

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT3663403

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT

**CONVEYING PARTY DATA**

Name	Execution Date
SHLOMO SELIM RAKIB	12/07/2015

**RECEIVING PARTY DATA**

<b>Name:</b>	COHERE TECHNOLOGIES, INC.
<b>Street Address:</b>	2550 WALSH AVENUE SUITE 150
<b>City:</b>	SANTA CLARA
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	95051

**PROPERTY NUMBERS Total: 23**

Property Type	Number
Application Number:	14751041
Application Number:	14751049
Application Number:	14805400
PCT Number:	US2015041417
Application Number:	14805407
PCT Number:	US2015041420
Application Number:	62129930
Application Number:	62154937
Application Number:	62159853
Application Number:	62160257
Application Number:	62173801
Application Number:	62182760
Application Number:	62181688
Application Number:	62181691
Application Number:	62189541
Application Number:	62182372
Application Number:	62185617
Application Number:	62185619
Application Number:	62185643
Application Number:	62191468

PATENT

Property Type	Number
Application Number:	62215126
Application Number:	62215127
Application Number:	62215219

**CORRESPONDENCE DATA**

**Fax Number:**

*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*

**Phone:** 4083481495

**Email:** szweig@patentassociate.com

**Correspondent Name:** STEPHEN E. ZWEIG

**Address Line 1:** 224 VISTA DE SIERRA

**Address Line 4:** LOS GATOS, CALIFORNIA 95030

**ATTORNEY DOCKET NUMBER:** RAKIB120715ASSIGNMENTS2

**NAME OF SUBMITTER:** STEPHEN E. ZWEIG

**SIGNATURE:** /Stephen E. Zweig, reg. no. 60144/

**DATE SIGNED:** 12/17/2015

**Total Attachments: 4**

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## PATENT ASSIGNMENT

This patent assignment is made and entered into by and between the following parties:

**Ronny Hadani**, an individual citizen of Israel, with the residence address of 1000 San Marcos Street, #459, Austin Texas 78702; **Shlomo Selim Rakib**, also known as Selim Shlomo Rakib, an individual citizen of the United States with the residence address of 21329 Diamond Oaks Court Saratoga, CA 95070; hereinafter referred to as ASSIGNOR (the "ASSIGNOR")

and

**Cohere Technologies, Inc.**, a United States state of Delaware corporation, having a place of business at 2550 Walsh Avenue Suite 150, Santa Clara, California 95051 (the "ASSIGNEE")

Whereas ASSIGNOR now desires to assign, and ASSIGNEE desires to accept, any and all of ASSIGNOR's right, title and interest in and to the SUBJECT MATTER and PATENT RIGHTS set forth below.

Now therefor for \$1.00 in hand and other good and valuable consideration (the receipt and sufficiency of which ASSIGNOR expressly acknowledges), ASSIGNOR hereby assigns to ASSIGNEE, for itself and its successors, transferees, and assigns, the entirety of ASSIGNOR's worldwide right, title and interest in and to:

1. the following patent applications ("PATENT APPLICATIONS") and all inventions and improvements ("SUBJECT MATTER") that are disclosed within the PATENT APPLICATIONS:

Docket Number	Title	Application Number	Filed	Type
RAKIB-00540	ORTHONORMAL TIME-FREQUENCY SHIFTING AND SPECTRAL SHAPING COMMUNICATIONS METHOD	14/751,041	June 25, 2015	United States Patent application that is a continuation of 13/117,119 and 14/341,820
RAKIB-01230	SIGNAL MODULATION METHOD RESISTANT TO ECHO REFLECTIONS AND FREQUENCY OFFSETS	14/751,049	June 25, 2015	United States Patent application that is a continuation of 13/430,690
RAKIB-01900	METHODS OF OPERATING AND IMPLEMENTING WIRELESS OTFS COMMUNICATIONS SYSTEMS	62/027,231	July 21, 2014	United States Provisional Patent application
RAKIB-01910	METHODS OF OPERATING AND IMPLEMENTING WIRELESS OTFS COMMUNICATIONS SYSTEMS	14/805,400	July 21, 2015	United States Patent application with priority based on 62/027,231
RAKIB-01920	METHODS OF OPERATING AND IMPLEMENTING WIRELESS OTFS COMMUNICATIONS SYSTEMS	PCT/US15/41417	July 21, 2015	PCT Patent application with priority based on 62/027,231
RAKIB-02300	OTFS METHODS OF DATA CHANNEL CHARACTERIZATION AND USES THEREOF	14/583,911	December 29, 2014	United States Patent application with priority based on 62/027,231

