHz.

It was an affordable, easy to use meter that detects both analogue and pulsed digital signals. It has digital display option in microwatts / square meter (mW/m^2) with audio analysis of signals proportional to field strength. The Logarithmic-Periodic antenna helps locate the exact direction of radiation.

3.4 EXPERIMENT MEASUREMENT

3 different Location comparisons (1 open air and 2 indoor locations)

- Outside the pyramid values for comparison with inside (structure) values
- Comparison of energy detection under the apex at different points
- Weather report (conditional for open air location)

3.5 READING COMPARISONS

3.5.1 Location 1 (Indoors)

A copper Pyramid was placed in clean airy room. This room was kept free of mobiles, internet, Ethernet and other frequencies. There was no active electric circuit in that room. "Outside Pyramid" reading

indicates readings of the four directions in location 1 other than the pyramid so we can have the comparison of general frequencies of the room as compared to the values taken inside the structure of pyramid.

Location 1(indoor)			outside	Pyramid		Inside	Pyramid	
Total height = 52.5"					17.5"	26.25"	8.75"	6.56"
Peak value ($\mu\text{W}/\text{m}^2$)	North-east	south-east	south-west	North-west	1/3rd	1/2 (half)	1/6th	1/8th
1	37	15	27	34	76	20	24	48
2	52	14	19	16	64	65	44	48
3	43	10	39	25	80	75	48	25
4	24	13	41	27	51	44	51	50
5	36	19	34	28	70	78	76	45

TABLE 1: PEAK VALUES IN $\mu\text{W}/\text{M}^2$ AT LOCATION 1

Location 1 (Indoor)			outside	Pyramid		Inside	Pyramid	
Total height= 52.5"					17.5"	26.25"	8.75"	6.56"
RMS values ($\mu\text{W}/\text{m}^2$)	North-east	south-east	south-west	North-west	1/3rd	1/2 (half)	1/6th	1/8th
1	8	14	11	15	17	13	9	4
2	8	9	10	16	26	16	6	11
3	6	8	8	11	11	10	20	21
4	11	13	17	8	18	9	2.7	13
5	8	7	10	11	13	13	6	16

TABLE 2: LOCATION 1 RMS VALUES IN DIFFERENT PLACES INSIDE & OUTSIDE PYRAMID

3.5.2 Location 2 (Indoors)

Second indoor location reading were taken for comparison, and this location was more spacious as compared to location one. But it has some active electric circuits, Ethernet and internet gadgets in that room with in4 to 11 feet distance from the pyramid.

Location 2(indoor)								
RMS values ($\mu\text{W}/\text{m}^2$)	North-east	south-east	south-west	North-west	1/3rd	1/2 (half)	1/6th	1/8th
1	25	52	25	33	53	56	25	23
2	24	45	33	29	66	59	44	36
3	30	44	47	40	80	56	31	67
4	18	22	28	16	27	26	20	19
5	27	26	30	24	29	27	26	22

TABLE 3: RMS VALUES AT LOCATION 2

Location 2(indoor)			outside	Pyramid		Inside	Pyramid	
					17.5"	26.25"	8.75"	6.56"
Peak value ($\mu\text{W}/\text{m}^2$)	North-east	south-east	south-west	North-west	1/3rd	1/2 (half)	1/6th	1/8th
1	35	62	31	40	103	78	60	56
2	44	51	39	37	117	84	71	51
3	50	52	53	48	138	94	64	90
4	30	35	39	28	95	79	59	58
5	39	31	39	29	87	70	60	48

TABLE 4: PEAK VALUES AT LOCATION 2

3.5.3 Location 3 (Outdoors)

Location 3 was an open air location surrounded by housing scheme. It was a hollow pyramid structure and some of the readings were taken on windy days which resulted in obstructed values. Overall, values taken at location 3 showed much higher values as compared to indoor location 1 & 2.

Location 3 (Open air)		Outside	Pyramid			Inside	Pyramid	
RMS values ($\mu\text{W}/\text{m}^2$)	North-east	south-east	south-west	North-west	1/3rd	1/2 (half)	1/6th	1/8th
RMS								
1	42	64	37	21	45	26	31	24
2	32	50	27	10	190	180	170	44
3	50	59	47	38	74	47	62	54
4	54	63	39	41	99	74	60	81
5	60	54	30	32	140	128	100	89

TABLE 5: READING AT LOCATION 3 (RMS VALUES IN $\mu\text{W}/\text{M}^2$)

Location 3(Open air)			outside	Pyramid		Inside	Pyramid	
					17.5"	26.25"	8.75"	6.56"
Peak value ($\mu\text{W}/\text{m}^2$)	North-east	south-east	south-west	North-west	1/3rd	1/2 (half)	1/6th	1/8th
1	78	95	50	48	101	45	60	45
2	64	84	58	38	199	190	188	78
3	84	78	80	75	158	98	130	95
4	76	72	91	84	187	104	117	130
5	89	75	59	70	195	185	170	190

