

## PATENT ASSIGNMENT

Electronic Version v1.1  
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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Igor Dos Santos Ramos</td> <td>04/30/2012</td> </tr> <tr> <td>Andrew A. Knitt</td> <td>04/30/2012</td> </tr> <tr> <td>Wellington Ying-Wei Kwok</td> <td>04/30/2012</td> </tr> <tr> <td>Kaiyu Wang</td> <td>05/01/2012</td> </tr> </tbody> </table>		Name	Execution Date	Igor Dos Santos Ramos	04/30/2012	Andrew A. Knitt	04/30/2012	Wellington Ying-Wei Kwok	04/30/2012	Kaiyu Wang	05/01/2012
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Igor Dos Santos Ramos	04/30/2012										
Andrew A. Knitt	04/30/2012										
Wellington Ying-Wei Kwok	04/30/2012										
Kaiyu Wang	05/01/2012										
RECEIVING PARTY DATA											
Name:	Caterpillar Inc.										
Street Address:	100 N.E. Adams Street										
City:	Peoria										
State/Country:	ILLINOIS										
Postal Code:	61629-9510										
PROPERTY NUMBERS Total: 1											
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13461193</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13461193						
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Application Number:	13461193										
CORRESPONDENCE DATA											
Fax Number:	(202)408-4400										
Phone:	202-408-4000										
Email:	daniel.tucker@finnegan.com										
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>											
Correspondent Name:	CATERPILLAR/FINNEGAN, HENDERSON, L.L.P.										
Address Line 1:	901 New York Avenue, NW										
Address Line 4:	WASHINGTON, DISTRICT OF COLUMBIA 20001-4413										
ATTORNEY DOCKET NUMBER:	08350.0467-00										
NAME OF SUBMITTER:	Daniel C. Tucker										
Total Attachments: 12											

OP \$40.00 13461193

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**ASSIGNMENT**

WHEREAS We, the below named inventors, hereinafter referred to as Assignors, have made an invention entitled:

**SYSTEMS AND METHODS FOR DETECTING ULTRA CAPACITOR CELL SHORT CIRCUITS**

for which We will or have filed a patent application; and

WHEREAS, **Caterpillar Inc.**, a corporation of **Delaware** whose post office address is **Intellectual Property Department, 100 N.E. Adams Street, Peoria, Illinois 61629-9510** (hereinafter referred to as Assignee), is desirous of securing the entire right, title, and interest in and to this invention, and in and to the patent application for this invention and any and all patents to be issued upon this application, throughout the world;

NOW THEREFORE, be it known that for good and valuable consideration the receipt of which from Assignee is hereby acknowledged, We, as Assignors, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, our entire right, title, and interest in and to this invention, provisional application Serial No. \_\_\_\_\_, filed \_\_\_\_\_, and this application, and all divisions, and continuations thereof, and all patents which may be granted thereon, and all reissues thereof, as well as all rights to claim priority in any country or jurisdiction or patent office on the basis of this application, and all applications for patents which may hereafter be filed for this invention in any country or jurisdiction or patent office and all patents which may be granted on this invention in any country or jurisdiction or patent office, and all extensions, renewals, and reissues thereof; and We hereby authorize and request any official of any country or jurisdiction or patent office whose duty it is to issue patents on applications as described above, to issue all patents for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, WE HEREBY covenant that We have the full right to convey the interest assigned by this Assignment, and We have not executed and will not execute any agreement in conflict with this Assignment;

AND, WE HEREBY further covenant and agree that We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to us respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in any country or jurisdiction or patent office, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns;

AND, WE HEREBY authorize the attorneys/representatives that WE have empowered to prosecute this application to insert here in parentheses the country, application number, and official filing date ( \_\_\_\_\_ Application No. \_\_\_\_\_, filed \_\_\_\_\_ ).

IN TESTIMONY WHEREOF, We have hereunto set our hands.

1. FULL NAME OF SOLE OR FIRST ASSIGNOR <b>Igor Dos Santos Ramos</b>	ASSIGNOR'S SIGNATURE <i>Igor S. Ramos</i>	DATE <i>9/30/12</i>
ADDRESS <b>12400 Marion Lane W, Apt. 3315, Minnetonka, MN 55305</b>		CITIZENSHIP <b>U.S.A.</b>

1. WITNESS NAME <b>LATANYA TURNER</b>	WITNESS SIGNATURE <i>Latanya Turner</i>	DATE <b>4/30/12</b>
ADDRESS <b>55 MAGNOLIA AVE W</b>		CITIZENSHIP <b>US</b>
<b>ST. PAUL MN 55117</b>		

2. WITNESS NAME <b>Roman Chebykin</b>	WITNESS SIGNATURE <i>Chebykin</i>	DATE <b>4/30/12</b>
ADDRESS <b>13150 47th Ave. N Plymouth MN 55442</b>		CITIZENSHIP <b>US</b>

