

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT												
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT												
<b>CONVEYING PARTY DATA</b>													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Mitsuo Takeda</td> <td>07/24/2008</td> </tr> <tr> <td>Wei Wang</td> <td>07/24/2008</td> </tr> <tr> <td>Tomoaki Yokozeki</td> <td>07/24/2008</td> </tr> <tr> <td>Reika Ishijima</td> <td>07/24/2008</td> </tr> <tr> <td>Yu Qiao</td> <td>07/24/2008</td> </tr> </tbody> </table>		Name	Execution Date	Mitsuo Takeda	07/24/2008	Wei Wang	07/24/2008	Tomoaki Yokozeki	07/24/2008	Reika Ishijima	07/24/2008	Yu Qiao	07/24/2008
Name	Execution Date												
Mitsuo Takeda	07/24/2008												
Wei Wang	07/24/2008												
Tomoaki Yokozeki	07/24/2008												
Reika Ishijima	07/24/2008												
Yu Qiao	07/24/2008												
<b>RECEIVING PARTY DATA</b>													
<b>Name:</b>	National University Corporation The University of Electro-Communications												
<b>Street Address:</b>	5-1, Chofugaoka 1-Chome, Chofu-Shi												
<b>City:</b>	Tokyo												
<b>State/Country:</b>	JAPAN												
<b>Postal Code:</b>	182-8585												
<b>PROPERTY NUMBERS Total: 1</b>													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12162370</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12162370								
Property Type	Number												
Application Number:	12162370												
<b>CORRESPONDENCE DATA</b>													
<b>Fax Number:</b>	(202)797-8188												
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
<b>Phone:</b>	202 797 4181												
<b>Email:</b>	IPUSA@IPUSAPAT.COM												
<b>Correspondent Name:</b>	IPUSA, P.L.L.C												
<b>Address Line 1:</b>	1054 31ST STREET, N.W.												
<b>Address Line 2:</b>	Suite 400												
<b>Address Line 4:</b>	Washington, DISTRICT OF COLUMBIA 20007												
<b>ATTORNEY DOCKET NUMBER:</b>	08DU-001												
<b>NAME OF SUBMITTER:</b>	Martin A. Weeks												

**CH \$40.00 12162370**

**Total Attachments: 10**

source=AssignmentRecordationCoverSheet#page1.tif  
source=AssignmentRecordationCoverSheet#page2.tif  
source=AssignmentRecordationCoverSheet#page3.tif  
source=AssignmentRecordationCoverSheet#page4.tif  
source=AssignmentRecordationCoverSheet#page5.tif  
source=AssignmentRecordationCoverSheet#page6.tif  
source=AssignmentRecordationCoverSheet#page7.tif  
source=AssignmentRecordationCoverSheet#page8.tif  
source=AssignmentRecordationCoverSheet#page9.tif  
source=AssignmentRecordationCoverSheet#page10.tif

### RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

**1. Name of conveying party(ies)**

Mitsuo TAKEDA, Wei WANG, Tomoaki YOKOZEKI,  
Reika ISHIJIMA, Yu QIAO

Additional name(s) of conveying party(ies) attached?  Yes  No

**2. Name and address of receiving party(ies)**

Name: National University Corporation The University of Electro-Communications

Internal Address: \_\_\_\_\_

Street Address: 5-1, Chofugaoka 1-Chome, Chofu-Shi,

City: Tokyo

State: \_\_\_\_\_

Country: Japan Zip: 182-8585

Additional name(s) & address(es) attached?  Yes  No

**3. Nature of conveyance/Execution Date(s):**

Execution Date(s) July 24, 2008

- Assignment  Merger
- Security Agreement  Change of Name
- Joint Research Agreement
- Government Interest Assignment
- Executive Order 9424, Confirmatory License
- Other \_\_\_\_\_

**4. Application or patent number(s):**

This document is being filed together with a new application.  
A. Patent Application No.(s) \_\_\_\_\_ B. Patent No.(s) \_\_\_\_\_

Additional numbers attached?  Yes  No

**5. Name and address to whom correspondence concerning document should be mailed:**

Name: JPUSA, PLLC

Internal Address: \_\_\_\_\_

Street Address: 1054 31st Street, N.W. Suite 400

City: Washington

State: DC Zip: 20007

Phone Number: 202-797-4181

Fax Number: 202-797-8188

Email Address: jpusa@jpusapat.com

**6. Total number of applications and patents involved: 1****7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00**

- Authorized to be charged by credit card
- Authorized to be charged to deposit account
- Enclosed
- None required (government interest not affecting title)

**8. Payment Information**

a. Credit Card Last 4 Numbers \_\_\_\_\_  
Expiration Date \_\_\_\_\_

b. Deposit Account Number 50-4424

Authorized User Name Martin A. Weeks

9. Signature: Martin A Weeks  
Signature

7/28/2008  
Date

Martin A. Weeks

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

10

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

## ASSIGNMENT

**THIS ASSIGNMENT, by (1) Mitsuo TAKEDA, (2) Wei WANG, (3) Tomoaki YOKOZEKI, (4) Reika ISHIJIMA and (5) Yu Qiao (hereinafter referred to as "Assignors"), residing at (1) Chofu-Shi, Tokyo, Japan, (2) Chofu-Shi, Tokyo, Japan, (3) Chofu-Shi, Tokyo, Japan, (4) Chofu-Shi, Tokyo, Japan and (5) Chofu-Shi, Tokyo, Japan respectively;**

WHEREAS, Assignors have invented certain new and useful improvements in

**DISPLACEMENT DETECTION METHOD, DISPLACEMENT DETECTION DEVICE, DISPLACEMENT DETECTION PROGRAM, PHASE SINGULARITY MATCHING METHOD AND PHASE SINGULARITY MATCHING PROGRAM**

set forth in a patent application for Letters Patent of the United States, executed concurrently herewith; and

