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| PATENT ASSIGNMENT COVER SHEET |
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Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT2797216

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------|----------------|
| YU RAO | 03/12/2014 |
| WEI CHEN | 03/12/2014 |
| ZHIGANG CAO | 03/12/2014 |
| XIN GUO | 03/11/2014 |
| RYO SAWAI | 03/17/2014 |
| RYOTA KIMURA | 03/17/2014 |

RECEIVING PARTY DATA

| | |
|------------------------|---------------------------------------|
| Name: | SONY CORPORATION |
| Street Address: | 1-7-1 Konan, Minato-ku |
| City: | Tokyo |
| State/Country: | Japan |
| Postal Code: | 108-0075 |
| Name: | TSINGHUA UNIVERSITY |
| Street Address: | TSINGHUA UNIVERSITY, HAIDIAN DISTRICT |
| City: | BEIJING |
| State/Country: | CHINA |
| Postal Code: | 100084 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|----------------------------|----------|
| Application Number: | 14349212 |

CORRESPONDENCE DATA

Fax Number: (703)413-2220

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.

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Address Line 4: ALEXANDRIA, VIRGINIA 22314

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|--------------------------------|---------------|
| ATTORNEY DOCKET NUMBER: | 431449US8XPCT |
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PATENT

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|---|--|
| NAME OF SUBMITTER: | EMEL HASAN |
| SIGNATURE: | /Emel Hasan/ |
| DATE SIGNED: | 04/02/2014 |
| | This document serves as an Oath/Declaration (37 CFR 1.63). |
| Total Attachments: 6 source=431449USasn#page1.tif source=431449USasn#page2.tif source=431449USasn#page3.tif source=431449USasn#page4.tif source=431449USasn#page5.tif source=431449USasn#page6.tif | |

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR MULTIPLE ASSIGNEES

Title of Invention ELECTRONIC DEVICE, METHOD AND COMPUTER-READABLE MEDIUM

As the below named inventor, I hereby declare that:

This declaration The attached application, or

is directed to: United States application or PCT international application number PCT/CN2012/082487
filed on 09/29/2012

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.

WHEREAS, Sony Corporation and Tsinghua University
(hereinafter referred to as "ASSIGNEES") having places of business at: 1-7-1, Konan, Minato-ku, Tokyo, Japan 108-0075 and Tsinghua University Haidian District Beijing, China 100084, respectively are desirous of jointly acquiring interests in the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I, by these presents do sell, assign and transfer unto said ASSIGNEES, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEES as the assignees of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEES, their successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this Assignment and sale not been made.

Further, I agree that I will communicate to said ASSIGNEES or their representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEES, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEES, their successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

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.

LEGAL NAME OF INVENTOR

Inventor: Yu RAO

Date: 2014-3-12

Signature: Yu Rao

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.
ATTORNEYS AT LAW
1940 DUKE STREET
ALEXANDRIA, VIRGINIA 22314

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LEGAL NAME OF INVENTOR

Inventor: Wei CHEN

Date: 12/3/2014

Signature: 

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LEGAL NAME OF INVENTOR

Inventor: Zhigang CAO

Date: 3/12/2014

Signature: 

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LEGAL NAME OF INVENTOR

Inventor: Xin GUO

Date: Mar. 11, 2014

Signature: Xin Guo

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LEGAL NAME OF INVENTOR

Inventor: Ryo SAWAI

Date: March 17, 2014

Signature: Ryo Sawai

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LEGAL NAME OF INVENTOR

Inventor: Ryota KIMURA Date: March 17, 2014

Signature: *Ryota Kimura*

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.
 ATTORNEYS AT LAW
 1940 DUKE STREET
 ALEXANDRIA, VIRGINIA 22314

PATENT