2. FULL NAME OF SECOND ASSIGNOR <b>Andrew A. Knitt</b>	ASSIGNOR'S SIGNATURE	DATE
ADDRESS <b>111 N. Jackson Street, Deer Creek, IL 61733</b>		CITIZENSHIP <b>U.S.A.</b>

1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

3. FULL NAME OF THIRD ASSIGNOR <b>Wellington Ying-Wei Kwok</b>	ASSIGNOR'S SIGNATURE	DATE
ADDRESS <b>11003 N. Moonstone Court, Dunlap, IL 61525</b>		CITIZENSHIP <b>U.S.A.</b>

1. WITNESS NAME	WITNESS SIGNATURE	DATE
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2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

3. FULL NAME OF FOURTH ASSIGNOR <b>Kaiyu Wang</b>	ASSIGNOR'S SIGNATURE	DATE
ADDRESS <b>125 South Street, Apt. 275, Vernon, CT 06066</b>		CITIZENSHIP <b>P.R. China</b>

1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

JOINT INVENTION  
(Worldwide Rights)  
Attorney Docket No. 08350.0467-00000  
Client Ref. No. 10-0579

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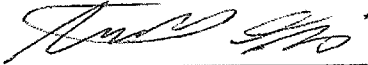
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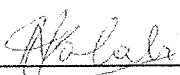
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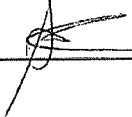
1. FULL NAME OF SOLE OR FIRST ASSIGNOR <b>Igor Dos Santos Ramos</b>	ASSIGNOR'S SIGNATURE	DATE
ADDRESS <b>12400 Marion Lane W, Apt. 3315, Minnetonka, MN 55305</b>		CITIZENSHIP <b>U.S.A.</b>

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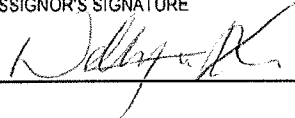
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ADDRESS		CITIZENSHIP


2. FULL NAME OF SECOND ASSIGNOR	ASSIGNOR'S SIGNATURE	DATE
<b>Andrew A. Knitt</b>		4-30-12
ADDRESS 111 N. Jackson Street, Deer Creek, IL 61733		CITIZENSHIP U.S.A.

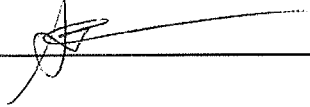
1. WITNESS NAME	WITNESS SIGNATURE	DATE
Nick Halabi		4-30-12
ADDRESS 1700 W. MARI-GOLD DR. APT 5207 PFORIA, IL 61615		CITIZENSHIP U.S.A.

2. WITNESS NAME	WITNESS SIGNATURE	DATE
Scott Kokuska		4/30/12
ADDRESS 210 Hannah Dr Coxsack Hills, IL 61518		CITIZENSHIP USA



3. FULL NAME OF THIRD ASSIGNOR <b>Wellington Ying-Wei Kwok</b>	ASSIGNOR'S SIGNATURE 	DATE 4/30/2012
ADDRESS <b>11003 N. Moonstone Court, Dunlap, IL 61525</b>		CITIZENSHIP <b>U.S.A.</b>

1. WITNESS NAME NICK HALABI	WITNESS SIGNATURE 	DATE 4-30-12
ADDRESS 1700 W MAREGOLD DR APT 5207 PEORIA IL 61615		CITIZENSHIP USA

2. WITNESS NAME Scott Kokoska	WITNESS SIGNATURE 	DATE 4/30/2012
ADDRESS 210 Hannah Dr Genantown Hills, IL 61548		CITIZENSHIP USA

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ADDRESS <b>125 South Street, Apt. 275, Vernon, CT 06066</b>		CITIZENSHIP <b>P.R. China</b>

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2. FULL NAME OF SECOND ASSIGNOR	ASSIGNOR'S SIGNATURE	DATE
<b>Andrew A. Knitt</b>		
ADDRESS <b>111 N. Jackson Street, Deer Creek, IL 61733</b>		CITIZENSHIP <b>U.S.A.</b>

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3. FULL NAME OF FOURTH ASSIGNOR <b>Kaiyu Wang</b>	ASSIGNOR'S SIGNATURE <i>Kaiyu Wang</i>	DATE <b>05/01/2012</b>
ADDRESS <b>125 South Street, Apt. 275, Vernon, CT 06066</b>		CITIZENSHIP <b>P.R. China</b>

1. WITNESS NAME <i>Lei Xing</i>	WITNESS SIGNATURE <i>Xing Lei</i>	DATE <b>05/01/2012</b>
ADDRESS <i>115 Nutmeg Ln, Apt 228, East Hartford, CT, 06118</i>		CITIZENSHIP <b>P.R. China</b>

JOINT INVENTION  
(Worldwide Rights)  
Attorney Docket No. 08350.0467-00000  
Client Ref. No. 10-0579

2. WITNESS NAME <i>Ming Li</i>	WITNESS SIGNATURE <i>Ming Li</i>	DATE <i>05/01/2012</i>
ADDRESS <i>6 Cinnamon Circle, West Hartford, CT, 06110</i>		CITIZENSHIP <i>P.R. China.</i>