

| |
|--------------------------------------|
| PATENT ASSIGNMENT COVER SHEET |
|--------------------------------------|

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5379661

| | |
|---|--------------------------|
| SUBMISSION TYPE: | NEW ASSIGNMENT |
| NATURE OF CONVEYANCE: | ASSIGNMENT |
| CONVEYING PARTY DATA | |
| Name | Execution Date |
| ERAN COHEN | 10/17/2018 |
| ERAN SAMUNI | 10/17/2018 |
| ALEXANDER ZAK | 10/17/2018 |
| RECEIVING PARTY DATA | |
| Name: | GRID4C |
| Street Address: | 4 DERECH HASHALOM AV. |
| City: | TEL AVIV |
| State/Country: | ISRAEL |
| Postal Code: | 6789204 |
| PROPERTY NUMBERS Total: 1 | |
| Property Type | Number |
| Application Number: | 16093399 |
| CORRESPONDENCE DATA | |
| Fax Number: | (202)737-3528 |
| <i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i> | |
| Phone: | 2026285197202 |
| Email: | ering@browdyneimark.com |
| Correspondent Name: | BROWDY AND NEIMARK, PLLC |
| Address Line 1: | 1625 K STREET, N,W. |
| Address Line 2: | SUITE 1100 |
| Address Line 4: | WASHINGTON, D.C. 20006 |
| ATTORNEY DOCKET NUMBER: | COHEN91A |
| NAME OF SUBMITTER: | ERIN D. GERAGHTY |
| SIGNATURE: | /Erin D. Geraghty/ |
| DATE SIGNED: | 02/17/2019 |
| This document serves as an Oath/Declaration (37 CFR 1.63). | |
| Total Attachments: 6 | |
| source=2019-02-17DECLARATIONANDASSIGNMENT-COHEN91A#page1.tif | |
| source=2019-02-17DECLARATIONANDASSIGNMENT-COHEN91A#page2.tif | |

source=2019-02-17DECLARATIONANDASSIGNMENT-COHEN91A#page3.tif

source=2019-02-17DECLARATIONANDASSIGNMENT-COHEN91A#page4.tif

source=2019-02-17DECLARATIONANDASSIGNMENT-COHEN91A#page5.tif

source=2019-02-17DECLARATIONANDASSIGNMENT-COHEN91A#page6.tif

**DECLARATION AND ASSIGNMENT
FOR PATENT AND DESIGN APPLICATIONS
UNITED STATES PATENT RIGHTS, OR
UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS**

Title of Invention **A METHOD AND SYSTEM FOR HVAC MALFUNCTION AND INEFFICIENCY DETECTION
OVER SMART METERS DATA**

DECLARATION

As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:

This declaration is directed to the application attached hereto. If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:

United States Application Number or PCT International Appla. No. **16/093,399**
filed on **12-OCT-2018**

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

The undersigned hereby acknowledges that all statements made of the declarant's own knowledge are true and that all statements made on information and belief are believed to be true.

The undersigned hereby acknowledges that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both, and may jeopardize the validity of the application or any patent issuing thereon.

ASSIGNMENT

WHEREAS, the undersigned has invented certain new and useful improvements described in the application identified herein.

WHEREAS, **GRID4C**

of **4 Derech Hashalom Av., Tel Aviv 6789204, Israel.**

and (if more than one Assignee)

of

(hereinafter designated as Assignee(s))

is/are desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America

and in any foreign countries. (Check if applicable)

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee(s) the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and

possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee(s) may deem necessary or expedient.

The undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning this application or any continuation, divisional, conversion or reissue thereof, or any Letters Patent(s) or reissue patent issued thereon and to cooperate with the Assignee(s) in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee(s) as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorizes and requests the Patent and Trademark Office officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, conversion or reissue applications thereof to the said Assignee(s), as Assignee(s) of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

For the purpose of this assignment, the undersigned hereby authorizes and requests the firm of Browdy and Neimark, PLLC, to insert here, in parentheses, the filing date and application number of said application when known: ().

The undersigned further authorizes and requests the firm of Browdy and Neimark, PLLC, to make corrections of typographical or clerical errors in the name and/or address of the Assignee(s) or to update or otherwise correct the address of the Assignee(s).

The undersigned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

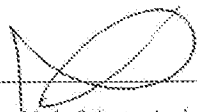
In witness whereof, executed by the undersigned on the date opposite the undersigned name.

LEGAL NAME OF INVENTOR

Inventor: Eran COHEN

Date: October 17, 2018

Signature: _____



Note to inventors: Please do not use any kind of electronic signature. You have an obligation to review and understand the contents of the above-identified application, including the claims, prior to signing this Declaration. Additionally please be aware that you have a continuing duty to disclose information that is material to patentability as defined in Title 37, Code of Federal Regulations §1.56. Please advise us of any such information.

An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use a separate form for each inventor.

