507543121 10/13/2022

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HENRY CHAN	01/06/2020
BADRI NARAYANAN	01/02/2020
MATHEW J. CHERUKARA	12/18/2019
STEPHEN K. GRAY	01/01/2020
TROY DAVID LOEFFLER	06/16/2020
SUBRAMANIAN SANKARANARAYANAN	04/21/2020

RECEIVING PARTY DATA

Name:	UCHICAGO ARGONNE, LLC
Street Address:	5801 SOUTH ELLIS AVENUE
City:	CHICAGO
State/Country:	ILLINOIS
Postal Code:	60637

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16704936

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.

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Email: jwiggins@foley.com

Correspondent Name: MATTHEW E. MARTIN/FOLEY & LARDNER LLP

Address Line 1: 321 N. CLARK STREET

Address Line 2: SUITE 3000

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ATTORNEY DOCKET NUMBER:	051583-0905
NAME OF SUBMITTER:	MATTHEW E. MARTIN
SIGNATURE:	/Matthew E. Martin/
DATE SIGNED:	10/13/2022

PATENT 507543121 REEL: 061416 FRAME: 0752

Total Attachments: 6 source=051583-0905-Executed-Assignment#page1.tif source=051583-0905-Executed-Assignment#page2.tif source=051583-0905-Executed-Assignment#page3.tif

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PATENT REEL: 061416 FRAME: 0753

I, Henry Chan of Schaumburg, IL for good and valuable considerations to me in hand paid, the receipt and sufficiency whereof is hereby acknowledged, have sold, assigned, conveyed and set over, and do hereby sell, assign, convey and set over unto UChicago Argonne, LLC, having a place of business at 5801 South Ellis Avenue, Chicago, Illinois 60637, its successors and assigns, the entire right, title and interest in and to all subject matter invented or designed by me and disclosed in the patent application for the, "SYSTEMS AND METHODS FOR DESIGNING HEIRARCHICAL MULTI-OBJECTIVE OPTIMIZATION" (ANL-IN-19-010) filed in the U.S. Patent and Trademark Office on December 5, 2019 as Application Serial No.16/704,936 and any divisions and continuations thereof (CIP filed and in and to all Letters Patent of the United States, including any reissues and extensions thereof that may be obtained therefor, and the right, where such right can be legally exercised, in its own name to apply for and obtain Letters Patent, Inventor's Certificates, Utility Models and Designs, in countries foreign to the United States, including the full right to claim for any such application the benefits of the International Convention as fully and entirely as I could have done if the application had been in my name, and the entire interest in any Letters Patent, Inventor's Certificate, Utility Model or Design which may be granted on any such application in such foreign country; and we hereby authorize and request the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States whose duty it is to issue Letters Patent, Inventors Certificates, Utility Models or Designs, on applications as aforesaid, to issue any and all Letters Patent, Inventor's Certificates, Utility Models and Designs that may be granted for said invention to said UChicago Argonne, LLC, its successors and assigns.

And for the above-named considerations, I hereby agree that I will without additional compensation but without cost to myself, promptly communicate to said UChicago Argonne, LLC, its successors and assigns, any facts known to us respecting said invention whenever requested, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuing and reissue applications for Letters Patent, Inventor's Certificates, Utility Models and Designs and assignments thereof, make all rightful oaths and generally do everything possible to aid said assignee, its successors and assigns, as and when requested by them, in obtaining and enforcing proper Letters Patents, Inventor's Certificate, Utility Model and Design protection for said invention or inventions and improvements, in the United States and in all other countries.

Henry Chan Printed Name Jan 6, 2020

Signature

Witness Printed Name

Printed Date

Witness Signatür

I, Badri Narayanan of Clarendon Hills, IL for good and valuable considerations to me in hand paid, the receipt and sufficiency whereof is hereby acknowledged, have sold, assigned, conveyed and set over, and do hereby sell, assign, convey and set over unto UChicago Argonne, LLC, having a place of business at 5801 South Ellis Avenue, Chicago, Illinois 60637, its successors and assigns, the entire right, title and interest in and to all subject matter invented or designed by me and disclosed in the patent application for the, "SYSTEMS AND METHODS FOR DESIGNING HEIRARCHICAL MULTI-OBJECTIVE OPTIMIZATION" (ANL-IN-19-010) filed in the U.S. Patent and Trademark Office on December 5, 2019 as Application Serial No.16/704,936 and any divisions and continuations thereof (CIP filed and in and to all Letters Patent of the United States, including any reissues and extensions thereof that may be obtained therefor, and the right, where such right can be legally exercised, in its own name to apply for and obtain Letters Patent, Inventor's Certificates, Utility Models and Designs, in countries foreign to the United States, including the full right to claim for any such application the benefits of the International Convention as fully and entirely as I could have done if the application had been in my name, and the entire interest in any Letters Patent, Inventor's Certificate, Utility Model or Design which may be granted on any such application in such foreign country; and we hereby authorize and request the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States whose duty it is to issue Letters Patent, Inventors Certificates, Utility Models or Designs, on applications as aforesaid, to issue any and all Letters Patent, Inventor's Certificates, Utility Models and Designs that may be granted for said invention to said UChicago Argonne, LLC, its successors and assigns.

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Badri Narayanan
Printed Name

O1/02/2020
Printed Date
Signature

Kevin D Murphy
O1/02/2020
Witness Printed Name

Printed Date
Witness Signature

PATENT REEL: 061416 FRAME: 0755

I, Mathew J. Cherukara of Elmhurst, IL for good and valuable considerations to me in hand paid, the receipt and sufficiency whereof is hereby acknowledged, have sold, assigned, conveyed and set over, and do hereby sell, assign, convey and set over unto UChicago Argonne, LLC, having a place of business at 5801 South Ellis Avenue, Chicago, Illinois 60637, its successors and assigns, the entire right, title and interest in and to all subject matter invented or designed by me and disclosed in the patent application for the, "SYSTEMS AND METHODS FOR DESIGNING HEIRARCHICAL MULTI-OBJECTIVE OPTIMIZATION" (ANL-IN-19-010) filed in the U.S. Patent and Trademark Office on December 5, 2019 as Application Serial No.16/704,936 and any divisions and continuations thereof (CIP filed and in and to all Letters Patent of the United States, including any reissues and extensions thereof that may be obtained therefor, and the right, where such right can be legally exercised, in its own name to apply for and obtain Letters Patent, Inventor's Certificates, Utility Models and Designs, in countries foreign to the United States, including the full right to claim for any such application the benefits of the International Convention as fully and entirely as I could have done if the application had been in my name, and the entire interest in any Letters Patent, Inventor's Certificate, Utility Model or Design which may be granted on any such application in such foreign country; and we hereby authorize and request the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States whose duty it is to issue Letters Patent, Inventors Certificates, Utility Models or Designs, on applications as aforesaid, to issue any and all Letters Patent, Inventor's Certificates, Utility Models and Designs that may be granted for said invention to said UChicago Argonne, LLC, its successors and assigns.

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Mathew J. Cherukara

Printed Name

Signature

Witness Signature

I, Stephen K. Gray of Wheaton, IL for good and valuable considerations to me in hand paid, the receipt and sufficiency whereof is hereby acknowledged, have sold, assigned, conveyed and set over, and do hereby sell, assign, convey and set over unto UChicago Argonne, LLC, having a place of business at 5801 South Ellis Avenue, Chicago, Illinois 60637, its successors and assigns, the entire right, title and interest in and to all subject matter invented or designed by me and disclosed in the patent application for the, "SYSTEMS AND METHODS FOR DESIGNING HEIRARCHICAL MULTI-OBJECTIVE OPTIMIZATION" (ANL-IN-19-010) filed in the U.S. Patent and Trademark Office on December 5, 2019 as Application Serial No.16/704,936 and any divisions and continuations thereof (CIP filed and in and to all Letters Patent of the United States, including any reissues and extensions thereof that may be obtained therefor, and the right, where such right can be legally exercised, in its own name to apply for and obtain Letters Patent, Inventor's Certificates, Utility Models and Designs, in countries foreign to the United States, including the full right to claim for any such application the benefits of the International Convention as fully and entirely as I could have done if the application had been in my name, and the entire interest in any Letters Patent, Inventor's Certificate, Utility Model or Design which may be granted on any such application in such foreign country; and we hereby authorize and request the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States whose duty it is to issue Letters Patent, Inventors Certificates, Utility Models or Designs, on applications as aforesaid, to issue any and all Letters Patent, Inventor's Certificates, Utility Models and Designs that may be granted for said invention to said UChicago Argonne, LLC, its successors and assigns.

