



Recordation Form Cover Sheet PATENTS ONLY

07-14-2010

Attorney's Docket No. 1034193-000199

To the Director of the U.S. Patent & Trademark Office

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1. Name of conveying party(ies):

Fan DAI

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

ABB AG
Kallstadter Str. 1
68309 Mannheim, Germany

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

Execution Date(s): July 9, 2010

- Assignment
- Security Agreement
- Joint Research Agreement
- Government Interest Agreement
- Other:
- Executive Order 9424 Confirmatory License
- Merger
- Change of Name

4. Application or patent number(s):

A. Patent Application No.(s) 12/815,919

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 2 1 8 3 9
 P.O. Box 1404
 Alexandria, Virginia 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:

Patrick C. Keane
Signature

32858
Reg. No.

July 9, 2010
Date

Patrick C. Keane
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 3

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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 1450, Alexandria, VA 22313-1450

PATENT REEL: 024680 FRAME: 0941

ASSIGNMENT

(SOLE)

THIS ASSIGNMENT, by Fan Dai, residing at Zwingenberg, Germany (hereinafter referred to as "the Assignor"), respectively, witnesseth:

WHEREAS, the Assignor has invented certain new and useful improvements in DETERMINING THE POSITION OF AN OBJECT 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. 12/815,919, and filed on 06/15/10;
- (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 AG, a corporation duly organized under and pursuant to the laws of GERMANY and having a principal place of business at Kallstadter Str. 1, 68309 Mannheim, Germany (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 does 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 Assignor had this sale and assignment not been made;

AND for the same consideration, the Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignor is the sole and lawful owner 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 Assignor has 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 Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns that the Assignor 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 Assignor hereby authorizes and requests the attorneys of Buchanan Ingersoll & Rooney PC 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 Assignor hereby requests the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said invention, the Letters Patent to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns.

DATE 2.7.2010



FAN DAI