TABLE 6: PEAK VALUES AT LOCATION 3 IN $\mu\text{W}/\text{M}^2$

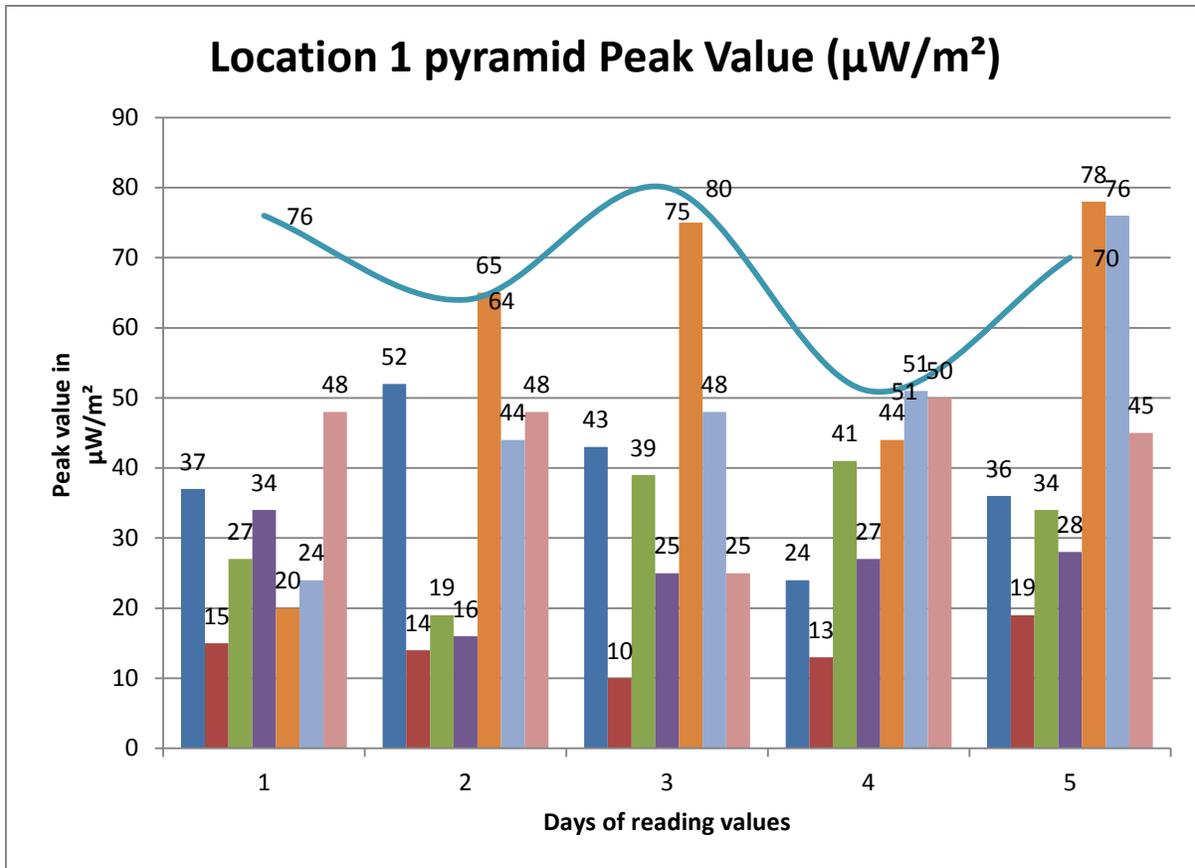


FIG 16: PEAK VALUES AT LOCATION 1

All 3 locations had same temperature most of the time when readings were been taken, also locations were having less outside waves involvements such as electric circuits, laptops, home appliances etc. In Fig. 20, the readings were taken on 5 different days. RMS values being recorded on 8 different places, in the above graphs the values at 1/3rd from the apex are in the parabolic line and it clearly state that the values under the apex at 1/3rd are getting the maximum values in not only in side pyramid but also surrounding values are less. In this graph the RMS values are in $\mu\text{W}/\text{m}^2$ are changing from $2.7 \mu\text{W}/\text{m}^2$ to $21 \mu\text{W}/\text{m}^2$, where the maximum values are at 1/3rd on specific days. In these values the audio sound is also very important as to find out what kind of frequency values are present. At location 1, audio shows the values are 'unmarked' or 'unidentified'.