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Stephen K. Gray
Printed Name

Printed Date

Signature

Cohan Colles
Witness Printed Name

Volume Signature

Witness Signature

PATENT REEL: 061416 FRAME: 0757

I, Troy David Loeffler of Chicago, IL for good and valuable considerations to me in hand paid, the receipt and sufficiency whereof is hereby acknowledged, have sold, assigned, conveyed and set over, and do hereby sell, assign, convey and set over unto UChicago Argonne, LLC, having a place of business at 5801 South Ellis Avenue, Chicago, Illinois 60637, its successors and assigns, the entire right, title and interest in and to all subject matter invented or designed by me and disclosed in the patent application for the, "SYSTEMS AND METHODS FOR DESIGNING HEIRARCHICAL MULTI-OBJECTIVE OPTIMIZATION" (ANL-IN-19-010) filed in the U.S. Patent and Trademark Office on December 5, 2019 as Application Serial No.16/704,936 and any divisions and continuations thereof (CIP filed and in and to all Letters Patent of the United States, including any reissues and extensions thereof that may be obtained therefor, and the right, where such right can be legally exercised, in its own name to apply for and obtain Letters Patent, Inventor's Certificates, Utility Models and Designs, in countries foreign to the United States, including the full right to claim for any such application the benefits of the International Convention as fully and entirely as I could have done if the application had been in my name, and the entire interest in any Letters Patent, Inventor's Certificate, Utility Model or Design which may be granted on any such application in such foreign country; and we hereby authorize and request the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States whose duty it is to issue Letters Patent, Inventors Certificates, Utility Models or Designs, on applications as aforesaid, to issue any and all Letters Patent, Inventor's Certificates, Utility Models and Designs that may be granted for said invention to said UChicago Argonne, LLC, its successors and assigns.

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Troy David Loeffler Printed Name Printed Date

Signature

Witness Printed Marco

Printed Date

Witness Signatur

I, Subramanian Sankaranarayanan of Naperville, IL for good and valuable considerations to me in hand paid, the receipt and sufficiency whereof is hereby acknowledged, have sold, assigned, conveyed and set over, and do hereby sell, assign, convey and set over unto UChicago Argonne, LLC, having a place of business at 5801 South Ellis Avenue, Chicago, Illinois 60637, its successors and assigns, the entire right, title and interest in and to all subject matter invented or designed by me and disclosed in the patent application for the, "SYSTEMS AND METHODS FOR DESIGNING HEIRARCHICAL MULTI-OBJECTIVE OPTIMIZATION" (ANL-IN-19-010) filed in the U.S. Patent and Trademark Office on December 5, 2019 as Application Serial No.16/704,936 and any divisions and continuations thereof (CIP filed and in and to all Letters Patent of the United States, including any reissues and extensions thereof that may be obtained therefor, and the right, where such right can be legally exercised, in its own name to apply for and obtain Letters Patent, Inventor's Certificates, Utility Models and Designs, in countries foreign to the United States, including the full right to claim for any such application the benefits of the International Convention as fully and entirely as I could have done if the application had been in my name, and the entire interest in any Letters Patent, Inventor's Certificate, Utility Model or Design which may be granted on any such application in such foreign country; and we hereby authorize and request the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States whose duty it is to issue Letters Patent, Inventors Certificates, Utility Models or Designs, on applications as aforesaid, to issue any and all Letters Patent, Inventor's Certificates, Utility Models and Designs that may be granted for said invention to said UChicago Argonne, LLC, its successors and assigns.

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	Apr 21 2020 Subnamental	
Subramanian Sankaranarayanan Printed Name	Printed Date	Signature Debbie J. Krakowski
Debbie Krakowski Witness Printed Name	<u>4-21-2020</u> <u>Printed</u> <u>Date</u>	Witness Signature

PATENT REEL: 061416 FRAME: 0759

RECORDED: 10/13/2022