

On Instantaneous Electrical Communication

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Almost a half of a year has passed since the article of "Nicola Tesla and Instantaneous Electrical Communication" was published [1]. This publication aroused rather wild readers' reaction. There was everything: astonishment, distrust, and accusation of incompetence in the basic clauses of electrophysics. Thus, the most of readers' opinions on the problem came to the notion that it is impossible to transmit a signal (information) at super-light speed, i.e. it is "pseudoscientific". There is the question what was incomprehensible in that article for the readers who insist on the "right" scientific positions. Evidently, comprehension is a very difficult process. The "pseudoscientific" instantaneous radio communication is in opposition to the "right" common one. This caused the problems in the readers' acceptance of the idea of such instantaneous communication. Therefore, it is useful to give a popular excursion to the area of the instantaneous electrical communication. Those basic points, which were the most difficult for readers' comprehension, will be stressed in this article. Let us try to approach the comprehension of the "pseudoscientific" principle of the instantaneous electrical communication by another way.

Since their school days the readers have known M. Faraday's experiments which were made on electromagnetic inductance. Let us revise only one, which is useful in our case. There is a conductor (i.e. a coil) in the magnetic field of a permanent magnet. A galvanometer is connected to the ends of the conductor. If the conductor (i.e. the coil) or the magnet is moved then the galvanometer needle is deviated that shows the occurrence of induced current. It is a well-known and clear fact. Let us change the experiment. If the distance from the conductor (the coil) to the magnet is increased and the magnet is moved then the practically same result is obtained. There are some important distinctions, which appear when the distance is increased. Nevertheless, they will be observed below. Is it possible in principle to transmit a signal (information) by movement of the permanent magnet field? Certainly, it is necessary for such a magnet communication line to operate at some appointed resonance frequency to increase the efficiency of its operation. This is the very point where the opposition of the "right" approach and the "pseudoscientific" approach appears. The author will try to overcome this barrier in the readers' mind by the end of the observation of the issue.

Above all, let us revise what the very principle of the existent radio communication is based on. Data

(information) transmission is the **change** of something (in our case it is the electromagnetic field) that must cause the corresponding **change** at a receiver. It is the only way of transmission. The receiver, which gets electromagnetic signals, must receive the **change** of the electric or the magnetic field (or both these fields) to create the induced current (i.e. voltage) in the receiving circuit and to reproduce the information. Since the question has concerned the magnetic field then for information transmission the magnetic flow (field) must be changed in value on time, i.e. $d\Phi/dt \neq 0$. The practice proves that the speed of this process can not exceed the light speed. This is the essence of that "right", which does not allow accept the opposite idea that it is unnecessary to change the value of the magnetic flow (field) in relation to time for a signal transmission, i.e. at $d\Phi/dt = 0$. **This is the starting point of the instantaneous radio communication**, which underlies the "pseudoscience"; it is that very barrier in conscious which the author tries to break.

Let us modify M. Faraday's experiment made on the movement of the magnet. A round or ring magnet, which is usually applied in the loudspeakers of acoustic systems, is placed on the axis, which coincides with the axis of the poles. A common flywheel-rotor, which is possible to rotate on the axis in both directions, will be obtained. There is a magnetic field round this flywheel. A galvanometer is connected to the ends of a conducting frame. The frame is placed close to the flywheel (Fig. 1).

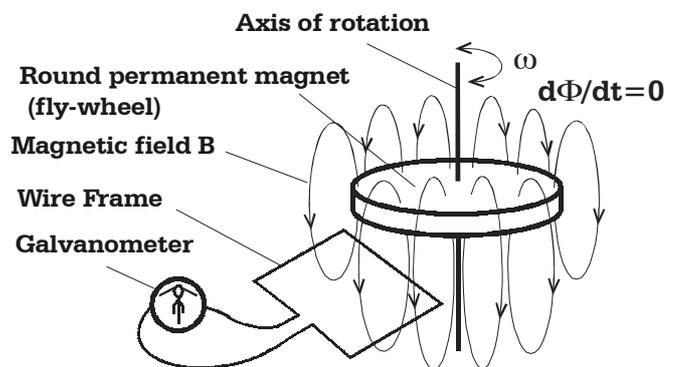


Fig.1

The wire frame, which is located in the magnetic field of the fly-wheel

The magnetic field of the fly-wheel varies depending on the state of the device, i.e. it is rotating or stopped. First the stopped fly-wheel is observed.