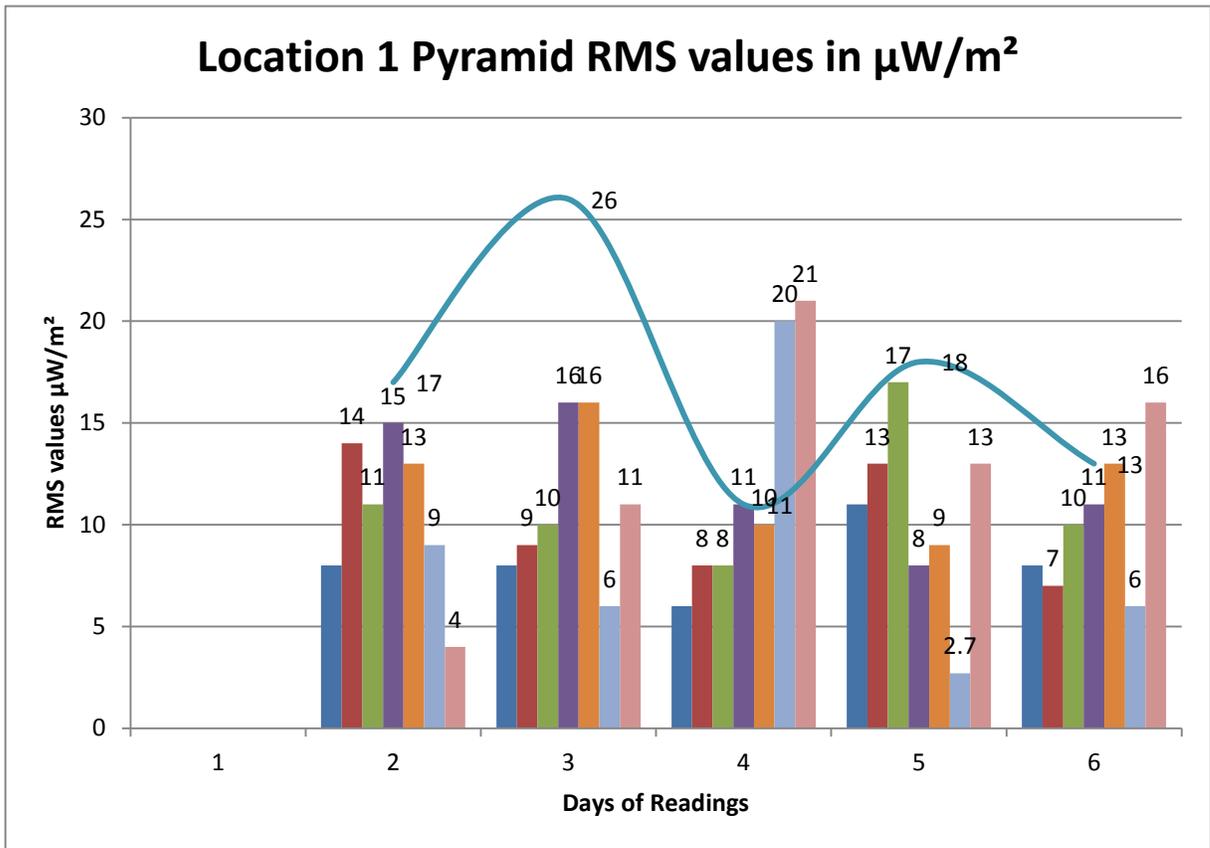


FIG 17: RMS ($\mu\text{W}/\text{M}^2$) VALUES AT LOCATION 1

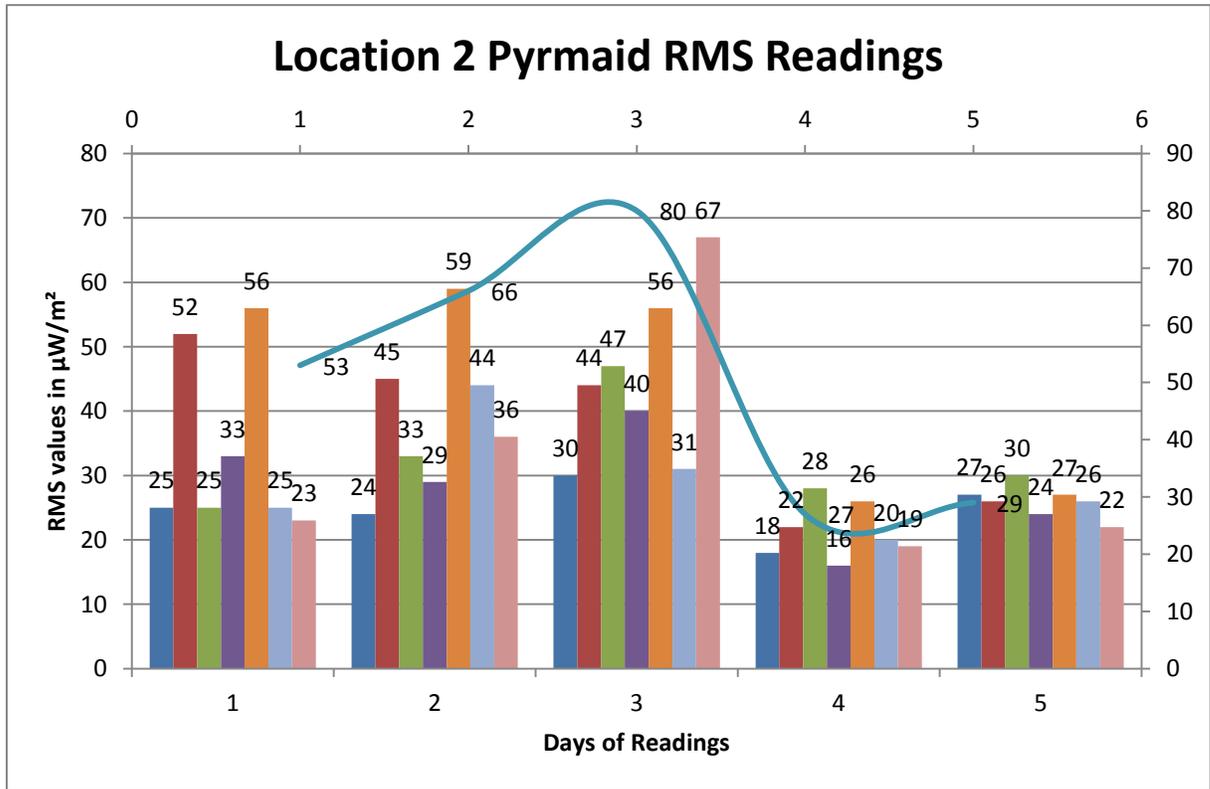


FIG 18: RMS VALUES IN $\mu\text{W}/\text{m}^2$ AT LOCATION 2

As in Fig. 21, Peak values of location 1 are shown in graph, values at 1/3rd mostly have high values when compared to all the other side of the pyramid and also around the outside area of pyramid. Values of peak ranges from 13 to $80 \mu\text{W}/\text{m}^2$.

