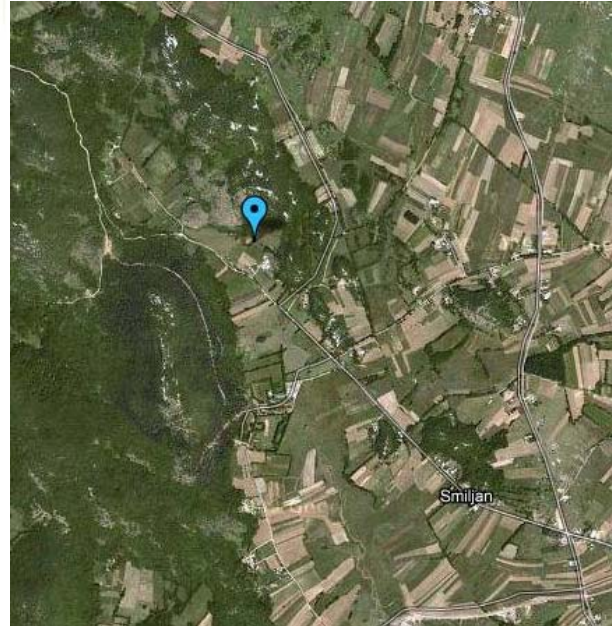
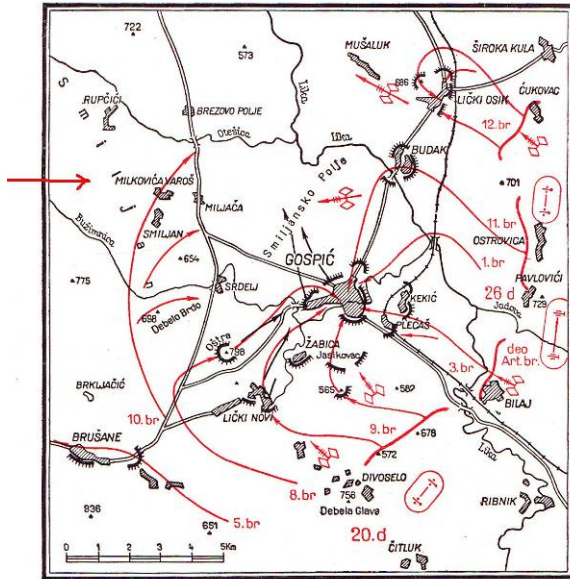


THIS WORK IS DEDICATED TO THE GENIUS OF SCIENCE AND TECHNICS,  
 NIKOLA TESLA (SMILJAN, NEARBY GOSPIĆ 1856 – NEW YORK 1943)  
 AND TO MY OWN ANCESTORS FROM NEIGHBORHOOD.  
 SMILJAN AND MILKOVIC TOWN ARE ON THE DISTANCE OF ABOUT 400 METERS.



BOJ ZA GOSPIĆ, 4 april 1945

(MAP AND SATELLITE IMAGE)

Map: Military encyclopedia, volume III, Belgrade, 1960:394

*We are whirling through endless space with inconceivable speed, all around us everything is spinning, everything is moving, **EVERYWHERE IS ENERGY**. There must be some way of availing ourselves of this energy more directly. Then, with the light obtained from the medium, with the power derived from it, with every form of energy obtained without effort, from the store forever inexhaustible, humanity will advance with giant strides.*

(Nikola Tesla, May 20, 1891, Columbia University, USA)

Mechanical analogy with alternating current

# ENERGETIC PARADOX

ALTERNATE MOVEMENT MORE EFFICIENT THAN ONE WAY ROTATIONS

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February 15, 2012, Novi Sad, Serbia

Huge mechanical energy is wasting, because of wide acceptance of rotational constructions as the best solution (flywheels, rotors, mechanical reduction gears etc.).



Figure 1. Iron disk – flywheel with a ball bearing

Disk rotation in one way acts almost perfect, air resistance is minimal and the balls in bearing are also rotating only in one way. Rotation due to inertia lasted around 1 minute.



<http://youtu.be/6ZfamxrlQgU>



<http://youtu.be/NW7wKg6OSFg>



<http://youtu.be/q4Tc1U1Tg34>

Figure 2. Video demonstrations from internet: various wheels of rollers, motorcycles, bicycles... with steel and ceramic bearings – rotation lasted from 6 seconds till 8 minutes.



Figure 3. Experiments with small carts were performed, and due inertia they kept moving 6 - 9 seconds.

