

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	KAI LIU	04/24/2019
<b>RECEIVING PARTY DATA</b>		
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<b>PROPERTY NUMBERS Total: 1</b>		
	<b>Property Type</b>	<b>Number</b>
	Application Number:	16440258
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<b>NAME OF SUBMITTER:</b>	AVA CHUANG	
<b>SIGNATURE:</b>	/Ava Chuang/	
<b>DATE SIGNED:</b>	06/08/2020	
<b>Total Attachments: 3</b>		
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source=PG-CN-17030US01 Assignment#page3.tif		

## COMBINED DECLARATION AND ASSIGNMENT OF PATENT RIGHTS

WHEREAS, the below-named persons (hereinafter referred to as "Assignors" or "Inventors") have made one or more new and useful inventions which are claimed, disclosed and/or described in the patent application identified in Section I. below (hereinafter collectively referred to as "the Invention");

WHEREAS, ABB Schweiz AG (hereinafter referred to as "Assignee") a legal entity organized under the laws of Switzerland, desires to acquire the entire right, title and interest in, to and under the Invention and any and all United States, foreign and international patent applications and patents which claim, disclose and/or describe the Invention; and

NOW, THEREFORE, for good, valuable and sufficient consideration to the Assignors, the receipt and sufficiency of which are hereby acknowledged, Assignors and Assignee agree as follows:

### I. DECLARATION

As one of the below-named Inventors I hereby declare that:

This declaration is directed to the application entitled METHOD, SYSTEM AND APPARATUS FOR FAULT DETECTION which:

X is attached hereto, or

\_\_\_\_\_ was filed as U.S. or PCT Application No. \_\_\_\_\_ on \_\_\_\_\_.

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.

I hereby acknowledge 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.

### II. ASSIGNMENT OF PATENT RIGHTS

#### A. Assignment of Patent Rights

Assignors hereby assign and transfer to Assignee, its successors and assigns, the entire right, title, and interest in, to and under (i) the Invention, (ii) any and all United States, foreign and international patent applications which claim, disclose or describe the Invention including, without limitation, the application identified in Section I. above, (iii) any and all continuations, continuations-in-part, divisionals, foreign counterparts, reexaminations, reissues, extensions and applications claiming the benefit of or priority to any of the foregoing, (iv) any and all rights to claim priority to any of the foregoing, and (v) any and all rights to bring an action under, receive and collect damages for infringement of any of the foregoing and/or obtain injunctive relief for infringement of any of foregoing (hereinafter collectively referred to as "the Assigned Patent Rights").

Assignors acknowledge and agree that the Assigned Patent Rights include any and all future applications not filed at the time of execution of this agreement which disclose, describe and/or claim subject matter of the Invention, or which claim priority to or the benefit of an application or patent which discloses, describes and/or claims subject matter of the Invention. With respect to such future applications, Assignors hereby authorize Assignee, its counsel, or its agents to append information identifying such applications as an Exhibit A to this document or to add information identifying such applications to Section I. above at the discretion of Assignee, its attorneys, or its agents.

#### B. Agreement to Execute Additional Documents and Provide Further Assistance

Assignors agree to execute any and all other documents necessary or desirable to document, memorialize or perfect Assignee's interest in the Assigned Patent Rights and to execute any and all other documents and to provide any further assistance necessary or desirable for the procurement of patent rights on the above referenced invention in the United States and all foreign countries.

C. Binding, Complete and Enforceable Agreement

Assignors acknowledge that (i) this is an enforceable agreement; (ii) this agreement embodies the entire and only understanding between Assignors and Assignee with respect to the subject matter of this agreement; (iii) no oral explanation or oral information by either party hereto shall alter the meaning or interpretation of this agreement; and (iv) if any provision of this agreement is held to be unlawful or unenforceable, such provision shall be limited or eliminated to the minimum extent necessary so that the remainder of this agreement will continue in full force and effect and be enforceable.

D. Execution

This agreement may be executed in counterparts or duplicate originals, both of which shall be regarded as one and the same instrument, and which shall be the official and governing version in the interpretation of this agreement. This agreement may be executed by facsimile signatures or other electronic means and such signatures shall be deemed binding as if they were original signatures.

[Signature Pages Follow]

Signed and executed this 24 day of April, 2019.

Kai Liu  
Kai Liu

Witnessed by:

Signature: Chunming Yuan

Printed Name: Chunming Yuan

Date: 2019. 4. 24

ABB SCHWEIZ AG

Signature: Yu Ding

Printed Name: Yu Ding

Date: 5/9/2019