

PATENT COOPERATION TREATY

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INTERNATIONAL SEARCHING AUTHORITY

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WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/TR2007/000062

International filing date (day/month/year)
03.07.2007

Priority date (day/month/year)
22.02.2007

International Patent Classification (IPC) or both national classification and IPC
INV. H02M11/00 H02N11/00

Applicant
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1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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see form
PCT/ISA/210

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in electronic form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of

☐ the entire international application

☒ claims Nos. 12-13

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international search (*specify*):

☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 12-13 are so unclear that no meaningful opinion could be formed (*specify*):

see separate sheet

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed (*specify*):

☐ no international search report has been established for the whole application or for said claims Nos.

☐ a meaningful opinion could not be formed without the sequence listing; the applicant did not, within the prescribed time limit:

☐ furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.

☐ furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.

☐ pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rules 13ter.1(a) or (b).

☐ a meaningful opinion could not be formed without the tables related to the sequence listings; the applicant did not, within the prescribed time limit, furnish such tables in electronic form complying with the technical requirements provided for in Annex C-bis of the Administrative Instructions, and such tables were not available to the International Searching Authority in a form and manner acceptable to it.

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in electronic form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.

☐ See Supplemental Box for further details

**WRITTEN OPINION OF THE
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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>1-11</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-11</u>
Industrial applicability (IA)	Yes: Claims	<u>1-11</u>
	No: Claims	<u>12-13</u>

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

1) Reference is made to following documents:

- D1: EP-A2-0 758 159 (NIPPON ELECTRIC CO [JP]) 12 February 1997 (1997-02-12)
- D2: GEORGAKIS D ET AL: "Operation of a prototype Microgrid system based on micro-sources equipped with fast-acting power electronics interfaces" POWER ELECTRONICS SPECIALISTS CONFERENCE, 2004. PESC 04. 2004 IEEE 35TH ANNUAL AACHEN, GERMANY 20-25 JUNE 2004, PISCATAWAY, NJ, USA, IEEE, US, 20 June 2004 (2004-06-20), pages 3521-3526, XP010739478 ISBN: 0-7803-8399-0
- D3: US 2003/038612 A1 (KUTKUT NASSER H [US]) 27 February 2003 (2003-02-27)
- D4: ANGRIST S W: "PERPETUAL MOTION MACHINES" SCIENTIFIC AMERICAN, SCIENTIFIC AMERICAN INC., NEW YORK, NY, US, vol. 218, no. 1, January 1968 (1968-01), pages 114-122, XP002036811 ISSN: 0036-8733
- D5: BEDINI J C ED - INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS: "THE BEDINI FREE ENERGY GENERATOR" PROCEEDINGS OF THE INTERSOCIETY ENERGY CONVERSION ENGINEERING CONFERENCE (IECEC). BOSTON, AUG. 4 - 9, 1991, NEW YORK, IEEE, US, vol. VOL. 4 CONF. 26, 4 August 1991 (1991-08-04), pages 451-456, XP000312844 ISBN: 0-89448-163-0

Re Item VIII

Reasoned statement with regard to clarity (Art. 5, 6 PCT)

- 2) The application does not meet the requirements of Articles 5, 6 and Rule 11.13(m), PCT, because claims 1, 3, 6, 8, 12-13 are not clear.
- 2.1) The application documents are not sufficiently clear and complete, as required by Articles 5 and 6 and Rules 6 and 11.13(m), PCT, to enable a skilled person to carry out the invention.
- Following expressions of claim 1 are obscure or incomprehensible, such that they leave the reader in doubt as to the meaning of technical features to which they refer:

- The expression "starting to operate with the initial energy received from the power supply (1, 2, 2a), transferring the electro-magnetic field occurred at the first bobbin to the second bobbin, rhythmically stabilizing the (electro-) magnetic field occurred between the bobbins with help of the current amplifier (9), afterwards increasing the initial energy via the second bobbin, generating ready to use electric energy" makes claim 1 unclear, it is unclear if a device or a method (containing a starting step and a second step starting with "afterwards") is tried to define contrary to Rule 6, PCT; Moreover, it is unclear (Art. 6, PCT) how an electromagnetic field can occur "at" a bobbin/coil and at the same time "between" two bobbins/coils; further, it is unclear (Art. 6, PCT) what the applicant tries to define by "rhythmically" stabilizing, it seems that the applicant wanted to define a known kind of oscillating circuit; next, it is unclear (Art. 6, PCT) which additional features "ready to use" electric energy has compared to (ordinary) electric energy.
- "Main board (4)" is not defined in claim 1 and could therefore include any wiring on a board (Art. 6, PCT); it seems that the applicant wanted to define a frequency generator (cf. page 3, line 24);
- "Bobbin" is dubious expression, because a "bobbin" is usually defined as coil former, made out of plastic material and serving as support for a coil; it seems that the applicant wanted to define by "first (7) and second (8) bobbins" the primary coil (7) and secondary coil (8) of a power transformer;
- The box (9) in figure 1 is defined in two ways: in line 5 it is called a "frequency stabilizer" and in line 12 a "current amplifier (box)", thereby leading to an unclear function of said box (9) in the electric circuit (Rule 11.13(m) PCT);
- The function of cables (14,15) is unclear; it seems that the application is describing a classic electricity transforming circuit whereby the circuit should work as a perpetuum mobile (Article 5, PCT), wherein more electric energy is generated by/in the circuit than provided by the (initial) power supply and a feed back loop of electric energy is done via cables (14, 15); Wherein a skilled person does not know where and how such additional electric energy could be generated.

- 2.2) Claim 3 is defining that the main board (4) should transfer "energy occurred within itself" to the capacitor. It is highly unclear, how said main board works and how electric energy is generated/occurred. The intended limitations are therefore not clear, contrary to the requirements of Article 6, PCT.
It is clear from the description that box (4) should work as a (high) frequency generator; a frequency generator is generally known as a circuit creating an alternating current (AC) from a direct one (DC).
- 2.3) In claim 6, the expression "the first bobbin to transfer electric received from first filter through the field occurred within inside to second bobbin" is unclear and leaves the reader in doubt as to the meaning of the technical features to which it refers, thereby rendering the definition of the subject-matter of claim 6 unclear, Article 6, PCT.
It seems that the applicant wanted to define that the electric energy is transferred from the primary coil (7) to the secondary coil (8) of the transformer in the known way.
- 2.4) Next, claim 8 defines a current amplifier (9) which is able to "increase the energy received from the secondary coil (8)". This is contrary to the knowledge of a skilled person and therefore contrary to Article 5, PCT.
It seems that the applicant wanted to define that box (9) is a current amplifier (9) amplifying/increasing the current.
- 2.5) Claims 12-13 defining a device which is working as a perpetuum mobile (cf. D4-D5).
A skilled person knows that such devices cannot work, therefore this claims are contrary to Art. 5, PCT.
A perpetuum mobile would produce eternally electricity and therefore create excessive energy, thereby creating excessive currents and overheating some parts of the circuit, which would lead to a destruction the circuit.

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability

- 3) Furthermore, the above-mentioned lack of clarity notwithstanding, the subject-matter of claim 1 does not involve an inventive step in the sense of Article 33(3) PCT, and therefore the criteria of Article 33(1) PCT are not met.

Document D1 discloses (the references in parentheses applying to this document): A "economical" energy transformer, "starting" to operate with "initial" electric energy received from an "independent" power supply (21), transferring an electro-magnetic field "occurred" at the primary coil (25, 51) to a secondary coil (25,51), "rhythmically" stabilizing the (electro-)magnetic field occurred between the coils (25, 51) with help of a current amplifier, "afterwards" increasing the "initial" energy via the secondary coil (25,51), the device is composed out of:

- a power supply;
- a power switch, capacitor (35, 73), "main board"/high frequency generator (23), first filter (29), primary coil (25,51);
- a secondary coil (25, 51), load conditioning devices (43-47), a ground connection and a load (27).

The subject-matter of claim 1 therefore differs from this known energy converting device in that a feed back loop (cables 14,15) is added and a certain conditioning of the electricity on the secondary side (defined under third part) is made by a current amplifier, a filter, a frequency adjuster and a phase adjuster.

The feed back loop is leading to a perpetuum mobile (cf. para.2.1 and 2.5), which is not solving a technical problem.

The technical problem to be solved by the present invention may therefore be regarded as how to condition the secondary side of a transformer with regard to the load.

The solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT), because it is a normal design option that a skilled person would use when requested to assure a certain power quality for sensitive loads (cf. standardisation requirements of the CENELC). The solution given defines only standard elements of conditioning this secondary transformer side.

**WRITTEN OPINION OF THE
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AUTHORITY (SEPARATE SHEET)**

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DEPENDENT CLAIMS

- 4) In as far as the claims can be understood, dependent claims 2-11 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, see documents D1-D3 and the corresponding passages cited in the search report.