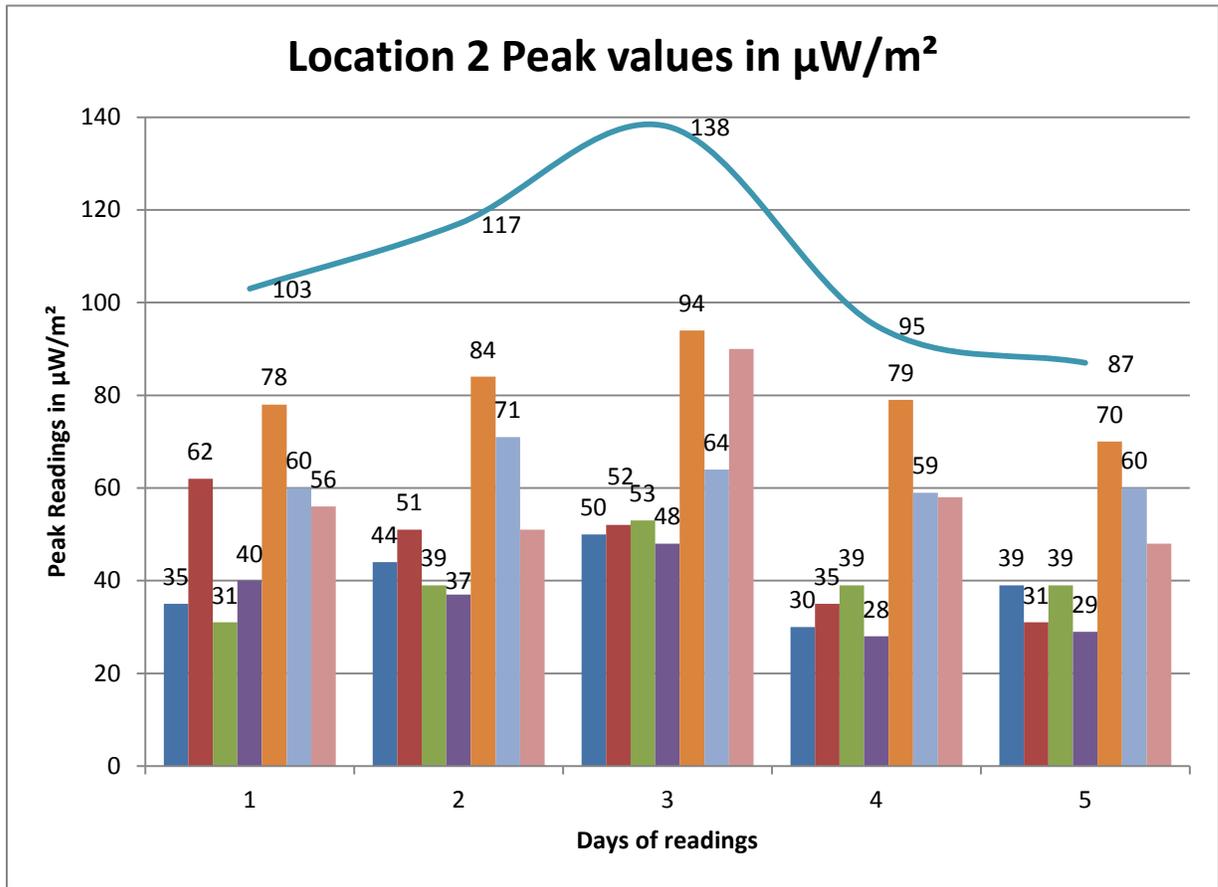


FIG 19: PEAK VALUES IN $\mu\text{W}/\text{M}^2$ AT LOCATION 2

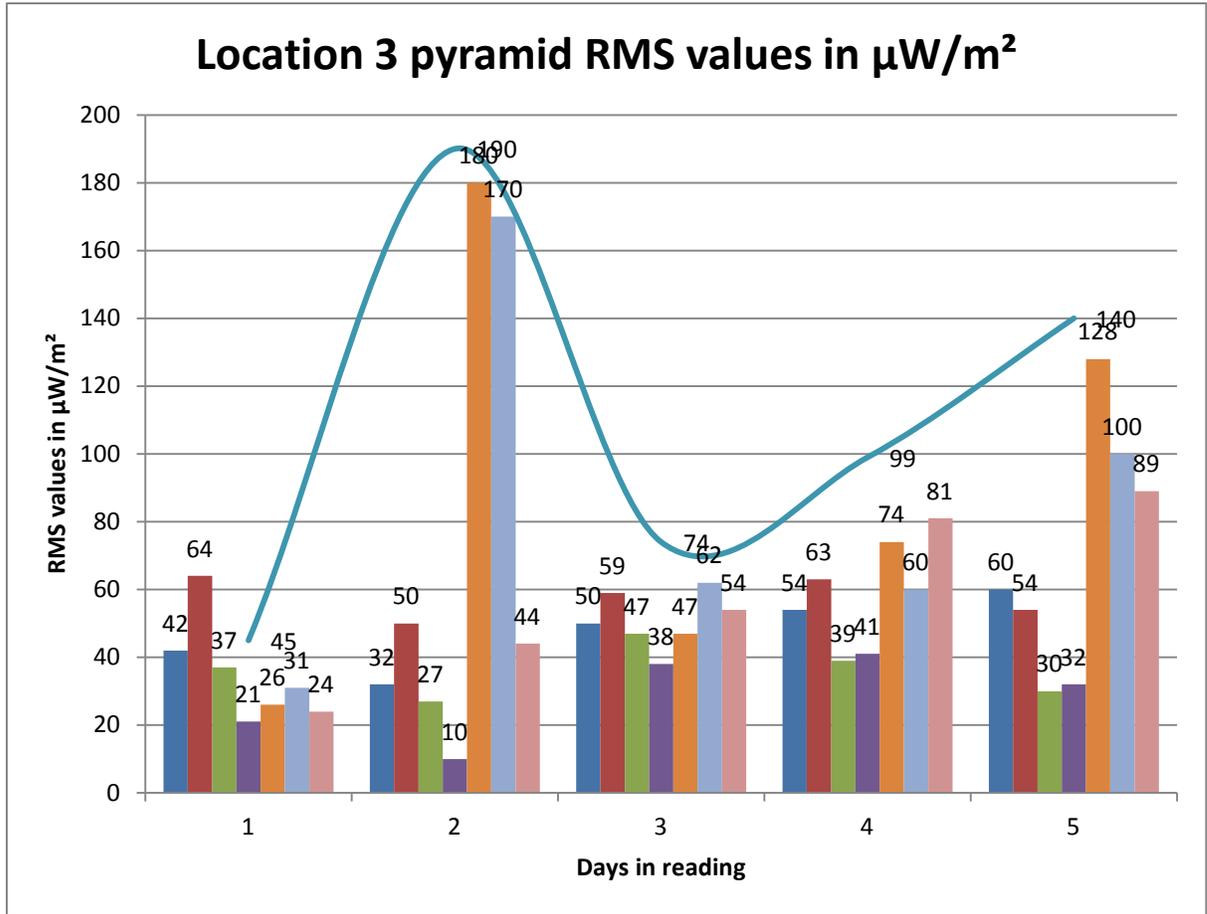


