

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT7874650

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
BRYAN P. MALDONADO PUENTE	09/02/2022
BRIAN C. KAUL	09/02/2022
CATHERINE D. SCHUMAN	09/02/2022
STEVEN R. YOUNG	09/06/2022
RECEIVING PARTY DATA	
Name:	UT-BATTELLE, LLC
Street Address:	ONE BETHEL VALLEY ROAD
Internal Address:	5002, MS-6265
City:	OAK RIDGE
State/Country:	TENNESSEE
Postal Code:	37831-6265
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17888047
CORRESPONDENCE DATA	
Fax Number:	(865)574-0381
<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>	
Phone:	(865) 341-0393
Email:	vanceke@ornl.gov
Correspondent Name:	DAN VACAR
Address Line 1:	ONE BETHEL VALLEY ROAD
Address Line 2:	5000, MS-6265
Address Line 4:	OAK RIDGE, TENNESSEE 37831-6265
ATTORNEY DOCKET NUMBER:	4856.1 (UTB-PARTIAL)
NAME OF SUBMITTER:	KAREN E. VANCE
SIGNATURE:	/KE Vance/
DATE SIGNED:	03/30/2023
Total Attachments: 6	

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RECORDATION FORM COVER SHEET
PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

Bryan P. Maldonado Puente
Brian C. Kaul
Catherine D. Schuman
Steven R. Young

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) 09/06/2022

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Joint Research Agreement
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other _____

2. Name and address of receiving party(ies)

Name: UT-Battelle, LLC

Internal Address: 5002, MS-6265

Street Address: One Bethel Valley Road

City: Oak Ridge

State: TN

Country: USA Zip: 37831-6265

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application or patent number(s):

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

B. Patent No.(s)

17/888,047

Additional numbers attached? ☐ Yes ☒ No

5. Name and address to whom correspondence concerning document should be mailed:

Name: Dan Vacar

Internal Address: UT-Battelle, LLC

Street Address: One Bethel Valley Road

5002, MS-6265

City: Oak Ridge

State: TN Zip: 37831-6265

Phone Number: (865) 341-0393

Fax Number: (865) 574-0381

Email Address: vacardv@ornl.gov

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00

- ☐ Authorized to be charged by credit card
☒ Authorized to be charged to deposit account
☐ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers _____
Expiration Date _____

b. Deposit Account Number 13-1958

Authorized User Name Karen E. Vance

9. Signature:

/Dan Vacar/
Signature

03/30/2023
Date

Dan Vacar, Reg. No. 63579

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

6

ASSIGNMENT

WHEREAS, we the below-named inventors whose residences are as stated below, have an interest in an invention entitled:

Combustion Control Using Spiking Neural Networks

(hereinafter referred to as "Subject Invention") for which are described in United States Patent Application No. 17/888,047 filed on August 15, 2022, and

WHEREAS, UT-BATTELLE, LLC, a limited liability company of the State of Tennessee, having an office at One Bethel Valley Road, P. O. Box 2008, Oak Ridge, Tennessee 37831-6258, hereinafter referred to as "ASSIGNEE," is desirous of acquiring our entire right, title and interest of the undersigned in the same;

NOW, THEREFORE, in accordance with the terms of our employment agreement with ASSIGNEE and for good and valuable consideration, the receipt of which is hereby acknowledged, we hereby assign and transfer to ASSIGNEE and its successors in interest our entire right, title and interest in the Subject Invention to all rights of priority thereto pursuant to the International Convention for the Protection of Industrial Property, and in any Letters Patent on the Subject Invention that may be granted in the United States of America and in any and all foreign countries, including any and all Letters Patent that are divisions, reissues, continuations, substitutions or extensions of any Letters Patent or patent applications therefor on the Subject Invention.

We hereby authorize and request the Commissioner of the United States Patent and Trademark Office and the officials of all foreign countries to issue any and all of said Letters Patent, when granted, to the ASSIGNEE.

Further, we hereby agree to communicate to said ASSIGNEE or its representatives any facts known to us respecting said Subject Invention, to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitution, renewal and reissue applications, to execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, and to make all rightful oaths and generally do everything possible to aid said ASSIGNEE and its representatives to obtain and enforce proper protection for said Subject Invention in the United States of America and in any and all foreign countries.

We further agree that the terms, covenants and conditions of this assignment shall inure to the benefit of ASSIGNEE, its successors, assigns, and legal representatives, and shall be binding on us, our heirs, legal representatives, and assigns.

Name of Inventor: **Bryan P. Maldonado Puente**

Signature: 1 Bryan Maldonado 1 Date: 09/02/2022

Residence: 2132 Antelope Lane, Knoxville, Tennessee, 37932

Name of Inventor: **Brian C. Kaul**

Signature: / / Date: _____

Residence: 5715 Matlock Drive, Knoxville, Tennessee 37921

Name of Inventor: **Catherine D. Schuman**

Signature: / / Date: _____

Residence: 455 Executive Meadows Drive, Lenoir City, Tennessee 37771

Name of Inventor: **John Parker Mitchell**

Signature: / / Date: _____

Residence: _____

Name of Inventor: **Steven R. Young**

Signature: / / Date: _____

Residence: 7321 Chartwell Road, Knoxville, Tennessee 37931

Name of Inventor: **Bryan P. Maldonado Puente**

Signature: _____ / _____ / _____ Date: _____

Residence: 2132 Antelope Lane, Knoxville, Tennessee, 37932

Name of Inventor: Brian C. Kaul

Signature: / Basir Khan / Date: 9/2/2022

Residence: 5715 Matlock Drive, Knoxville, Tennessee 37921

Name of Inventor: **Catherine D. Schuman**

Signature: _____ / _____ / _____ Date: _____

Residence: 455 Executive Meadows Drive, Lenoir City, Tennessee 37771

Name of Inventor: **John Parker Mitchell**

Signature: _____ / _____ Date: _____

Residence: _____

Name of Inventor: **Steven R. Young**

Signature: _____ / _____ Date: _____

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Name of Inventor: **Brian C. Kaul**

Signature: _____ / _____ Date: _____

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Name of Inventor: **Catherine D. Schuman**

Signature: / Catherine Schuman / Date: 9/2/2022

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Signature: _____ / _____ Date: _____

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Signature: _____ / _____ Date: _____

Residence: 455 Executive Meadows Drive, Lenoir City, Tennessee 37771

Name of Inventor: **John Parker Mitchell**

Signature: _____ / _____ Date: _____

Residence: _____

Name of Inventor: **Steven R. Young**

Signature: Steven Young Digitally signed by Steven Young
Date: 2022.09.06 12:16:00 -04'00' / Date: 9/6/2022

Residence: 7321 Chartwell Road, Knoxville, Tennessee 37931