#### 504542542 09/12/2017

## PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
WARREN P. GRICE	05/09/2017
RAPHAEL C. POOSER	05/09/2017
PHANI TEJA KURUGANTI	05/09/2017
PHILIP G. EVANS	05/09/2017
MILJKO BOBREK	05/09/2017

#### RECEIVING PARTY DATA

Name:	UT-Battelle, LLC
Street Address:	One Bethel Valley Road
Internal Address:	4500N, MS-6258
City:	Oak Ridge
State/Country:	TENNESSEE
Postal Code:	37831-6258

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15583502

### **CORRESPONDENCE DATA**

Fax Number: (865)574-0381

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.

Phone: (865) 574-4179 Email: warfielde@ornl.gov COLIN L. CINI **Correspondent Name:** 

Address Line 1: ONE BETHEL VALLEY ROAD

Address Line 2: 4500N, MS-6258

Address Line 4: OAK RIDGE, TENNESSEE 37831-6258

ATTORNEY DOCKET NUMBER: 3150.1 UTB **ELIZABETH WARFIELD** NAME OF SUBMITTER: **SIGNATURE:** /Elizabeth Warfield/ **DATE SIGNED:** 09/12/2017

**PATENT REEL: 043553 FRAME: 0710** 504542542

# **Total Attachments: 3**

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PATENT REEL: 043553 FRAME: 0711

#### ASSIGNMENT

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

### Quantum-Authenticated Clock Signal

(hereinafter referred to as "Subject Invention") for which are described in United States Patent Application No. 15/583,502 filed on May 1, 2017, 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 any and 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.

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Name of Inventor:	Warren P. Grice
Signature: Man	Date: 5/9/2017
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Signature:	Date:
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Name of Inventor:	Didie C. Ferre
0.7	Philip G. Evans
Signature:	Date: 5/9/2017
Residence:	902 Morningside Drive, Knoxville, Tennessee 37915
Name of Inventor:	Miljko Bobrek
Signature:	Date;
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PATENT REEL: 043553 FRAME: 0714

**RECORDED: 09/12/2017**