**BROWDY AND NEIMARK, PLLC
1625 K STREET, N.W.
SUITE 1100
WASHINGTON, DC 20006**

**DECLARATION AND ASSIGNMENT
FOR PATENT AND DESIGN APPLICATIONS
UNITED STATES PATENT RIGHTS, OR
UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS**

Title of Invention **A METHOD AND SYSTEM FOR HVAC MALFUNCTION AND INEFFICIENCY DETECTION
OVER SMART METERS DATA**

DECLARATION

As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:

This declaration is directed to the application attached hereto. If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:

United States Application Number or PCT International Appia. No. **16/093,399**
filed on **12-OCT-2018**

The above identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

The undersigned hereby acknowledges that all statements made of the declarant's own knowledge are true and that all statements made on information and belief are believed to be true.

The undersigned hereby acknowledges that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both, and may jeopardize the validity of the application or any patent issuing thereon.

ASSIGNMENT

WHEREAS, the undersigned has invented certain new and useful improvements described in the application identified herein.

WHEREAS, **GRID4C**

of **4 Derech Hashalom Av., Tel Aviv 6789204, Israel.**

and (if more than one Assignee)

of

(hereinafter designated as Assignee(s))

is/are desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America

and in any foreign countries. (Check if applicable)

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee(s) the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and

possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee(s) may deem necessary or expedient.

The undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning this application or any continuation, divisional, conversion or reissue thereof, or any Letters Patent(s) or reissue patent issued thereon and to cooperate with the Assignee(s) in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee(s) as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorizes and requests the Patent and Trademark Office officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, conversion or reissue applications thereof to the said Assignee(s), as Assignee(s) of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

For the purpose of this assignment, the undersigned hereby authorizes and requests the firm of Browdy and Neimark, PLLC, to insert here, in parentheses, the filing date and application number of said application when known: ().

The undersigned further authorizes and requests the firm of Browdy and Neimark, PLLC, to make corrections of typographical or clerical errors in the name and/or address of the Assignee(s) or to update or otherwise correct the address of the Assignee(s).

The undersigned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

LEGAL NAME OF INVENTOR

Inventor: **Eran SAMUNI**

Date: **October 17, 2018**

Signature: _____

Note to inventors: Please do not use any kind of electronic signature. You have an obligation to review and understand the contents of the above-identified application, including the claims, prior to signing this Declaration. Additionally please be aware that you have a continuing duty to disclose information that is material to patentability as defined to Title 37, Code of Federal Regulations §1.56. Please advise us of any such information.

An application data sheet (PDS/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use a separate form for each inventor.

BROWDY AND NEIMARK, PLLC
1625 K STREET, N.W.
SUITE 1100
WASHINGTON, DC 20006

**DECLARATION AND ASSIGNMENT
FOR PATENT AND DESIGN APPLICATIONS
UNITED STATES PATENT RIGHTS, OR
UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS**

Title of Invention **A METHOD AND SYSTEM FOR HVAC MALFUNCTION AND INEFFICIENCY DETECTION
OVER SMART METERS DATA**

DECLARATION

As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:

This declaration is directed to the application attached hereto. If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:

United States Application Number or PCT International Appln. No. **16/093,399**
filed on **12-OCT-2018**

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

The undersigned hereby acknowledges that all statements made of the declarant's own knowledge are true and that all statements made on information and belief are believed to be true.

The undersigned hereby acknowledges that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both, and may jeopardize the validity of the application or any patent issuing thereon.

ASSIGNMENT

WHEREAS, the undersigned has invented certain new and useful improvements described in the application identified herein.

WHEREAS, **GRID4C**

of **4 Derech Hashalom Av., Tel Aviv 6789204, Israel.**

and (if more than one Assignee)

of

(hereinafter designated as Assignee(s))

is/are desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America

and in any foreign countries. (Check if applicable)

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee(s) the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and

possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee(s) may deem necessary or expedient.

The undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning this application or any continuation, divisional, conversion or reissue thereof, or any Letters Patent(s) or reissue patent issued thereon and to cooperate with the Assignee(s) in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee(s) as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorizes and requests the Patent and Trademark Office officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, conversion or reissue applications thereof to the said Assignee(s), as Assignee(s) of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

For the purpose of this assignment, the undersigned hereby authorizes and requests the firm of Browdy and Neimark, PLLC, to insert here, in parentheses, the filing date and application number of said application when known: ().

The undersigned further authorizes and requests the firm of Browdy and Neimark, PLLC, to make corrections of typographical or clerical errors in the name and/or address of the Assignee(s) or to update or otherwise correct the address of the Assignee(s).

The undersigned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

LEGAL NAME OF INVENTOR

Inventor: Alexander ZAK

Date: October 17, 2018

Signature: _____

Note to inventors: Please do not use any kind of electronic signature. You have an obligation to review and understand the contents of the above-identified application, including the claims, prior to signing this Declaration. Additionally please be aware that you have a continuing duty to disclose information that is material to patentability as defined in Title 37, Code of Federal Regulations §1.56. Please advise us of any such information.

An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use a separate form for each inventor.

BROWDY AND NEIMARK, PLLC
1625 K STREET, N.W.
SUITE 1100
WASHINGTON, DC 20006