FIG 20: RMS VALUES AT LOCATION 3

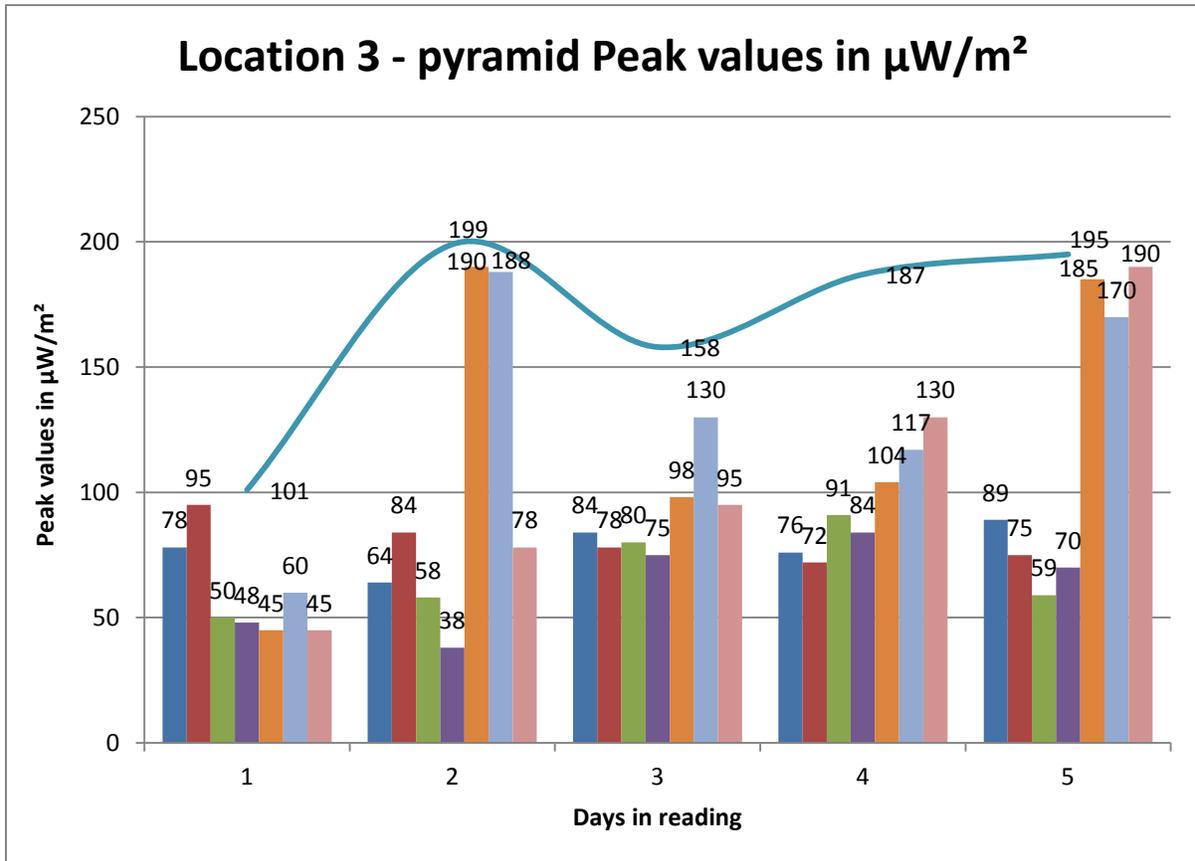


FIG 21: LOCATION 3 PEAK VALUES OF OUTSIDE LOCATION.

