My theory

Permanent magnet can work if used against an electromagnet, because:

orientation of polarity of electromagnet can be changed

and

permanent magnet also provides matching attraction and repulsion forces accordingly.

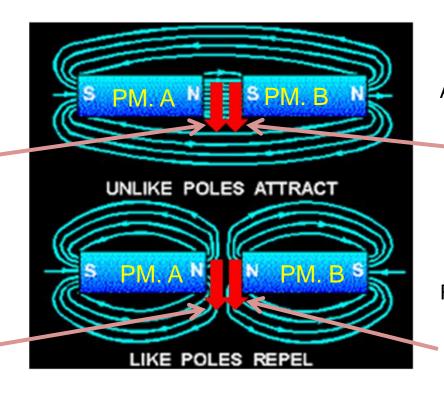
However a penative factor needs to be eliminated.

However a negative factor needs to be eliminated

A complete cycle of attraction and repulsion is needed to do work. When two permanent magnets interact each other, four forces are produced during a full cycle.

Attraction force of permanent magnet A .

Repulsion force of permanent magnet A.



Attraction force of permanent magnet B.

Repulsion force of permanent magnet B.

All the four forces act in the same direction with their full magnitude. We get sum of all the four forces as net force.

The net force will appear as out put mechanical power. Both of the permanent magnets build the output equally.

A Permanent magnet can work together with an electromagnet; like two permanent magnets work together.

But the devil awakens when like polesrepresent of a partially magnetized electromagnet and a permanent magnet repel each other.

Because permanent magnet always attracts unsaturated part of an partially magnetized electromagnet; opposite forces are produced in this situation.

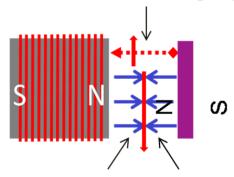
Repulsion force is wasted in this situation.

Though attraction force remains the same, sum of net force available for a "full cycle of attraction and repulsion" is reduced severely.

Output of this cycle is damaged ultimately.

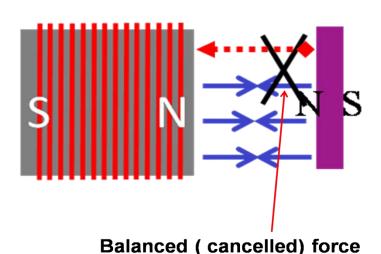
Attraction force of PM during repulsion

Plain red arrows directions of force



Repulsion force of EM

Repulsion force of PM



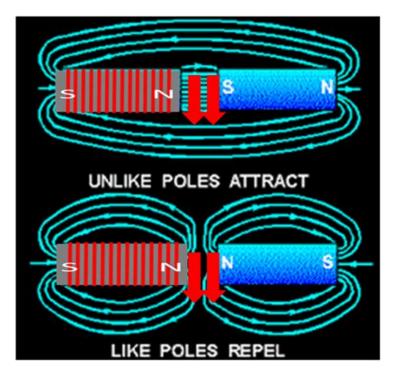
As we have read, when like poles of a partially magnetized electromagnet and a permanent magnet repel each other, opposite forces are produced:

"Degree of the magnetization of a partially magnetized electromagnet" and "production of opposite forces" are inversely proportional.

When degree of the magnetization decreases, opposite forces increase.

- •When a permanent magnet and *an saturated electromagnet* will interact each other:
- •Permanent magnet will find no unsaturated part of the electromagnet to attract. No opposing forces will be produced.
- •Both permanent magnet and electromagnet will produce all the four full forces of attraction and repulsion with full magnitude, like A and B permanent magnets.

In this configuration all the four forces act in the same direction, like those of A and B permanent magnets.



We get sum of all the four forces as net force, like we get the sum from A and B permanent magnets.

We will get the net force as mechanical out put power. According to the laws of motion, the output power must be double than produced by the saturated permanent magnet alone. Half of the output will come from the permanent magnet.