505167921 10/31/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CENK SAHIN	10/22/2018
BRAHAM HIMED	10/19/2018
JUSTIN G METCALF	10/22/2018

RECEIVING PARTY DATA

Name:	GOVERNMENT OF THE UNITED STATED AS REPRESENTED BY SECRETARY OF THE AIR FORCE
Street Address:	2240 B STREET
Internal Address:	AFMCLO/JAZ, BLDG 11, RM 248, AREA B
City:	WRIGHT-PATTERSON AFB
State/Country:	OHIO
Postal Code:	45433-7109

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16175199

CORRESPONDENCE DATA

Fax Number: (937)255-3733

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.

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Email: afmclo.jaz.pat@us.af.mil
Correspondent Name: DAVID E FRANKLIN
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Address Line 2: AFMCLO/JAZ, BLDG 11, RM 248, AREA B
Address Line 4: WRIGHT-PATTERSON AFB, OHIO 45433-7109

ATTORNEY DOCKET NUMBER:	AFD-1783
NAME OF SUBMITTER:	DAVID E FRANKLIN
SIGNATURE:	/DAVID E FRANKLIN/
DATE SIGNED:	10/31/2018

Total Attachments: 3

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PATENT REEL: 047363 FRAME: 0278

EPAS ID: PAT5214689

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PATENT REEL: 047363 FRAME: 0279

ASSIGNMENT (Independent Contractor Inventor)

WHEREAS, I, CENK SAHIN, Jointly made or contributed to an invention while working as an independent contractor for National Research Council, under Contract Number FA9550-17-D-001, as described in invention disclosure AFD 1783 entitled "METHOD, APPARATUS AND SYSTEM FOR RECEIVING WAVEFORM-DIVERSE SIGNALS," to be filed as an application for Letters Patent of the United States (Application Serial Number ______, filed ____30-OCT-2018__), and I hereby authorize and request Air Force Patent Counsel to insert here in the above parentheses (Application Serial Number, filed) the filing date and application number of said application when known; and WHEREAS, I, CENK SAHIN, have indicated my intention to NOT elect title and NOT file an application for Letters Patent on the aforesaid invention; NOW, THEREFORE, to all whom it may concern, be it known that, by agreement and in consideration of these premises and other valuable consideration, I, CENK SAHIN, elect herein to: HEREBY HAVE SOLD, ASSIGNED, AND TRANSFERRED, and by these presents do sell, assign, and transfer unto the Government of the United States as represented by the Secretary of the Air Force, my entire right, title, and interest, in and to the aforesaid invention described in the invention disclosure, all subsequent information to support that aforesaid invention, and the resulting application for Letters Patent of the United States including all Letters Patent issuing thereon, and any continuations, continuations in part, divisions, and reissues or extensions thereof, and all patent applications claiming priority resulting from the filing of the aforesaid application for patent in the United States in any jurisdiction throughout the world; HEREBY AUTHORIZE AND REQUEST any official whose duty it is to issue patents, so issue any patent thereon to the Government of the United States, as represented by the Secretary of the Air Force, and his successors, as assignee of my entire right, title and interest in and to the same, for the sole use for the full term or terms for which said patents and any continuations, continuations in part, divisions and reissues or extensions thereof are, or may be, granted as fully and entirely as the same would have been held by me had this Assignment not been made; and HEREBY AGREE to execute, and assist with executing, any and all applications for Letters Patent, and to furnish all data and documents and to execute any papers which may be necessary or convenient for the preparation, filing, or prosecution of such applications, except it is understood I shall not be subject to any out-of-pocket expense relative to such action. SUBSCRIBED AND ACKNOWLEDGED before me by cenk sahin this 2018, at the city of $\left(\int_{\partial \mathcal{M}} \int_{\partial \mathcal{M}} dx \right)$ in the County of STEPHEN BASILE Notary Public, State of Ohio Notary Public My Commission Expires (4-30-2019

> PATENT REEL: 047363 FRAME: 0280

ASSIGNMENT (Government Inventor)

months from the declassification of the invention, whichever is later, and that all foreign rights not exercised under the option are left to me, subject to a nonexclusive, irrevocable, royalty-free license to the Government of the United States in any patent which may issue on said invention in any country or jurisdiction foreign to the United States, including the power to issue sublicenses for use on behalf of the Government of the United States and/or in furtherance of the foreign policies of the United States of America; and HEREBY AGREE to execute any and all applications for Letters Patent, and to furnish all data and documents and to execute any papers which may be necessary or convenient for the preparation, filling, or prosecution of such applications, except it is understood that I shall not be subject to any out-of-pocket expense relative to such action. Braham NMI himed SUBSCRIBED AND ACKNOWLEDGED before me by BRAHAM NMI HIMED this
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months from the declassification of the invention, whichever is later, and that all foreign rights not exercised under the
months of the first filing date of any application for United States Letters Patent covering the invention or within eight
this grant of an option to take foreign rights in the invention must be exercised by written notice to me within eight
be filed, applications for Letters Patent, without payment to me of any further consideration; provided, however, that
countries or jurisdictions foreign to the United States in which the Government of the United States may file, or cause to
HEREBY ALSO GRANT to the Government of the United States, as represented by the Secretary of the Air Force, the option to take the entire right, title and interest in the invention or all applications for Letters Patent thereon in all
fully and entirely as the same would have been held by me had this Assignment not been made;
and any continuations, continuations-in-part, divisions and reissues or extensions thereof are, or may be, granted as
my entire right, title and interest in and to the same, for the sole use for the full term or terms for which said patents
the Government of the United States, as represented by the Secretary of the Air Force, and his successors, as assignee of
HEREBY AUTHORIZE AND REQUEST any official whose duty it is to issue patents, to issue any patent thereon to
priority resulting from the filing of the aforesaid application for patent in the United States;
issuing thereon, and any continuations, continuations-in-part, divisions, and reissues or extensions thereof; and all
aforesaid invention, and the resulting application for Letters Patent of the United States including all Letters Patent
in and to the aforesaid invention described in the invention disclosure, all subsequent information to support that
the Government of the United States as represented by the Secretary of the Air Force, my entire right, title, and interest,
HEREBY HAVE SOLD, ASSIGNED, AND TRANSFERRED, and by these presents do sell, assign, and transfer unto
other valuable considerations, I, BRAHAM NMI HIMED:
NOW, THEREFORE, to all whom it may concern, be it known that for and in consideration of the premises and
entire right, title and interest therein, including foreign rights;
United States as represented by the Secretary of the Air Force, under Paragraph 1(a) of Executive Order 10096, to the
WHEREAS, the conditions under which said invention was made are such as to entitle the Government of the
application when known; and
here in the above parentheses (Application Serial Number, filed) the filing date and application number of said
16/175,199 , filed 30-Oct-2018), and I hereby authorize and request Air Force Patent Counsel to insert
SIGNALS," to be filed as an application for Letters Patent of the United States (Application Serial Number

ASSIGNMENT (Government inventor)

WHEREAS, I, JUSTIN G. METCALF, while employed by the Government of the United States, made or contributed to an invention described in invention disclosure AFD 1783 entitlede METHOD, APPARATUS AND SYSTEM FOR RECEIVING WAVEFORM-DIVERSE

SIGNALS, to be filed as an application for Letters Patent of the United States (Application Serial Number 16/175,199 ____ filed 30 Oct 2018, and I hereby authorize and request Air Force Patent Counsel to insert here in the above parentheses (Application Serial Number, filed) the filing date and application number of said application when known; and

WHEREAS, the conditions under which said invention was made are such as to entitle the Government of the United States as represented by the Secretary of the Air Force, under Paragraph 1(a) of Executive Order 10096, to the entire right, title and interest therein, including foreign rights;

NOW, THEREFORE, to all whom it may concern, be it known that for and in consideration of the premises and other valuable considerations, I, JUSTIN G. METCALF:

HEREBY HAVE SOLD, ASSIGNED, AND TRANSFERRED, and by these presents do sell, assign, and transfer unto the Government of the United States as represented by the Secretary of the Air Force, my entire right, title, and interest, in and to the aforesaid invention described in the invention disclosure, all subsequent information to support that aforesaid invention, and the resulting application for Letters Patent of the United States including all Letters Patent issuing thereon, and any continuations, continuations-in-part, divisions, and reissues or extensions thereof; and all priority resulting from the filing of the aforesaid application for patent in the United States;

HEREBY AUTHORIZE AND REQUEST any official whose duty it is to issue patents, to issue any patent thereon to the Government of the United States, as represented by the Secretary of the Air Force, and his successors, as assignee of my entire right, title and interest in and to the same, for the sole use for the full term or terms for which said patents and any continuations, continuations-in-part, divisions and reissues or extensions thereof are, or may be, granted as fully and entirely as the same would have been held by me had this Assignment not been made;

HEREBY ALSO GRANT to the Government of the United States, as represented by the Secretary of the Air Force, the option to take the entire right, title and interest in the invention or all applications for Letters Patent thereon in all countries or jurisdictions foreign to the United States in which the Government of the United States may file, or cause to be filed, applications for Letters Patent, without payment to me of any further consideration; provided, however, that this grant of an option to take foreign rights in the invention must be exercised by written notice to me within eight months of the first filing date of any application for United States Letters Patent covering the invention or within eight months from the declassification of the invention, whichever is later, and that all foreign rights not exercised under the option are left to me, subject to a nonexclusive, irrevocable, royalty-free license to the Government of the United States in any patent which may issue on said invention in any country or jurisdiction foreign to the United States, including the power to issue sublicenses for use on behalf of the Government of the United States and/or in furtherance of the foreign policies of the United States of America; and

HEREBY AGREE to execute any and all applications for Letters Patent, and to furnish all data and documents and to execute any papers which may be necessary or convenient for the preparation, filing, or prosecution of such applications, except it is understood that I shall not be subject to any out-of-pocket expense relative to such action.

SUBSCRIBED AND ACKNOWLEDGED before me by JUSTIN G. METCALF this 22 day of OTAGO in the County of PUBLIC CIEUL (and and State of OKUA homa OFTAHOLO OFTAHOLO

PATENT REEL: 047363 FRAME: 0282

RECORDED: 10/31/2018