WHEREAS, **National University Corporation The University of Electro-Communications (hereinafter referred to as "Assignee"), having offices at 5-1, Chofugaoka 1-Chome, Chofu-Shi, Tokyo 182-8585 Japan,** is desirous of acquiring the entire right, title and interest in and to said inventions and said application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefor and thereon;

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuation-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefor and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and Assignment not been made;

AND for the same consideration, Assignors hereby represent and warrant to Assignee, its successors legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights titles, and or interests that have arisen to Assignee under the law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives, and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns shall advise; that any proceeding in connection with said inventions, or said patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable;

AND Assignors hereby request that the Director of the United States Patent and Trademark Office to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the said Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns;

AND Assignors hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document: All practitioners associated with the Customer Number 77464.

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

July 24, 2008  
Date

  
Mitsuo TAKEDA

\_\_\_\_\_  
Date

\_\_\_\_\_  
Wei WANG

\_\_\_\_\_  
Date

\_\_\_\_\_  
Tomoaki YOKOZEKI

\_\_\_\_\_  
Date

\_\_\_\_\_  
Reika ISHIJIMA

\_\_\_\_\_  
Date

\_\_\_\_\_  
Yu Qiao

## ASSIGNMENT

THIS ASSIGNMENT, by (1) Mitsuo TAKEDA, (2) Wei WANG, (3) Tomoaki YOKOZEKI, (4) Reika ISHIJIMA and (5) Yu Qiao (hereinafter referred to as "Assignors"), residing at (1) Chofu-Shi, Tokyo, Japan, (2) Chofu-Shi, Tokyo, Japan, (3) Chofu-Shi, Tokyo, Japan, (4) Chofu-Shi, Tokyo, Japan and (5) Chofu-Shi, Tokyo, Japan respectively;

WHEREAS, Assignors have invented certain new and useful improvements in

**DISPLACEMENT DETECTION METHOD, DISPLACEMENT DETECTION DEVICE,  
DISPLACEMENT DETECTION PROGRAM, PHASE SINGULARITY MATCHING  
METHOD AND PHASE SINGULARITY MATCHING PROGRAM**

set forth in a patent application for Letters Patent of the United States, executed concurrently herewith; and

WHEREAS, National University Corporation The University of Electro-Communications (hereinafter referred to as "Assignee"), having offices at 5-1, Chofugaoka 1-Chome, Chofu-Shi, Tokyo 182-8585 Japan, is desirous of acquiring the entire right, title and interest in and to said inventions and said application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefor and thereon;

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuation-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefor and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and Assignment not been made;

AND for the same consideration, Assignors hereby represent and warrant to Assignee, its successors legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights titles, and or interests that have arisen to Assignee under the law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives, and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns shall advise; that any proceeding in connection with said inventions, or said patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable;

AND Assignors hereby request that the Director of the United States Patent and Trademark Office to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the said Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns;

AND Assignors hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document: All practitioners associated with the Customer Number 77464.

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

\_\_\_\_\_  
Date

July 24, 2008

\_\_\_\_\_  
Date

\_\_\_\_\_  
Mitsuo TAKEDA

  
\_\_\_\_\_  
Wei WANG

\_\_\_\_\_  
Date

\_\_\_\_\_  
Tomoaki YOKOZEKI



July 24, 2008

Date

*Reika Ishijima*

Reika ISHIJIMA

Date

Yu Qiao

**ASSIGNMENT**

**THIS ASSIGNMENT, by (1) Mitsuo TAKEDA, (2) Wei WANG, (3) Tomoaki YOKOZEKI, (4) Reika ISHIJIMA and (5) Yu Oiga (hereinafter referred to as "Assignors"), residing at (1) Chofu-Shi, Tokyo, Japan, (2) Chofu-Shi, Tokyo, Japan, (3) Chofu-Shi, Tokyo, Japan, (4) Chofu-Shi, Tokyo, Japan and (5) Chofu-Shi, Tokyo, Japan respectively;**

WHEREAS, Assignors have invented certain new and useful improvements in

**DISPLACEMENT DETECTION METHOD, DISPLACEMENT DETECTION DEVICE, DISPLACEMENT DETECTION PROGRAM, PHASE SINGULARITY MATCHING METHOD AND PHASE SINGULARITY MATCHING PROGRAM**

set forth in a patent application for Letters Patent of the United States, executed concurrently herewith; and

WHEREAS, **National University Corporation The University of Electro-Communications (hereinafter referred to as "Assignee"), having offices at 5-1, Chofugaoka 1-Chome, Chofu-Shi, Tokyo 182-8585 Japan,** is desirous of acquiring the entire right, title and interest in and to said inventions and said application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefor and thereon;

**NOW, THEREFORE,** in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuation-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefor and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and Assignment not been made;

**AND** for the same consideration, Assignors hereby represent and warrant to Assignee, its successors legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights titles, and or interests that have arisen to Assignee under the law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives, and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns shall advise; that any proceeding in connection with said inventions, or said patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable;

AND Assignors hereby request that the Director of the United States Patent and Trademark Office to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the said Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns;

AND Assignors hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document: All practitioners associated with the Customer Number 77464.

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Mitsuo TAKEDA

\_\_\_\_\_  
Date

\_\_\_\_\_  
Wei WANG

July 24, 2008  
\_\_\_\_\_  
Date

Tomoaki YOKOZEKI  
\_\_\_\_\_  
Tomoaki YOKOZEKI

Date

July 24, 2008

Date

Reika ISHIJIMA



Yu Qiao