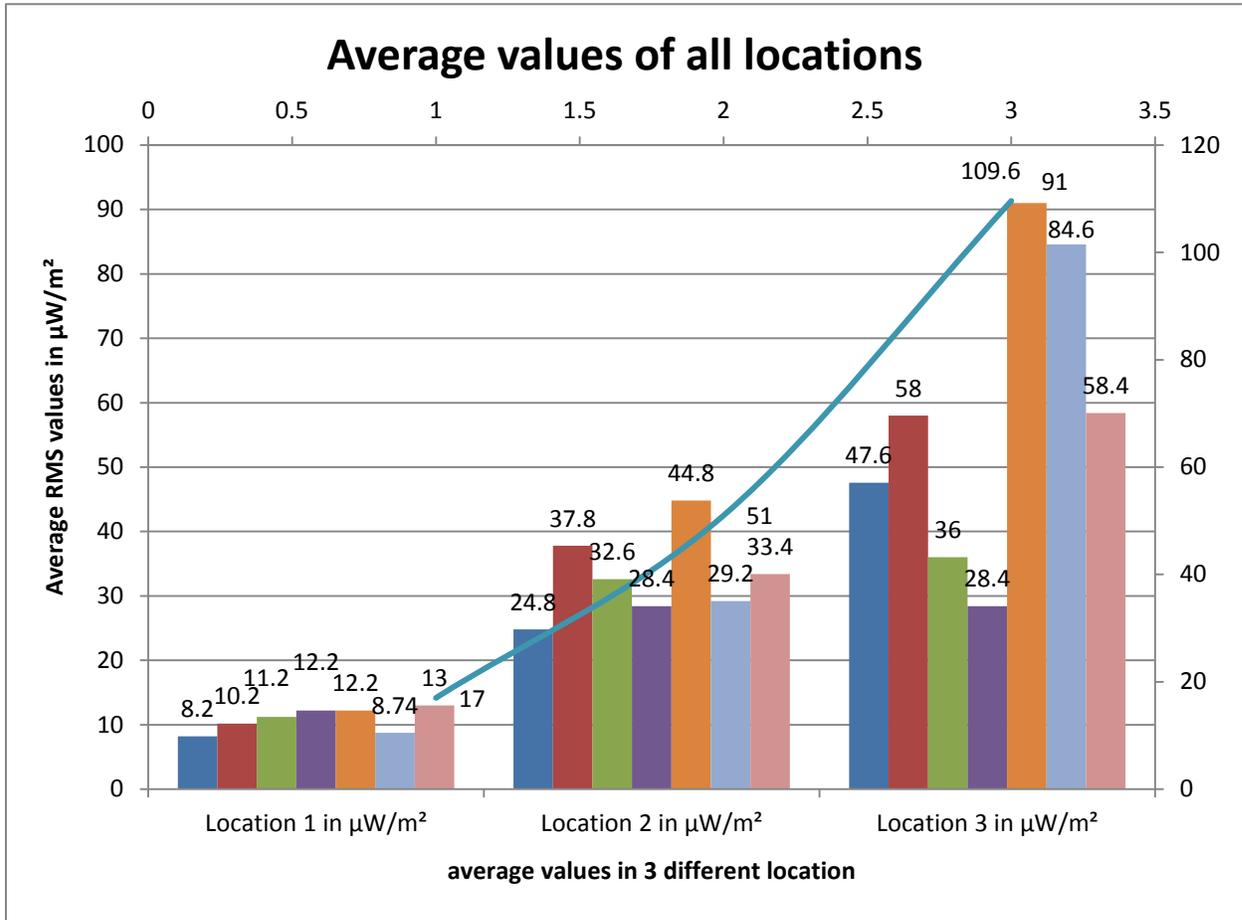


FIG 22: AVERAGE VALUES OF ALL THE LOCATIONS

Average values in all 3 locations	North-east	south-east	south-west	North-west	1/3rd	1/2 (half)	1/6th	1/8th
Location 1 in $\mu\text{W}/\text{m}^2$	8.2	10.2	11.2	12.2	17	12.2	8.74	13
Location 2 in $\mu\text{W}/\text{m}^2$	24.8	37.8	32.6	28.4	51	44.8	29.2	33.4
Location 3 in $\mu\text{W}/\text{m}^2$	47.6	58	36	28.4	109.6	91	84.6	58.4

TABLE 7: READING OF ALL THE LOCATION (AVERAGE)

The average values of three different locations been converted into graphs to conclude the core outcome of all the experiments. The average value of location 1 is $17\mu\text{W}/\text{m}^2$, location 2 the average values are $51\mu\text{W}/\text{m}^2$ and outdoor values are $109.6\mu\text{W}/\text{m}^2$.

The sum up of all the observational values we may conclude that there is successful detection of energy within the pyramid structure with repeated reading experiment at three different locations for the period of five days, thus, supporting the assumption of pyramid working as resonator of waves. In this resonator the reflection phenomena provides a strength point. The peak point of this directed energy is at 1/3 right under the Apex.

CHAPTER 4: PROBABILITY

This chapter confines the perceptive Probability of Pyramid energy which has a maximum strength value at 1/3 under the apex of structure. This structure as we know now is a composition of angles and shapes involved which supportively leads to a probability of a scientific relation of waves' reflection behind this energy and its enhanced strength at a certain point.

