

**(Pending Application;
Serial No. Unknown)**

ASSIGNMENT

WHEREAS, we **Jiuping Pan; Reynaldo Nuqui; Le Tang**, hereinafter referred to as the assignors, residing respectively at **5401 Southern Cross Avenue, Raleigh, North Carolina 27606; 1231-D Patrick Circle, Cary, North Carolina 27511; 107 Summerglow Drive, 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. **ABTT-0387/B020621**, entitled **VALUE-BASED TRANSMISSION ASSET MAINTENANCE MANAGEMENT OF ELECTRIC POWER NETWORKS**; and

WHEREAS, **ABB INC.**, hereinafter referred to as the assignee, of **Centennial Campus - NCSU, 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 our 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 foreign applications, to make all rightful oaths, and generally to do everything possible to aid said