## Energetic superiority of the pendulum with similar masses

With smaller energetic investment, the pendulum keeps maintaining its motion manifold longer in comparison with above mentioned wheels. Every second the pendulum changes its direction and also moves air. Besides that, steel balls in bearing change direction of its rotation every second. Without a test, the impression would be made that alternating movement would be much less efficient than one way rotation and translational movement. However, just the opposite happens and it can be called *Energetic paradox* or interaction of gravitation and inertia.

Pendulums with steel ball bearings (old ones) and weights of 0.4-12 kg maintained oscillations which lasted from 20 minutes till 2 hours and 10 min.



Figure 4.

Better results can be expected with the usage of ceramics bearings due to smaller friction and smaller inertia of ceramic balls, which change direction of rotation every second; model in picture has length of pendulum around 40cm.

## Pendulums with steel tapes and flat wires

Low price, insensitivity on dust and other dirt as well as oscillation duration of 2 till 9 hours certainly represents good side of the usage of steel tapes and flat wires.

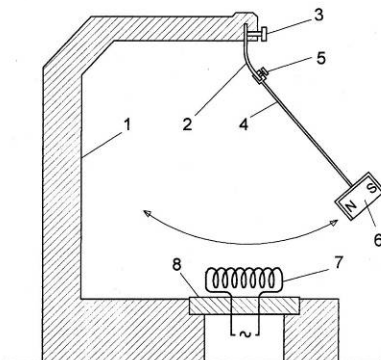


Figure 5. One of possible applications:

*“Electro dynamo with elastic pendulum handle”*

patent # MP-33/01, date of patent application March 20, 2001,

inventor Veljko Milkovic.

Energy of water waves can be one of possible ways for maintenance of oscillations of the pendulum and generation of electric energy for ships...

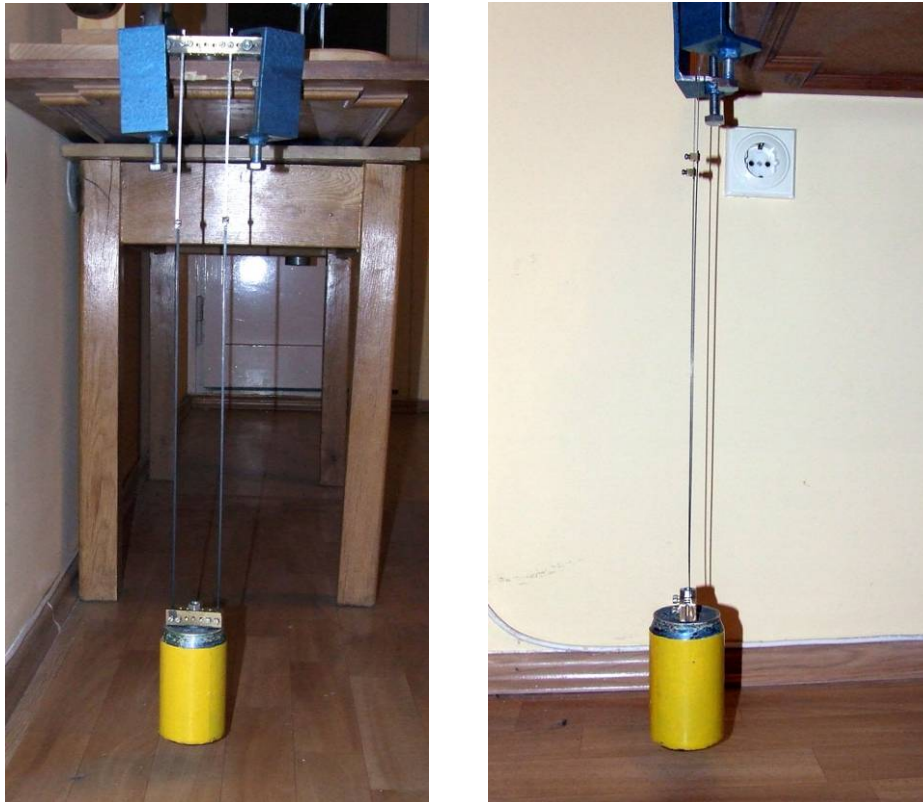


Figure 6. New model with movable pivot point.

*It is being improving – know how.*

In Novi Sad, Serbia, February 15, 2012

academician Veljko Milkovic

[www.veljkomilkovic.com](http://www.veljkomilkovic.com)

[www.pendulum-lever.com](http://www.pendulum-lever.com)