FORM PTO-1595 1-31-92 ABRE-0531/B95032
To The Honorable C thereof.

RECORDATION FO PATENT

02-01-1999



1ENT OF COMMERCE and Trademark Office

Commissioner of Patents and Trademarks documents or copy 100953333 1. Name of conveying party(ies): 2. Name and address of receiving party(ies): Name: ABB POWER T&D COMPANY INC. [1] BERNHARD BACHMANN Internal Address: 1021 MAIN CAMPUS DRIVE [2] DAMIR NOVOSEL RALEIGH, NORTH CAROLINA 27606 [3] DAVID G. HART [4] YI HU Additional name(s) of conveying party(ies) attached? () YES (X) NO Street Address: SAME AS ABOVE 3. Nature of Conveyance: (X) Assignment () Merger () Security Agreement City 1-29-99 () Change of Name () Other: State ZIP Execution Date: [1] 1/4/99 [2] 12/15/98 Additional name(s) & address attached? ()YES (X)NO **[3]** 12/15/98 **[4]** 12/15/98 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) 09/192,851 B. Patent No.(s) 04/01/1999 SBURNS 00000005 09192851 40.00 OP FC:581 Additional numbers attached? () YES (X) NO 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved: 1 concerning documents should be mailed: Name: ANTHONY J. ROSSI 7. Total fee (37 CFR 3.41):.....\$40.00 Internal Address: WOODCOCK WASHBURN KURTZ (X) Enclosed MACKIEWICZ & NORRIS LLP () Authorized to be charged to Deposit Account One Liberty Place - 46th Floor Number 23-3050 Philadelphia, Pennsylvania 19103-7301 Street Address: WOODCOCK WASHBURN KURTZ 8. Please charge any deficiency or credit any MACKIEWICZ & NORRIS LLP overpayment to Deposit Account Number 23-3050 One Liberty Place - 46th Floor 1650 Market Street Philadelphia, Pennsylvania 19103-7301

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O.	Statement	and	cianatura
м.	Statement	and	signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Anthony J. Rossi/24,053

Name of Person Signing/Reg. No.

1-22-99

Date

Total number of pages including cover sheet, attachments, and document: 5

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks **Box Assignments** Washington, D.C. 20231

> **PATENT REEL: 9718 FRAME: 0524**

(Pending Application; Serial No. Unknown)

DOCKET NO.: ABRE-0531/B950320

ASSIGNMENT

WHEREAS, we BERNHARD BACHMANN, DAMIR NOVOSEL, DAVID G. HART, and YI HU, hereinafter referred to as the assignors, residing respectively at Gurtweilerstrasse 10, D-79761 Waldshut-Tiengen, Germany; 107 East Skyhawk Drive, Cary, North Carolina 27513; 2804 Isabella Drive, Raleigh, North Carolina 27603; 300 Fairfax Lane, Cary, North Carolina 27513 are the joint inventors of certain inventions or improvements for which we have made application for Letters Patent to the United States, identified as Case No. ABRE-0531/B950320, entitled IMPEDANCE MEASUREMENT SYSTEM FOR POWER SYSTEM TRANSMISSION LINES; and

WHEREAS, ABB Power T&D Company Inc. hereinafter referred to as the assignee, of 1021 Main Campus Drive, Raleigh, North Carolina 27606, a corporation of Delaware, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in consideration of my employment by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said assignors, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said application and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in our names applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisional, continuing, reissue and

PATENT REEL: 9718 FRAME: 0525 foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

We further authorize and direct our attorneys to insert below* the serial number and filing date of said application now identified as Case No. **ABRE-0531/B950320** as soon as the same shall have been made known to them by the United States Patent Office.

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Signature of Witness

BERNHARD BACHMANN

Part Novort (L.S.)

DAMIR NOVOSEL

DAVID G. HART

YI HU

(L.S.)

I forth Carolina:
COUNTY OF Wake :
On this 15th day of December, 1998, before me personally came the above named Damir Novosel to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.
Notary Public
My Commission Expires: 3-22-2000
North Carolina: COUNTY OF Wake: SS
On this
Jane P. Warren Notary Public

My Commission Expires: 3-22-2000

North Carolina:
North Carolina : COUNTY OF Wake : SS
On this 15th day of December, 1998, before me personally came the above named Yi Hu to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.
Notary Public
My Controlision Expires: 3-22-2000
*The above assignment covers application Serial No. 09/192,851 filed on November 17, 19, 98.
The above insertion made by me this 22nd day of January 19 99
of WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS LLP

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RECORDED: 01/29/1999

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PATENT REEL: 9718 FRAME: 0528