506103947 06/12/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6150669

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MICHAEL ROBERT NOTARNICOLA	05/19/2020
JOSHUA TYLER MOOK	05/19/2020
KEVIN MICHAEL VANDEVOORDE	06/05/2020
AIGBEDION AKWARA	05/19/2020
MOHAMMED EL HACIN SENNOUN	05/19/2020
MARY KATHRYN THOMPSON	05/22/2020
SCOTT DOUGLAS WAUN	05/22/2020
MICHAEL THOMAS GANSLER	05/21/2020

RECEIVING PARTY DATA

Name:	GENERAL ELECTRIC COMPANY
Street Address:	1 RIVER ROAD
City:	SCHENECTADY
State/Country:	NEW YORK
Postal Code:	12345

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16878736

CORRESPONDENCE DATA

Fax Number: (864)233-7342

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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ATTORNEY DOCKET NUMBER:	501567-US-2/GE3D-233-1
NAME OF SUBMITTER:	ALAN R. MARSHALL
SIGNATURE:	/Alan R. Marshall/

PATENT 506103947 REEL: 052922 FRAME: 0036

DATE SIGNED:	06/12/2020
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 11

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PATENT REEL: 052922 FRAME: 0037

COMBINED DECLARATION AND GLOBAL ASSIGNMENT

FOR UTILITY OR DESIGN PATENT APPLICATION

As the below named inventor(s), I/we hereby declare that:

This declaration and assignment are directed to:

CONSTANT DENSITY HEAT EXCHANGER AND SYSTEM FOR ENERGY CONVERSION

	the specification of which is attached hereto OR
X	United States application or PCT international application number 16/878,736 filed on May 20, 2020, as amended on [date] (if applicable). (We hereby authorize and request the Company or its delegated attorneys
	or agents to insert above the application number and filing date of the application when known.)

The above-identified application was made or authorized to be made by us.

We believe that we are original joint inventors of a claimed invention in the application.

We hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC § 1001 by fine or imprisonment of not more than five (5) years, or both.

We have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment referred to above.

We acknowledge the duty to disclose information which is material to the patentability of this application as defined in 37 CFR § 1.56, including, for continuation-in-part applications, material information which became available between the filing date of the prior application and the filing date of the continuation-in-part application.

In accordance with our obligation(s) under an Employee Innovation and Proprietary Information Agreement or (as applicable) arising out of other agreements (such as, but not limited to, the Services Agreement between General Electric Company, a New York corporation, and our employers), and/or for other good and valuable consideration of which we acknowledge receipt, I/we.

Inventor First Name	Inventor Middle Name	Inventor Last Name		Residence Town	Residence State	Residence Country
Michael	Robert	Notarnicola	of	Cincinnati	Ohio	USA
Joshua	Tyler	Mook	of	Cincinnati	Ohio	USA
Kevin	Michael	VandeVoorde	of	Cincinnati	Ohio	USA
Aigbedion		Akwara	of	Cincinnati	Ohio	USA
Mohammed	El Hacin	Sennoun	of	West Chester	Ohio	USA

Mary	Kathryn	Thompson	of	Fairfield Township	Ohio	USA
Scott	Douglas	Waun	of	Loveland	Ohio	USA
Michael	Thomas	Gansler	of	Mason	Ohio	USA

hereby sell and assign to:

Name of Company: General Electric Company
Entity Type (optional): New York corporation
Address: 1 River Road, Schenectady, New York 12345 USA

herein referred to as "Company", its successors and assigns our entire respective rights, titles and interests in and to the invention and improvements made or conceived by us described in the application(s) listed above and in the following table:

Country of Filing	Type of Filing	Application Number	Filing Date	Title
US	Provisional	62/850,599	May 21, 2019	HEAT EXCHANGER ASSEMBLY
US	Provisional	62/850,623	May 21, 2019	ENGINE APPARATUS AND METHOD FOR OPERATION
US	Provisional	62/850,678	May 21, 2019	APPARATUS AND SYSTEM FOR ENERGY CONVERSION
US	Provisional	62/850,692	May 21, 2019	ENERGY CONVERSION APPARATUS AND CONTROL SYSTEM
US	Provisional	62/850,701	May 21, 2019	SYSTEM FOR ENERGY CONVERSION

(We hereby authorize and request the Company or its delegated attorneys or agents to insert above the application number and filing date of the application(s) when known.)

and any and all applications for patent and patents therefrom in any and all countries, including all divisions, continuations, continuations-in-part, reexaminations, renewals, and reissues thereof, and all rights of priority resulting from the filing of the application(s), and authorize and request any official whose duty it is to issue patents, to issue any patent on the inventions and improvements resulting therefrom to the Company, or its successors or assigns, and agree that on request and without further consideration, we will communicate to the Company or its representatives or nominees any facts known to us respecting the inventions and improvements and testify in any legal proceeding, make all rightful oaths, sign all lawful papers and execute all instruments or documents required or requested for the making and prosecution of any

applications of any type for patent, utility model, or other similar rights in all countries including, but not limited to, any provisional, non-provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, for any derivation proceedings relating thereto, and, as to any patents that issue from such applications, for any supplemental examination, derivation proceeding, opposition, post grant review, reissue, re-examination, inter partes review, or extension thereof, and generally do everything possible to aid the Company, its successors, assigns, and nominees to obtain and enforce proper patent protection for the invention and its improvements in all countries.