4.1 PYRAMID A PRISM

Pyramid as obvious from the precision of its angles and shapes enhance the probability of it working as reflector of longitudinal waves. These longitudinal waves enters a pyramid structure that reflects the maximum waves directing them to 1/3rd level of the pyramid under the apex where by coinciding they are producing energy.

Considering sound waves behavior, it is for a reason that a wall is described as having higher "acoustic impedance" than the air, and when a sound wave encounters a medium of higher acoustic impedance there is no phase change upon reflection.

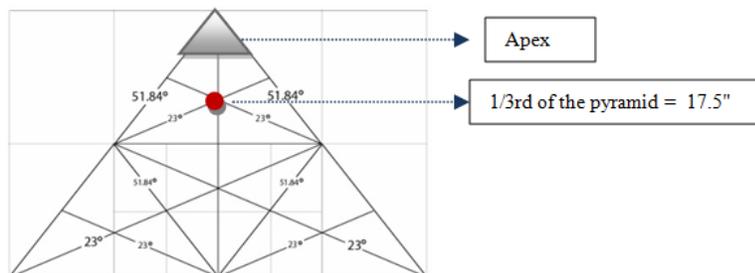


FIG 23: DESCRIBING ANGELS FOR WAVES FOR MOVEMENT IN PYRAMID

After manifesting itself in the pressure zone by the hard surface, the smooth copper finish and its angular shape directs these waves towards 1/3rd area of the pyramid where by coinciding the reflected waves the pyramid structure accumulate energy which is consistent in nature.

Although the energy reading experiment provides positive values within the structure at other points as well, but the maximum of this energy is detected at the 1/3rd., which supports the possibility of directing maximum number of waves reflect back to that point where they coincide and as result to that energy is produced.

The Probability of waves' reflection encourages further sensitive experiments to study the nature of waves. The alignment with North shows a relation of waves with the motion of the earth. More scientific evidences are required to study details of this proposition.

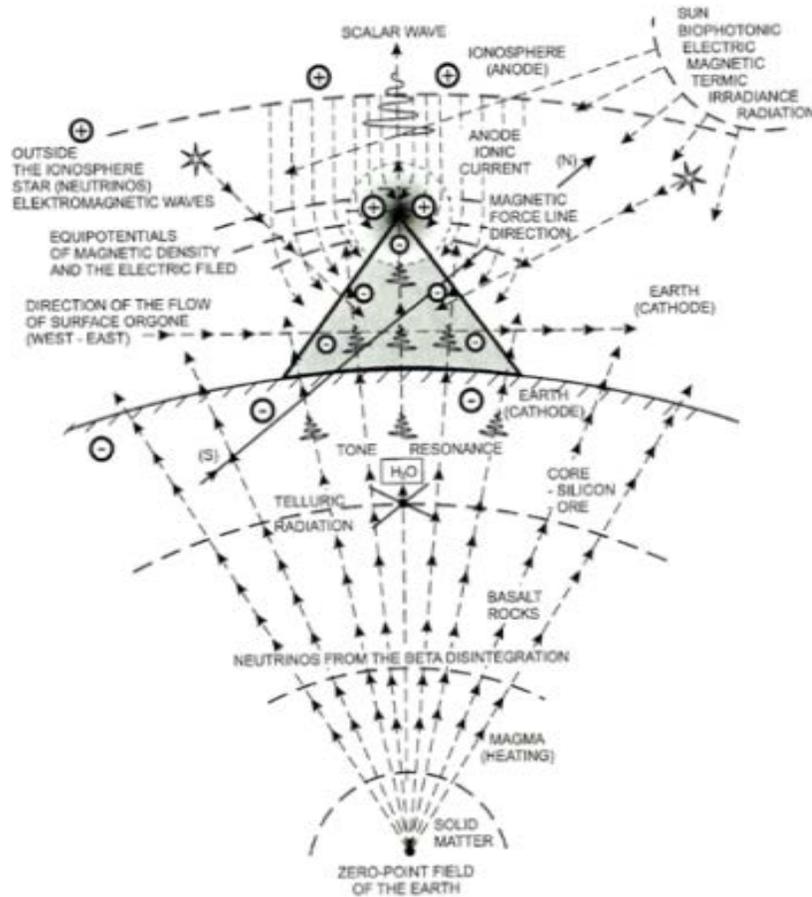


FIG 24: FIGURE SHOWS HOW MANY WAVES MAY BE RESPONSIBLE FOR THE PROCEDURE

Peter Grandics referred to the Russian research in his thesis and argued that the Russian study also noted a reduction in the frequency of lightning in the vicinity of the pyramid. He reasoned that as electrification of thunderclouds drive severe weather including lightning phenomena, depleting charges from thunderclouds would reduce both lightning activity as well as atmospheric turbulence. With the increasing frequency of hurricanes and other severe weather phenomena, installation of properly sized pyramidal electric transducers in hurricane-prone heavily populated areas could become more than just vehicles of power generation, and they could have additional benefits by saving both lives and property. In his study Peter proposed that possibly thousands of terawatts of power are generated in the troposphere by

thunderstorms. A pyramidal structure, with its optimal geometry and construction, can act as a suitable charge sink, capturing this electric power and preventing its dissipation.

4.2 SCOPE

This project concludes enormous potential for future research and study, supported by previous literature review and observational experiment which shows huge potential for future scope.

Future studies can target pyramid energy in two ways,

- 1 General Energy Source
- 2 Specified Energy Source

In General, we can study Pyramid with all its specifications to find out the technique resulting in energy. The presence of energy in it may lead us to understand this phenomenon and help us enhance our energy production techniques starting from a small circuit to bigger resonators. In this category, we may study the relationship of the design responsible for the production of energy, so we may manifest them as techniques for enhancing our technology in all possible applications.

Further studies can also identify pyramid as a specified energy source, with which we can target specific technique or energy, referring to the Russian study, instant charging of capacitors can be studied in further details for its targeted use in the industry.

Further investigation would lead to probability of reducing the Time constant (τ) in capacitors equation such as the charge on the plates of the capacitor is given as:

$$Q = CV$$

EQ. 4: CHARGE

As it is known that charging and discharging of a capacitors energy is never instant and it always takes a certain amount of time. The resultant time constant of any electronic circuit or system mainly depend upon the reactive components either capacitive or inductive connected to it. The measurement of the response time with units of, Tau – τ . can be reduced by studying and applying the technique behind instant pyramid energy.

4.3 GAUSS'S LAW AND PYRAMID

It is a well-known factor that the ratio of the apothem to half the base obeys the Golden Ratio of phi Φ . Applying the Gauss's law; the electric flux is defined as:

$$\Phi_E = \mathbf{E} \cdot \mathbf{S} = ES \cos \theta,$$

EQ. 5: GAUSS'S LAW

Since, the area is not planar in pyramid design, so the evaluation of the flux will requires an area integral as the angle will be continually changing. Future study can derive formulae. It is much possible that we would be able to calculate the total electric flux directly proportional to the area of pyramid. This may lead us to find the specific size to produce required amount of electric flux.

Russian study also noted a reduction in the frequency of lightning and earth quake in the vicinity of the pyramid. With the increasing frequency of hurricanes and other severe weather incidents, installation of properly sized pyramidal electric transducers (as reasoned by Peter Grandics) in hurricane-prone heavily populated areas could help reduce the severity of such natural disaster. This will help us save both lives and properties of the community.

The acoustic impedance property of Pyramid is also an attractive area, where behavior of the sound waves can also be studied. The overall future scope of pyramid appeals avast outcome of benefits. All the pyramid researches including the observational finding of a maximized energy spot motivates to take this study to fine research levels.

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