## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5077403

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SHUAI ZHENG	10/11/2016
KOSTA RISTOVSKI	10/10/2016
CHETAN GUPTA	10/10/2016
AHMED FARAHAT	10/10/2016

### **RECEIVING PARTY DATA**

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State/Country:	JAPAN	
Postal Code:	100-8280	

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16074495

### **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER:	124512-082US1	
NAME OF SUBMITTER:	JESSICA R. GROSS	
SIGNATURE:	/Jessica R. Gross/	
DATE SIGNED:	08/01/2018	

## **Total Attachments: 2**

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PATENT 505030652 REEL: 046523 FRAME: 0187

# Assignment

Whereas, We, Shuai Zheng of Arlington, TX, Kosta Ristovski of San Jose, CA, Chetan Gupta of San Mateo, CA, Ahmed Farahat of Santa Clara, CA, hereinafter called assignors, have invented certain improvements in DEEP LONG SHORT TERM MEMORY NETWORK FOR ESTIMATION OF REMAINING USEFUL LIFE OF THE COMPONENTS and executed an application for Letters Patent of the United States of America therefor; and

Whereas, HITACHI, LTD. 6-6 Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8280, Japan (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

We, the above named assignors, hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, and all countries foreign thereto, including rights of priority under the International Convention of Paris (1883) as amended, including the right to claim priority under 35 U.S.C. §119, and We request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and We hereby agree that the assignee may apply for foreign Letters Patent on the invention and We will execute without further consideration all papers deemed necessary by the assignee in connection with the United States and foreign applications when called upon to do so by the assignee.

We hereby authorize a	and request our attorneys PROCOPIO, CORY, HARGREAVES &
SAVITCH LLP of 525 B Stre	et Suite 2200, San Diego, CA 92101 to insert here in parentheses
	495 and Confirmation number 4880 , filed
August 1, 2018 ) the	application number, confirmation number and filing date of said application
when known.	
Date: [0/11/2016   S	hun zherd
s/SI	nuai Zheng
r de la companya de	**
Date:	
s/ K	osta Ristovski
Date:	
s/Cl	hetan Gupts
Date:	
s/Al	med Farabat

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)

PATENT REEL: 046523 FRAME: 0188

# Assignment

Whereas, We, Shuai Zheng of Arlington, TX, Kosta Ristovski of San Jose, CA, Chetan Gupta of San Mateo, CA, Ahmed Farahat of Santa Clara, CA, hereinafter called assignors, have invented certain improvements in DEEP LONG SHORT TERM MEMORY NETWORK FOR ESTIMATION OF REMAINING USEFUL LIFE OF THE COMPONENTS and executed an application for Letters Patent of the United States of America therefor; and

Whereas, HITACHI, LTD. 6-6 Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8280, Japan (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

We, the above named assignors, hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, and all countries foreign thereto, including rights of priority under the International Convention of Paris (1883) as amended, including the right to claim priority under 35 U.S.C. §119, and We request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and We hereby agree that the assignee may apply for foreign Letters Patent on the invention and We will execute without further consideration all papers deemed necessary by the assignee in connection with the United States and foreign applications when called upon to do so by the assignee.

	We hereby authorize and request our attorneys PROCOPIO, CORY, HARGREAVES &
SAVIT	CH LLP of 525 B Street Suite 2200, San Diego, CA 92101 to insert here in parentheses
(Applic	cation number 16/074,495 and Confirmation number 4880 , filed
Augus when k	st 1, 2018 the application number, confirmation number and filing date of said application
Date:	
	s/ Shuai Zheng
Date:	10/10/16 L. L. Stovsci
	s/ Kosta Ristovski
Date:	10.10.16 Que Soft
	s/ Chetan Gupta
Date:	10/10/16 Shimed Tomby to
	s/ Ahmed Farahat

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)

PATENT REEL: 046523 FRAME: 0189

**RECORDED: 08/01/2018**