

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

| 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>Jayasimha Atulasimha</td> <td>04/13/2012</td> </tr> <tr> <td>Supriyo Bandyopadhyay</td> <td>04/13/2012</td> </tr> </tbody> </table>   |                                  | Name          | Execution Date                   | Jayasimha Atulasimha | 04/13/2012            | Supriyo Bandyopadhyay | 04/13/2012 |       |          |                |          |              |       |
| Name  | Execution Date                   |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| Jayasimha Atulasimha  | 04/13/2012                       |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| Supriyo Bandyopadhyay   | 04/13/2012                       |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| RECEIVING PARTY DATA  |                                  |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| <table border="1"> <tr> <td>Name:</td> <td>Virginia Commonwealth University</td> </tr> <tr> <td>Street Address:</td> <td>800 East Leigh Street</td> </tr> <tr> <td>Internal Address:</td> <td>Suite 113</td> </tr> <tr> <td>City:</td> <td>Richmond</td> </tr> <tr> <td>State/Country:</td> <td>VIRGINIA</td> </tr> <tr> <td>Postal Code:</td> <td>23219</td> </tr> </table>  |                                  | Name:         | Virginia Commonwealth University | Street Address:      | 800 East Leigh Street | Internal Address:     | Suite 113  | City: | Richmond | State/Country: | VIRGINIA | Postal Code: | 23219 |
| Name:   | Virginia Commonwealth University |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| Street Address:   | 800 East Leigh Street            |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| Internal Address:   | Suite 113                        |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| City:   | Richmond                         |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| State/Country:  | VIRGINIA                         |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| Postal Code:  | 23219                            |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| 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>13447431</td> </tr> </tbody> </table>   |                                  | Property Type | Number                           | Application Number:  | 13447431              |                       |            |       |          |                |          |              |       |
| Property Type   | Number                           |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| Application Number:   | 13447431                         |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| CORRESPONDENCE DATA   |                                  |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| <p>Fax Number: (703)787-7557<br/>         Phone: 703-787-9400<br/>         Email: linda@wcc-ip.com</p> <p><i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: WHITHAM, CURTIS &amp; CHRISTOFFERSON &amp; COOK,<br/>         Address Line 1: 11491 SUNSET HILLS ROAD<br/>         Address Line 2: SUITE 340<br/>         Address Line 4: RESTON, VIRGINIA 20190</p> |                                  |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| ATTORNEY DOCKET NUMBER:   | 02940753AA                       |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| NAME OF SUBMITTER:  | Michael E. Whitham               |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |
| Total Attachments: 2<br>source=02940753AA_Assignment#page1.tif<br>source=02940753AA_Assignment#page2.tif  |                                  |               |                                  |                      |                       |                       |            |       |          |                |          |              |       |

CH \$40.00 13447431

### **ASSIGNMENT**

WHEREAS, we, Jayasimha Atuladlmha and Supriyo Bandyopadhyay have invented certain new and useful improvements in an invention entitled ***PLANAR MULTIFERROIC/MAGNETOSTRICTIVE NANOSTRUCTURES AS MEMORY ELEMENTS, TWO-STAGE LOGIC GATES AND FOUR-STATE LOGIC ELEMENTS FOR INFORMATION PROCESSING*** for which a United States Letters Patent Application is currently being filed; and

WHEREAS, Virginia Commonwealth University, a corporate instrumentality of the Commonwealth of Virginia, hereinafter referred to as UNIVERSITY, is desirous of acquiring certain rights there under; and

WHEREAS, the invention was made using facilities and resources controlled by the UNIVERSITY; and

WHEREAS, Virginia Commonwealth University' Intellectual Properties Policy, which applies to us as employees of Virginia Commonwealth University pursuant to Section 23-4.3.B of the CODE OF VIRGINIA, provides among other things, that inventions made using facilities and resources controlled by the UNIVERSITY become the property of the UNIVERSITY and that UNIVERSITY employees-inventors are obligated to assign their rights in the invention and any patent application(s) and any patent(s) issued thereon to the UNIVERSITY;

NOW, THEREFORE, for one dollar (\$1.00) and other good and valuable consideration, receipt of which is hereby acknowledged, we agree to and do hereby sell, assign and transfer unto said UNIVERSITY the entire right, title, and interest in and throughout the United States of American (including its possessions and dependencies) and all countries foreign thereto, in and to said invention (whether patentable or not), of any country, which have been or may be granted on said invention or any part thereof, or any divisional, substitute, continuation-in-whole- or in part, renewal, reissue or other patent application based thereon, and based upon said invention, together with the right of said UNIVERSITY to apply for such patent in its own name in all countries of the world where such is permissible by law, and the right to claim the benefit of the priority right provided by the International convention of 1883, as amended to date, and any such priority right;

TO BE HELD AND ENJOYED BY said UNIVERSITY, its successors and assigns, to the full ends of the respective terms for which said patents or any of them have been or may be granted as fully and entirely as the same would have been held and enjoyed by me had no sale and assignment of said interest been made;

AND we do hereby authorize and request the Commissioner of Patents of the United States of America to issue any and all United States Patents which may be granted upon said Invention or any part thereof, to said UNIVERSITY;


AND we hereby agree for ourselves, and for our heirs, executors and administrators, to execute without further consideration any further lawful documents and any further assurances, and any divisional, continuation-in-whole or in part, substitute, renewal, reissue, or other applications for patents for any country that might be deemed necessary by said assignee fully to secure to said assignee its interest as aforesaid in and to said invention or any part thereof, and in and to said several patents or any of them;

AND in addition we agree that any and all royalties, rents, payments or any receipts from the sale, assignment, transfer, licensing or use of said Invention, whether patented or not, which are received by the said UNIVERSITY shall be the property of the UNIVERSITY with the understanding that I will receive a percentage of said royalties, rents, payments, or receipts pursuant to and in accordance with the Virginia Commonwealth University Intellectual Properties Policy as adopted May 20, 1988, or as amended or superseded thereafter;

AND we do hereby covenant for ourselves and our legal representatives and agree with said UNIVERSITY, its successors and assigns that we have granted no right or license to make, use or sell said Invention to anyone except said UNIVERSITY, that prior to the execution of this deed my right, title and interest in said invention has not been otherwise encumbered, and that I have not executed and will not execute any instrument in conflict herewith.

IN WITNESS WHEREOF, We have hereunto set hand and seal

  
Jayasimha Atulasimha  
Date 4/13/2012

  
Supriyo Bandyopadhyay  
Date 4/13/12

\_\_\_\_\_  
Date