RAKIB-02310	OTFS METHODS OF DATA CHANNEL CHARACTERIZATION AND USES THEREOF	14/805,407	July 21, 2015	United States Patent application that is a CIP of 14/583,911
RAKIB-02320	OTFS METHODS OF DATA CHANNEL CHARACTERIZATION AND USES THEREOF	PCT/US15/41420	July 21, 2015	PCT application that is a CIP of 14/583,911 and priority based on 62/027,231
RAKIB-02400	OTFS RELAY NODE SYSTEMS AND METHODS	62/129,930	March 8, 2015	United States Provisional Patent application
RAKIB-02500	SYSTEM AND METHOD TO PRODUCE AN OTFS WIRELESS CONNECTED INTERNET OF THINGS	62/154,937	April 30, 2015	United States Provisional Patent application
RAKIB-02600	ORTHOGONAL TIME FREQUENCY SPACE OTFS MODULATION	62/159,853	May 11, 2015	United States Provisional Patent application
RAKIB-02610	SYSTEMS AND METHODS FOR SYMPLECTIC ORTHOGONAL TIME FREQUENCY SHIFTING MODULATION AND TRANSMISSION OF DATA	62/160,257	May 12, 2015	United States Provisional Patent application
RAKIB-02620	SYSTEMS AND METHODS FOR SYMPLECTIC ORTHOGONAL TIME FREQUENCY SHIFTING MODULATION AND TRANSMISSION OF DATA	62/173,801	June 10, 2015	United States Provisional Patent application
RAKIB-02621	SYSTEMS AND METHODS FOR SYMPLECTIC ORTHOGONAL TIME FREQUENCY SHIFTING MODULATION AND TRANSMISSION OF DATA	62/182,760	June 22, 2015	United States Provisional Patent application
RAKIB-02700	SYSTEM AND METHOD FOR COORDINATED MANAGEMENT OF NETWORK ACCESS POINTS FOR UNLICENSED RADIOFREQUENCY SPECTRUM	62/181,688	June 18, 2015	United States Provisional Patent application
RAKIB-02800	SYSTEM AND METHOD FOR DEFINING AND SHARING BROADBAND VIRTUAL ANTENNA ARRAYS ACROSS MULTIPLE USERS	62/181,691	June 18, 2015	United States Provisional Patent application
RAKIB-02900	INCONSPICUOUS ANTENNA SYSTEM CONFIGURED FOR MULTIPLE POLARIZATION MODES ACROSS MULTIPLE DIRECTIONS	62/189,541	July 7, 2015	United States Provisional Patent application
RAKIB-03000	OTFS A NEW MODULATION FOR 5G	62/182,372	June 19, 2015	United States Provisional Patent application
RAKIB-03001	Orthogonal Time Frequency Space Modulation	62/185,617	June 27, 2015	United States Provisional Patent application
RAKIB-03002	Orthogonal Time Frequency Space Modulation	62/185,619	June 27, 2015	United States Provisional Patent application
RAKIB-03003	Orthogonal Time Frequency Space Modulation	62/185,643	June 28, 2015	United States Provisional Patent application
RAKIB-3010	METHODS OF ORTHOGONAL TIME FREQUENCY SPACE MODULATION OVER A PLURALITY OF NARROW BAND SUBCARRIERS	62/191,468	July 12, 2015	United States Provisional Patent application

RAKIB-03020	METHODS OF ORTHOGONAL TIME FREQUENCY SPACE MODULATION OVER A PLURALITY OF NARROW BAND SUBCARRIERS	62/215,126	September 7, 2015	United States Provisional Patent application
RAKIB-03021	ORTHOGONAL TIME FREQUENCY SPACE A Novel Modulation Technique Addressing the Challenges of 5G Networks	62/215,127	September 7, 2015	United States Provisional Patent application
RAKIB-03022	OTFS Compatibility with LTE	62/215,219	September 8, 2015	United States Provisional Patent application

Including but not limited to,

2. (a) any corresponding right of priority; (b) any provisional, divisional, continuation, substitute, renewal, reissue, and other related applications thereto which have been or may be filed in the United States or elsewhere in the world, including the right to file any of the foregoing; (c) any patents which may be granted pursuant to any of the PATENT APPLICATIONS, or the applications set forth in (a) and (b) above (the "PATENT RIGHTS"); and (d) the right to sue in its own name on, and to recover for past infringement of, any or all of any applications or patents issuing therefrom, together with all rights to recover damages for infringement of provisional rights.

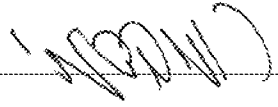
3. ASSIGNOR agrees (at ASSIGNEE's cost) to do the following, when reasonably requested, and without further consideration, in order to carry out the intent of this Agreement: (1) execute all oaths, assignments, powers of attorney, applications, and other papers necessary or reasonably desirable to fully secure to ASSIGNEE the rights, title and interests herein conveyed; (2) communicate to ASSIGNEE all known facts relevant to the prosecution of or title to the PATENT RIGHTS; and (3) generally do all lawful acts that ASSIGNEE shall consider reasonably desirable for securing, maintaining, and enforcing worldwide patent protection relating to the SUBJECT MATTER of the above-identified patent applications and Letters patents and for vesting in ASSIGNEE the rights, titles, and interests herein conveyed. ASSIGNOR further agrees to provide any successor, transferee, assignee, or legal representative of ASSIGNEE with the benefits and assistance provided to ASSIGNEE hereunder.

4. To the extent that this Agreement is not preempted by the laws of another country where these PATENT APPLICATIONS are or will be filed, this Agreement is governed by the laws of the United States, and more specifically by the laws of the United States State of California.

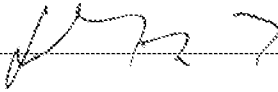
5. In the event that any of the provisions of this Agreement are found to be invalid or unenforceable, these invalid or unenforceable provisions shall not affect the remainder of this agreement, which shall remain otherwise in full force and effect. Further, each provision of this agreement will otherwise be valid and enforceable to the extent permitted by law, and any invalid provision shall be replaced with an alternative valid provision that best expresses the intention of the invalid provision.

The effective date of this assignment is November 13, 2015.

ASSIGNOR

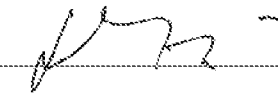
 Date of Signature 12/07/2015

Ronny Hadani, Inventor

 Date of Signature 12/07/2015

Shlomo Selim Rakib (Selim Shlomo Rakib), Inventor

Duly Authorized Representative of ASSIGNEE

 Date of Signature 12/07/2015

Shlomo Selim Rakib (Selim Shlomo Rakib), Chief Executive Officer, Cohere Technologies, Inc.

Witnessed or Notarized by: