

Recordation Form Cover Sheet **PATENTS ONLY**

Attorney's Docket No. 1004501-001009

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

CORRECTIVE

1. Name of conveying party(ies):

Petr KORBA
Rudolf WIESER
Srinivas PONNALURI
Mats LARSSON
Alexandre OUDALOV
Jose TABORDA
Peter STEIMER

2. Name and address of receiving party(ies):

ABB RESEARCH LTD
Affolternstrasse 44
Zürich, Switzerland CH-8050

3. Nature of Conveyance/Execution Date(s):

Execution Date(s): September 4, 2008

- | | |
|--|--|
| <input type="checkbox"/> Assignment | <input type="checkbox"/> Executive Order 9424 Confirmatory License |
| <input type="checkbox"/> Security Agreement | <input type="checkbox"/> Merger |
| <input type="checkbox"/> Joint Research Agreement | <input type="checkbox"/> Change of Name |
| <input type="checkbox"/> Government Interest Agreement | |
| <input checked="" type="checkbox"/> Other: <u>Please correct the First and Fourth Assignee's name previously recorded on November 26, 2008 at Reel/Frame 021902/0025</u> | |

4. Application or patent number(s):

A. Patent Application No.(s)
12/201,493

B. Patent No.(s)

☐ This document is being filed together with a new application.

5. Name and address to whom correspondence concerning document should be mailed:

Name: Patrick C. Keane
Address: Buchanan Ingersoll & Rooney PC
Customer Number 21839
P.O. Box 1404
Alexandria, VA 22313-1404

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40

- ☐ Authorized to be charged by credit card. PTO Form 2038 attached.
☒ Authorized to be charged to deposit account 02-4800
☐ Enclosed.
☐ None required (gov't interest not affecting title)

8.

Signature:

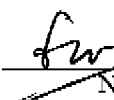

Signature

32858

Reg. No.

December 19, 2008

Date


Patrick C. Keane
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

18

USPTO

12/1/2008 8:32:20 PM PAGE 4/004 Fax Server

TO:BUCHANAN, INGERSOLL & ROONEY PC COMPANY:POST OFFICE BOX 1404

NOV-26-2008 17:46

Substitute for Form PTO-1593

11/26/2008
700392354
Recordation Form Cover Sheet
PATENTS ONLY

703 836 7419 P.01/15

Page 1 of 2

Attorney's Docket No. 1004301-001009

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies):
Petra KORBA
Rudolf WIESER
Srinivas PONNALURI
Mate LARRSON
Alexandre OUDALOV
Jose TABORDA
Peter STEDMER
2. Name and address of receiving party(ies):
ABB RESEARCH LTD
Affolternstrasse 44
Zürich, Switzerland CH-8050
3. Nature of Conveyance/Execution Date(s):
Execution Date(s): September 4, 2008

- ☒ Assignment
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Signature:


 Signature

32858

Reg. No.

November 26, 2008

Date

Patrick C. Keane
 Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

15

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
 Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1480, Alexandria, VA 22313-1480

PATENT

REEL: 022014 FRAME: 0696

ASSIGNMENT

(JOINT)

THIS ASSIGNMENT, by (1) Petr KORBA, (2) Rudolf WIESER, (3) Srinivas PONNALURI, (4) Mats LARSSON, (5) Alexandre OUDALOV, (6) Jose TABORDA and (7) Peter STEIMER, residing at (1) Turgi, Switzerland; (2) Baden-Dättwil, Switzerland; (3) Untersiggenthal, Switzerland; (4) Baden, Switzerland; (5) Fislisbach, Switzerland; (6) Kirchdorf, Switzerland and (7) Ehrendingen, Switzerland (hereinafter referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful improvements in CONVERTER CONTROL UNIT set forth in an application for Letters Patent of the United States, which is a

- (1) ☐ provisional application
 - (a) ☐ bearing Application No. _____, and filed on _____;
 - (b) ☐ to be filed herewith; or
- (2) ☒ non-provisional application
 - (a) ☒ bearing Application No. 12/201,493, and filed on August 29, 2008;
 - (b) ☐ having an oath or declaration executed on even date herewith prior to filing of application;
 - (c) ☐ having an oath or declaration executed on a different date than this Assignment; and