Remuneration claims of the inventor(s)/assignor(s) potentially arising from German Law on Employee Inventions, or any other respective country law, remain unaffected by this assignment.

INVENTOR 1	
Signature: <u>//L/ P/F//</u> Michael Robert Notarnicola	Date: <u>\$ 19 7070</u>
Witnessed 6 Signature	Date: 5/19/222
TEANS SANOS	
Printed Name of Witness	
Witnessed by: J. Signature	Date: <u>5/19/202</u>
- Janot Mekker	
Printed Name of Witness	
SECTION BELOW IS FOR USE ONLY IF SIG	ONING IN PRESENCE OF A NOTARY
	Date:
Michael Robert Notarnicola	
STATE OF	
STATE OF ss.	
STATE OF	
STATE OF ss.	known as the individual who executed the
STATE OF ss. COUNTY OF This day of,,,,	known as the individual who executed the

INVENTOR 2	
Signature: John John Af	Date: 5/19/20
Witnessed by: M. Signature	2 Date: <u>5/19/20</u>
Printed Name of Witness Witnessed by: Signature Canet Medde V Printed Name of Witness	
SECTION BELOW IS FOR USE ONLY IF	SIGNING IN PRESENCE OF A NOTARY
	Date:
Joshua Tyler Mook	
STATE OF	
county of	
Joshua Tyler Mook, to me personally know	before me personally came the above-named in as the individual who executed the foregoing ne/she executed the same of his/her own free will for
Seal	
	(Notary Public)

INVENTOR 3		
Signature: <u>Men Utdale Vallet</u> Kevin Michael VandeVoorde	Date: 06/05/2020	
Witnessed by:Signature	Date:	
Printed Name of Witness	_	
Witnessed by:Signature	Date:	
Printed Name of Witness SECTION BELOW IS FOR USE ONLY IF SIG	NING IN PRESENCE OF A NOTARY	
	Date:	
STATE OF ss.		
COUNTY OF		
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Seal		
	(Notary Public)	

GE Docket No. 501567-US-2/GE3D-233-1

INVENTOR 4			
Cardings of Comments	on Akwara	to part.	*
Witnessed by:	Signature	Date: <u>5/</u>	9/2020
TEAVIS S Printed Name of Witness	<u> </u>		
Witnessed by:	<u>X</u> \Signature	Date: 5/	19/2020
Printed Name of Witness SECTION BELOW IS F	OR USE ONLY IF SIGN	ING IN PRESENCE	OF A NOTARY
		ite:	
Aigbedion Akwara		***************************************	
STATE OF	\$\$.		
COUNTY OF			
This day of Algbedion Akwara, to me assignment, who acknowle the purposes therein set fo	personally known as the dged to me that he/she	e individual who exe	cuted the foregoing
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INVENTOR 5		
Signature: 1995 Signature: Mohammed El Hacin Sennotin	Date: <u>5//9/20</u> 21	0
Witnessed by:Signature	Date:	
Printed Name of Witness		
Witnessed by:Signature	Date:	
Printed Name of Witness		***************************************
SECTION BELOW IS FOR USE ONLY IF SIG	NING IN PRESENCE OF A NOTARY	
	Date:	
Mohammed El Hacin Sennoun		
STATE OF		
COUNTY OF		
This day of,	y known as the individual who executed t	he
Seal		
· · · · · · · · · · · · · · · · · · ·	(Notary Public)	

INVENTOR 6		
Signature: May Kuthryn Thompson	Date:	5/22/2020_
Witnessed by: <u>FF HLL</u> Signature	Date:	<u> 5/22/2020</u>
Treat Huhlenkeam Printed Name of Witness Witnessed by:	D-1-	5/22/2020
Signature VIVE STOYEN BARRET Printed Name of Witness	Date.	31-4 000
SECTION BELOW IS FOR USE ONLY IF SIG	NING IN PRES	ENCE OF A NOTARY
Mary Kathryn Thompson	Date:	
STATE OF		
county of		
This day of,,	before me pers wn as the indivi e executed the	onally came the above-named dual who executed the foregoing same of his/her own free will for
Seal		
		(Notani Bublic)

INVENTOR 7	n
Signature: Scott Douglas Waun	Jen Date: 2/22/2020
Witnessed by: <u>+7 4//</u> Signatur	
Treat Huhlesteams Printed Name of Witness	
Witnessed by:	Date: <u>5/27/22></u>
<u> Yণ্যত Sক্ষেত্র উত্তর্জ</u> Printed Name of Witness	<u> </u>
SECTION BELOW IS FOR USE OF	NLY IF SIGNING IN PRESENCE OF A NOTARY
	Date:
Scott Douglas Waun	
STATE OF	
COUNTY OF	SS.
ocou pouglas vaun, to me personal	, before me personally came the above-named ly known as the individual who executed the foregoing that he/she executed the same of his/her own free will for
Seal	
	(Notary Public)

INVENTOR 8	
Signature: MML 7. LL Michael Thomas Gansler	Date:
Witnessed by: Ada her Signature	Date: 5/21/2020
Printed Name of Witness	-
Witnessed by: Signature	Date: 5/21/2020
Brian Thompson Printed Name of Witness	
Printed Name of Witness	
SECTION BELOW IS FOR USE ONLY IF SIG	SNING IN PRESENCE OF A NOTARY
	Date:
Michael Thomas Gansler	
STATE OF	
COUNTY OF	
This day of,,,,,	will as the individual who executed the foregoing
Seal	
	(Notary Public)