If the fly-wheel is stopped then the magnetic field, which runs through the frame, is static. The magnetic field of the frame is **homogeneous** since it has radial-beam symmetry. The field of every point of the frame, which is equidistant from the rotation axis of the fly-wheel, has the constant value of the magnetic inductance **B**. Since the field is static then it is stationary, and that means $d\Phi/dt = 0$. Nothing occurs, and data of the device is 0. What will occur if the fly-wheel is set in rotational motion?

The magnetic field of the rotating fly-wheel runs through the circuit. It rotates as well as the fly-wheel does. The data of the galvanometer, which is connected to the circuit, will again be equal to 0! Indeed, the **homogeneity** of the magnetic field, which has radial-beam symmetry, is not broken, and the value of the magnetic inductance **B** is not changed. It should be noted that the homogeneity of the magnetic field rises as the distance from the magnet to the conductor is increased. If the distance is great then the homogeneity of the field is independent of the magnet form (Fig.2).

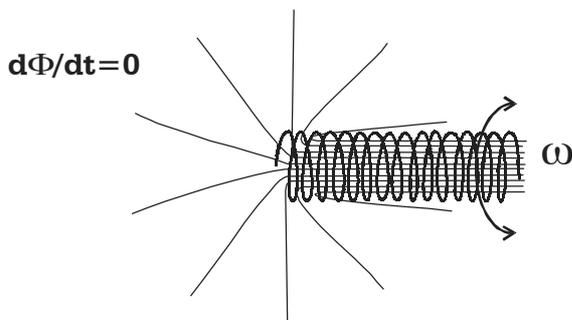


Fig. 2

The left end of the long thin coil with continuous current running inside and approximate radial-symmetrical lines of magnetic field which emanate from the current

This causes the intensification of the effect, viz the value of magnetic inductance **B** is not changed in any point of the circuit, which is equidistant from the rotation axis of the magnet. At the same time the value of the magnetic flow is not changed in time on the plane of the frame, i.e. $d\Phi/dt = 0$ (**stationarity**). Thus, there is nothing but **information** (i.e. if the magnet rotates or not, what the direction of the rotation is, what the speed of the rotation is), whereas the galvanometer, which is connected to the frame, does not show anything since there is $d\Phi/dt = 0$ in any case. Commonly the frame reacts to the dynamics, which is represented by the equation of $d\Phi/dt \neq 0$, and gives the signal to the galvanometer. This is the principle of operation of any input circuit (antenna) of a modern "right" receiver. This is the very cause why such receivers are not able to get the signal which is transmitted by a "pseudoscientific" instantaneous dynamic method, where $d\Phi/dt = 0$. Some clarity should be introduced into the issue.

Nevertheless, there something occurs in the frame, which is placed in the dynamic field of $d\Phi/dt = 0$. It is well-known fact that there division of electric charges occurs in the frame at the motion of the magnetic field

of $d\Phi/dt = 0$. In Fig.3 it is demonstrated by the example of a frame and a copper plate, which move in a homogeneous magnetic field. There is the division of charges, and there is no current (the data of galvanometer is 0). The readers should not mix up this case with the motion of a copper pendulum between the poles of a magnet or with magnetic decrement (i.e. oscillations damping). The pendulum is soon stopped since very great Fuco's whirling currents appear inside it. The readers have learnt these phenomena since the school days. It should be remembered that these currents appear only if $d\Phi/dt \neq 0$.

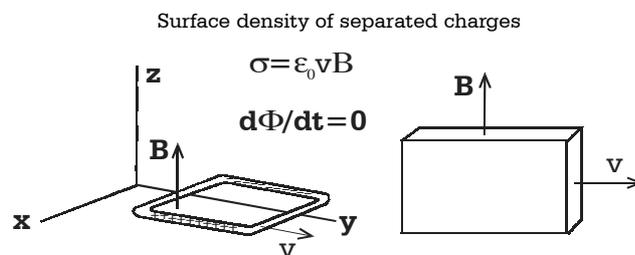


Fig. 3

Both the frame and the metal plate motion in a homogeneous magnetic field

In the Photo 1 there are two similar receivers and a transmitter, which is placed forward of the receivers. These are **operating** devices. The left receiver is a common "right" one. No detail has been recast in it. The right receiver is "pseudoscientific", i.e. its input circuit ("antenna") transmits a signal to the receiver when the dynamics of the field is $d\Phi/dt = 0$. Surely, the dynamics of $d\Phi/dt \neq 0$ influences on this unusual "antenna" as well. Nevertheless, in this case the data of input of the receiver is 0. The "antenna" can be seen behind the "pseudoscientific" receiver. The readers themselves are able to invent the constructions of such antennas, which react upon the division of charges and in this case transmit a signal to the input of the receiver. Apparently, the receiver does not have a common antenna as there is no need in it. The static magnetic field, which is generated by the receiver, acts as the antenna. According to information, this field is set in motion by the energy of the transmitter. This working model is tuned to work in broadcasting range of VHF (FM). Power capability of the receiver corresponds to the capability of a common radio microphone, which is used by entertainers performing in a concert hall. At the first testing there was an interesting effect. All three devices were tuned in the same frequency. The transmitter was placed at about 10-meter distance from the receivers, which were placed side by side. The "right" receiver reproduced music. The "pseudoscientific" one sounded as a ringing buzzer of 1000 Hz, which was a signal relayed by the "pseudoscientific" transmitter. This is a very uncommon fact that two kinds of radio communication, which are different in principle, can not operate together in spite of they are tuned in the same frequency. There are many other unusual facts, i.e. huge antenna-tower systems are not necessary, static magnetic field has high penetration capability, and many other facts like these.

In Fig.4 magnetic field distribution is demonstrated in the case if the magnet is covered with a screen made of a magnetic (para-diamagnetic) material. The magnetic field \mathbf{B} is abruptly decreased. However, it cannot be totally compensated.

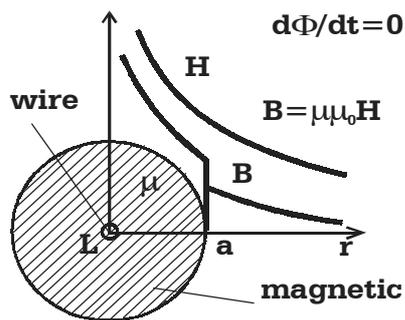


Fig.4

The magnetic field of forward current at the presence of a magnetic

Surely, this **working** model is not completed and, therefore, it operates rather badly. It is natural, therefore now the attitude to this working model should be the same as to Popov and Marconi's storm indicator (receiver). In spite of the fact that it operates according to the same principle of $d\Phi/dt \neq 0$, any modern simple receiver excels the storm indicator in all parameters.

A rather interesting situation concerned with the modern radio electronic companies has appeared. In spite of some obvious advantages of the "pseudoscientific" systems of radio communication in relation to the "right" ones, no company produces such systems. Such systems are required, and there is no competition in the market. The production of the systems can be very profitable. However, the barrier in mind must be broken before. In any case, if the market of the radio communication electrical equipment is developed then the work will be started from the development of the existent "pseudoscientific" working model of the new kind of radio communication.

In Fig. 1 the magnetic field of the fly-wheel tends to infinity. If the fly-wheel is set in rotational motion or stopped then the **whole** its magnetic field is set in the corresponding motion. If the receiver is situated within the magnetic field of the fly-wheel then a signal immediately appears in it independently of the distance from the fly-wheel to the receiver (from several meters to light years). At that the receiver reacts upon the motion of the homogeneous magnetic field by division of charges. This fact is very difficult to be realized. Once again it should be noted that the energy changing dynamics of $d\Phi/dt \neq 0$ obeys the theory of relativity, and, hence, cannot occur at super-light speed. Meanwhile, the opposite energy unchanging dynamics of $d\Phi/dt = 0$ can immediately change its state at the static energy. These two processes are opposite to each other. According to mathematics, this phenomenon can be explained. These two dynamics can be observed as the parts of the complex number of $a + ib = z$, where

$i = \sqrt{-1}$. The theory of relativity, where processes cannot proceed at super-light speed, is the one part of this complex number, and the dynamic, which allows processes run at super-light speed, is the other part of the number. Everything sorts itself out. Since in the Nature everything is interrelated then the observed dynamics are interrelated by the absolute value and the argument just as parts of any complex number are. In this case we should appeal to **complex physics**. According to the complex approach, even immediate change of state of two very remote particles is placed in different light in quantum physics. The most obvious way to represent a complex number is graphic one, i.e. it is shown by two points, which are situated on mutually perpendicular lines. Scientists look for the possibility of existence of parallel worlds. It is expedient to find them in the perpendicular direction; however, the barrier in mind does not allow follow this path.

In the first publication there was mentioned Hz vector, which mathematical designation does not contain the light speed. Moreover, the vector of magnetic inductance is dual (complex). Its one part obeys the light speed, and the other part does not do it, in spite of the common point of attack of the both parts. This is derived from the structure of the electromagnetic field of the dynamic electron wave (mass-charge).

The common radio communication within the Solar System has time delay which is evaluated in minutes. This fact is proved by the communication with the remote space apparatus. These minutes give trouble but are quite acceptable. At transmission of information through the distance, which many times exceeds the value of the Solar system, the time delay comes to light years. It is unacceptable; therefore it is necessary to turn to the instantaneous radio communication. For achieving this aim it is possible to use the Earth magnetic field. It has very high homogeneity at a great distance. Then the field should be set in motion by an electric signal, which runs by a very long capacitor placed on the Earth surface. That is to say we cannot change the electric charge of the Earth, which is about 600000 coulombs; hence, we cannot change the value of its magnetic field. Thus, only one variant of dynamics is acceptable, viz $d\Phi/dt = 0$. It is interesting what frequencies can be used for the communication in this case. Since the charge and the capacity of the Earth taken as a capacitor, are less than 1Farad then the frequency is nearly impossible to be more than tens of hertz. Thus, only low frequencies could be used. It is required a 6000-kilometer capacitor to set in motion the Earth magnetic field at the frequency of 50 hertz. This is the exact thing to have been done. (The 6000-kilometer distance is the length of the Chinese Wall we can assume that it was a part of some global telecom system). Egyptian pyramids were the receiving part of the instantaneous space communication. Many scientists have realized this fact. The numerous investigations of the pyramids were unsuccessful. Therefore, the investigations were made in the view of $d\Phi/dt \neq 0$.

However, it is mistaken because they operate on the principle of $d\Phi/dt = 0$. There is great charge division inside them at the motion of the homogeneous magnetic field of the Space.

