

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3978160

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
HABEEB KHAN PATHAN	07/12/2016
PAUL LLOYD FLYNN	07/12/2016
PRITAMKUMAR GANGWAL	07/12/2016
JAMES ROBERT SCHREINER	07/12/2016
BHANUPRAKASH HARANAHALLI PANCHAKSHARI	07/12/2016
ANINDA BHATTACHARYA	07/18/2016
GANESASUBRAMANIAN MURUGESAN	07/18/2016
MILAN PALINDA KARUNARATNE	07/21/2016
DANIEL CULLEN	07/18/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	GENERAL ELECTRIC COMPANY
<b>Street Address:</b>	1 RIVER ROAD
<b>City:</b>	SCHENECTADY
<b>State/Country:</b>	NEW YORK
<b>Postal Code:</b>	12345
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15219490
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(203)373-7153
<i>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.</i>	
<b>Phone:</b>	203-366-7482
<b>Email:</b>	Claire.Murray@ge.com
<b>Correspondent Name:</b>	GE GLOBAL PATENT OPERATION
<b>Address Line 1:</b>	3135 EASTON TURNPIKE
<b>Address Line 4:</b>	FAIRFIELD, CONNECTICUT 06828
<b>ATTORNEY DOCKET NUMBER:</b>	310910 _1
<b>NAME OF SUBMITTER:</b>	JOHN A. KRAMER

<b>SIGNATURE:</b>	/John A. Kramer/
<b>DATE SIGNED:</b>	07/26/2016
<b>Total Attachments: 11</b> source=310910_1_US_Combined_Dec_Assg#page1.tif source=310910_1_US_Combined_Dec_Assg#page2.tif source=310910_1_US_Combined_Dec_Assg#page3.tif source=310910_1_US_Combined_Dec_Assg#page4.tif source=310910_1_US_Combined_Dec_Assg#page5.tif source=310910_1_US_Combined_Dec_Assg#page6.tif source=310910_1_US_Combined_Dec_Assg#page7.tif source=310910_1_US_Combined_Dec_Assg#page8.tif source=310910_1_US_Combined_Dec_Assg#page9.tif source=310910_1_US_Combined_Dec_Assg#page10.tif source=310910_1_US_Combined_Dec_Assg#page11.tif	

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:

**SYSTEMS AND METHOD FOR MULTI-CYLINDER MISFIRE DETECTION**

- ☒ the specification of which is attached hereto OR  
☐ United States application or PCT international application number \_\_\_\_\_, 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
Habeeb	Khan	Pathan	of	Andhra Pradesh		IN
Paul	Lloyd	Flynn	of	Lawrence Park	PA	US
Pritamkumar		Gangwal	of	Bangalore		IN
James	Robert	Schreiner	of	Erie	PA	US
Bhanuprakash		Haranahalli	of	Bangalore		IN

		Panchakshari				
Aninda		Bhattacharya	of	Bangalore		IN
Ganesasubramanian		Murugesan	of	Bangalore		IN
Milan	Palinda	Karunaratne	of	Anaheim	CA	US
Daniel		Cullen	of	Erie	PA	US

v9.18.12

hereby sell and assign to:

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

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

(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: Habeeb Khan  
Habeeb Khan Pathan

Date: 12/Jul/2016

Witnessed by: [Signature]  
Signature

Date: 12/Jul/2016

SHAILOSH NAIR  
Printed Name of Witness

Witnessed by: [Signature]  
Signature

Date: 12/Jul/2016

SUSEEL SANKARAN  
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

\_\_\_\_\_  
Date: \_\_\_\_\_

Habeeb Khan Pathan

STATE OF

ss.

COUNTY OF

This \_\_\_\_\_ day of \_\_\_\_\_ before me personally came the above-named inventor, Habeeb Khan Pathan, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

\_\_\_\_\_

(Notary Public)

INVENTOR 2

Signature: Paul L Flynn  
Paul Lloyd Flynn

Date: 7/12/2016

Witnessed by: Peggyann Flynn  
Signature

Date: 7/12/2016

Peggyann Flynn  
Printed Name of Witness

Witnessed by: Nancy Brazill  
Signature

Date: 7/12/16

NANCY BRAZILL  
Printed Name of Witness

**SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY**

\_\_\_\_\_  
Date: \_\_\_\_\_

Paul Lloyd Flynn

STATE OF

ss.