WHEREAS, ABB RESEARCH LTD, a corporation duly organized under and pursuant to the laws of Switzerland and having a principal place of business at Affolternstrasse 44, Zürich, Switzerland CH-8050 (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignor has sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behoof and the use and behoof of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignors had this sale and assignment not been made;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

Application No. _____
Attorney Docket No. 1004501-001009

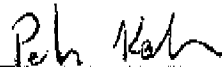
Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignors hereby authorize and request the attorneys of Buchanan Ingersoll PC (including attorneys from Burns, Doane, Swecker & Mathis) to insert in the spaces provided above the title of the invention, filing date, application number, and attorney's docket number of said application when known.

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns

DATE 04.09.2008



Petr Korba

DATE _____

Rudolf Wieser

DATE _____

Srinivas Ponnaluri

DATE _____

Mats Larsson

DATE _____

Alexandre Oudaiov

DATE _____

Jose Taborda

DATE _____

Peter Steimer

ASSIGNMENT

(JOINT)

THIS ASSIGNMENT, by (1) Petr KORBA, (2) Rudolf WIESER, (3) Srinivas PONNALURI, (4) Mats LARSSON, (5) Alexandre OUDALOV, (6) Jose TABORDA and (7) Peter STEIMER, residing at (1) Turgi, Switzerland; (2) Baden-Dättwil, Switzerland; (3) Undersiggenthal, Switzerland; (4) Baden, Switzerland; (5) Fislisbach, Switzerland; (6) Kirchdorf, Switzerland and (7) Ehrendingen, Switzerland (hereinafter referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful improvements in CONVERTER CONTROL UNIT set forth in an application for Letters Patent of the United States, which is a

- (1) ☐ provisional application
 - (a) ☐ bearing Application No. _____, and filed on _____;
 - (b) ☐ to be filed herewith; or
- (2) ☒ non-provisional application
 - (a) ☒ bearing Application No. 12/201,493, and filed on August 29, 2008;
 - (b) ☐ having an oath or declaration executed on even date herewith prior to filing of application;
 - (c) ☐ having an oath or declaration executed on a different date than this Assignment; and

WHEREAS, ABB RESEARCH LTD., a corporation duly organized under and pursuant to the laws of Switzerland and having a principal place of business at Affolternstrasse 44, Zürich, Switzerland CH-8050 (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignor has sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behoof and the use and behoof of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignors had this sale and assignment not been made;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

Application No.
Attorney Docket No. 1004501-001009

Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignors hereby authorize and request the attorneys of Buchanan Ingersoll PC (including attorneys from Burns, Doane, Swecker & Mathis) to insert in the spaces provided above the title of the invention, filing date, application number, and attorney's docket number of said application when known.

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns

DATE _____

DATE 04.09.2008

DATE _____

DATE _____

DATE _____

DATE _____

DATE _____

 _____
Petr Korba

 _____
Rudolf Wieser

Srinivas Ponnaluri

Mats Larsson

Alexandre Oudalov

Jose Taborda

Peter Steimer

ASSIGNMENT

(JOINT)

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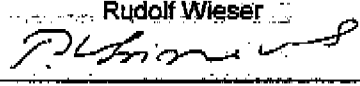
Application No. _____
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DATE _____	_____
	Petr Korba
DATE _____	_____
	Rudolf Wieser
DATE <u>04.09.2008</u>	
	Srinivas Ponnaluri
DATE _____	_____
	Mats Larsson
DATE _____	_____
	Alexandre Oudalov
DATE _____	_____
	Jose Taborda
DATE _____	_____
	Peter Steimer

ASSIGNMENT

(JOINT)