The researchers of the pyramids detected powerful electric processes, which occur inside the pyramids. However, the essence of the processes was unknown. The subsequent investigations should be made based on other positions. In this case it will be clear that the pyramids cannot be placed at any part of the Earth. The pyramids interact with the charge of the Earth. The orientation on the homogeneous magnetic field of the Space due to the Earth magnetic field is important. It will appear that the moving homogeneous magnetic field of the Space has value of $2.086 \cdot 10^{12}$ tesla. This huge value can be easily calculated by any physicist. Nowadays the scientists are satisfied by the notion of cosmic "vacuum". However, it is the known fact that the energetic capability of the "vacuum" is huge. That is proved by the reduced value of the magnetic inductance of the so-called vacuum. The dynamics of celestial bodies will be observed in a different way, i.e. as interaction of moving electrically charged masses (mass-charge-electromagnetic field), which are divided just as the charges in the moving homogeneous magnetic field of the Space are done. This will cause

the removing of gravitation as one of the basic concepts of physics. Therefore, this notion will be useless in complex physics. However, nowadays the **complex physics** itself is just the "greatest pseudoscience". Let us conclude the article looking at the Photo 1, which represents my **working** model of the instantaneous electric communication.

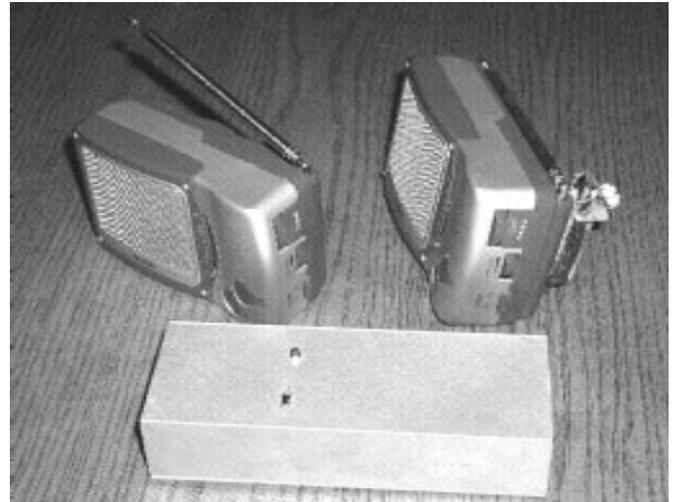


Photo 1

Update News from LUTEC, AUSTRALIA

1st November 2002

The switch is still causing us problems. We are able to run the generator up to a certain speed, any faster and the transistors fail. Even at this relatively slow speed the generator is able to supply electricity, not enough to support all the electric requirements of a home, but it would probably supply sufficient for the lighting. We could say "that's close enough" and go ahead and produce what we have, but we are determined and strongly committed to not go to market until we have a machine that works efficiently and is therefore as close to breakdown-proof as possible. We also believe we are close to finding the solution to our challenge. The work therefore continues - we have intensified our efforts significantly in order to bring the solid-state switch to a standard acceptable to our purposes. We have now approached five separate individuals from different universities in Australia and the United States, and have asked them to take a look at the problem on a consultancy basis and see if they can rectify it. At the same time we have asked three separate electrical engineers to design and build or suggest various circuits that we could introduce to fix the problem. Meantime we are continuing our own efforts to solve this vexing issue. In all we have eleven separate groups working on this problem, it is only a matter of time before we find the answer.

PATENT NEWS

Patent has now been granted in all the OAPI nations of Africa. These are the French speaking nations of Africa. The deed of patent will arrive in due course but protection is now available. Processing is continuing elsewhere.

GOVERNMENT REBATES (AUSTRALIA)

Please note there are NO rebates available for the LUTEC 1000 in Australia ...yet. That is because there is no Lutec 1000 available for public purchase...yet. The EPA (Queensland) has contacted us pointing out some discrepancies on our website in this regard. We will correct any mistakes in the text and apologise for any inconvenience this may have caused. Following a visit to us over a year ago by two senior Qld EPA officers, we received correspondence wherein they stated that IF we are able to satisfy certain requirements, (we have no doubt we can comply) it would follow that rebates of fifty percent of the purchase price of a LUTEC 1000 unit would be made available. We will see if they are as good as their word when the time comes. John and Lou.

(LOOK MORE INFO AT LUTEC WEB SITE <http://www.lutec.com.au/updates.htm>)