COUNTY OF

This \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ before me personally came the above-named inventor, Paul Lloyd Flynn, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

\_\_\_\_\_  
(Notary Public)

INVENTOR 3

Signature: Pritamkumar Gangwal  
Pritamkumar Gangwal

Date: 12-Jul-2016

Witnessed by: Shailesh Nair  
Signature

Date: 12/Jul/2016

SHAILESH NAIR  
Printed Name of Witness

Witnessed by: Kusuma Kumari M  
Signature

Date: 12/Jul/2016

KUSUMA KUMARI M  
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

\_\_\_\_\_  
Date: \_\_\_\_\_

Pritamkumar Gangwal

STATE OF \_\_\_\_\_

ss. \_\_\_\_\_

COUNTY OF \_\_\_\_\_

This \_\_\_\_\_ day of \_\_\_\_\_, before me personally came the above-named inventor, Pritamkumar Gangwal, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal \_\_\_\_\_

\_\_\_\_\_  
(Notary Public)

INVENTOR 4

Signature: [Signature]  
James Robert Schreiner

Date: 7/12/2016

Witnessed by: [Signature]  
Signature

Date: 7/12/2016

CHRISTOPHER BURN  
Printed Name of Witness

Witnessed by: [Signature]  
Signature

Date: 7/12/2016

Christopher J. Mueller  
Printed Name of Witness

**SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY**

\_\_\_\_\_  
Date: \_\_\_\_\_

James Robert Schreiner

STATE OF

ss.

COUNTY OF

This \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ before me personally came the above-named inventor, **James Robert Schreiner**, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

\_\_\_\_\_  
(Notary Public)



INVENTOR 5

Signature: [Signature] H.F.  
Bhanuprakash Haranahalli Panchakshari

Date: 12/Jul/2016

Witnessed by: [Signature]  
Signature

Date: 12/Jul/2016

SHAIKESH MOIR  
Printed Name of Witness

Witnessed by: [Signature]  
Signature

Date: 12/Jul/2016

Kesuma Kumari  
Printed Name of Witness

**SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY**

\_\_\_\_\_  
Date: \_\_\_\_\_

Bhanuprakash Haranahalli Panchakshari

STATE OF

SS:

COUNTY OF

This \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ before me personally came the above-named inventor, Bhanuprakash Haranahalli Panchakshari, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

\_\_\_\_\_  
(Notary Public)

INVENTOR 6

Signature: \_\_\_\_\_

Aninda Bhattacharya

Date: \_\_\_\_\_

July 18, 2016

Witnessed by: \_\_\_\_\_

Signature

Date: \_\_\_\_\_

July 18, 2016

ADHILASH NAIR

Printed Name of Witness

Witnessed by: \_\_\_\_\_

Signature

Date: \_\_\_\_\_

JULY 18, 2016

ARTUN ROY

Printed Name of Witness

**SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY**

Date: \_\_\_\_\_

Aninda Bhattacharya

STATE OF

SS.

COUNTY OF

This \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ before me personally came the above-named inventor, Aninda Bhattacharya, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

(Notary Public)

INVENTOR 7

Signature: M. Ganesasubramanian  
Ganesasubramanian Murugesan

Date: 18-07-2016

Witnessed by: Amol Petakar  
Signature

Date: 18-07-2016

Amol Petakar  
Printed Name of Witness

Witnessed by: [Signature]  
Signature

Date: 18/07/2016

Dhananjay Gadgil  
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

\_\_\_\_\_  
Date: \_\_\_\_\_

Ganesasubramanian Murugesan

STATE OF

ss.

COUNTY OF

This \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ before me personally came the above-named inventor, Ganesasubramanian Murugesan, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

\_\_\_\_\_  
(Notary Public)

INVENTOR 8

Signature: \_\_\_\_\_

Milan Palinda Karunaratne

Date: \_\_\_\_\_

07/21/16

Witnessed by: \_\_\_\_\_

Signature

Date: \_\_\_\_\_

07/21/2016

SANTOSH NAREDDI

Printed Name of Witness

Witnessed by: \_\_\_\_\_

Signature

Date: \_\_\_\_\_

07/21/2016

Surani Jayaratna

Printed Name of Witness

**SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY**

Date: \_\_\_\_\_

Milan Palinda Karunaratne

STATE OF \_\_\_\_\_

ss. \_\_\_\_\_

COUNTY OF \_\_\_\_\_

This \_\_\_\_\_ day of \_\_\_\_\_ before me personally came the above-named inventor, Milan Palinda Karunaratne, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

\_\_\_\_\_  
(Notary Public)

INVENTOR 9

Signature: [Signature]  
Daniel Cullen

Date: 7/18/2016

Witnessed by: [Signature]  
Signature

Date: 7/18/2016

PRIYA MACCAFERRI  
Printed Name of Witness

Witnessed by: [Signature]  
Signature

Date: 7/18/2016

John Fulton  
Printed Name of Witness

**SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY**

\_\_\_\_\_  
Date: \_\_\_\_\_

Daniel Cullen

STATE OF

SS.

COUNTY OF

This \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ before me personally came the above-named inventor, Daniel Cullen, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

\_\_\_\_\_  
(Notary Public)