THIS ASSIGNMENT, by (1) Petr KORBA, (2) Rudolf WIESER, (3) Srinivas PONNALURI, (4) Mats LARSSON, (5) Alexandre OUDALOV, (6) Jose TABORDA and (7) Peter STEIMER, residing at (1) Turgi, Switzerland; (2) Baden-Dättwil, Switzerland; (3) Untersiggenthal, Switzerland; (4) Baden, Switzerland; (5) Fislisbach, Switzerland; (6) Kirchdorf, Switzerland and (7) Ehrendingen, Switzerland (hereinafter referred to as "the Assignors"), respectively, witnesseth:

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WHEREAS, ABB RESEARCH LTD., a corporation duly organized under and pursuant to the laws of Switzerland and having a principal place of business at Affolternstrasse 44, Zürich, Switzerland CH-8050 (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

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AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

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Mats Larsson

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Application No
Attorney Docket No 1004501-001009

Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignors hereby authorize and request the attorneys of Buchanan Ingersoll PC (including attorneys from Burns, Doane, Swecker & Mathis) to insert in the spaces provided above the title of the invention, filing date, application number, and attorney's docket number of said application when known.

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns

DATE _____	_____ Petr Korba
DATE _____	_____ Rudolf Wieser
DATE _____	_____ Srinivas Ponnaluri
DATE _____	_____ Mats Larsson
DATE <u>04.09.2008</u>	 Alexandre Oudalov
DATE _____	_____ Jose Taborda
DATE _____	_____ Peter Steimer

ASSIGNMENT

(JOINT)

THIS ASSIGNMENT, by (1) Petr KORBA, (2) Rudolf WIESER, (3) Srinivas PONNALURI, (4) Mats LARSSON, (5) Alexandre OUDALOV, (6) Jose TABORDA and (7) Peter STEIMER, residing at (1) Turgi, Switzerland; (2) Baden-Dättwil, Switzerland; (3) Untersiggenthal, Switzerland; (4) Baden, Switzerland; (5) Fislisbach, Switzerland; (6) Kirchdorf, Switzerland and (7) Ehrendingen, Switzerland (hereinafter referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful improvements in CONVERTER CONTROL UNIT set forth in an application for Letters Patent of the United States, which is a

- (1) ☐ provisional application
 - (a) ☐ bearing Application No. _____, and filed on _____;
 - (b) ☐ to be filed herewith; or
- (2) ☒ non-provisional application
 - (a) ☒ bearing Application No. 12/201,493, and filed on August 29, 2008;
 - (b) ☐ having an oath or declaration executed on even date herewith prior to filing of application;
 - (c) ☐ having an oath or declaration executed on a different date than this Assignment; and

WHEREAS, ABB RESEARCH LTD, a corporation duly organized under and pursuant to the laws of Switzerland and having a principal place of business at Affolternstrasse 44, Zürich, Switzerland CH-8050 (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignor has sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behoof and the use and behoof of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignors had this sale and assignment not been made;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

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Attorney Docket No 1004501-001009

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AND the Assignors hereby authorize and request the attorneys of Buchanan Ingersoll PC (including attorneys from Burns, Doane, Swecker & Mathis) to insert in the spaces provided above the title of the invention, filing date, application number, and attorney's docket number of said application when known

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns.

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Mats Larsson

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Alexandre Oudalov

DATE 04.09.2008

Jose Taborda

DATE _____

Peter Steimer

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- (1) ☐ provisional application
 - (a) ☐ bearing Application No. _____, and filed on _____;
 - (b) ☐ to be filed herewith; or
- (2) ☒ non-provisional application
 - (a) ☒ bearing Application No. 12/201,493, and filed on August 29, 2008;
 - (b) ☐ having an oath or declaration executed on even date herewith prior to filing of application;
 - (c) ☐ having an oath or declaration executed on a different date than this Assignment; and

WHEREAS, ABB RESEARCH LTD, a corporation duly organized under and pursuant to the laws of Switzerland and having a principal place of business at Affolternstrasse 44, Zurich, Switzerland CH-8050 (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignor has sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behoof and the use and behoof of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignors had this sale and assignment not been made;

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