

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3485359

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
DAVID ALEXANDER FORSYTH	06/24/2015
KEVIN KARSCH	07/08/2015
MANI GOLPARVAR-FARD	08/07/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE BOARD OF TRUSTEE OF THE UNIVERSITY OF ILLINOIS
<b>Street Address:</b>	506 SOUTH WRIGHT STREET
<b>City:</b>	URBANA
<b>State/Country:</b>	ILLINOIS
<b>Postal Code:</b>	61801
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14690104
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<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>	9735972500
<b>Email:</b>	chernandez@lowenstein.com
<b>Correspondent Name:</b>	PATENT DOCKET ADMINISTRATOR LOWENSTEIN S
<b>Address Line 1:</b>	65 LIVINGSTON AVENUE
<b>Address Line 4:</b>	ROSELAND, NEW JERSEY 07068
<b>ATTORNEY DOCKET NUMBER:</b>	30831.27 (L0026)
<b>NAME OF SUBMITTER:</b>	NATHAN O. GREENE
<b>SIGNATURE:</b>	/Nathan O. Greene/
<b>DATE SIGNED:</b>	08/17/2015
<b>Total Attachments: 5</b>	
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## **ASSIGNMENT**

WHEREAS, David Alexander Forsyth, Kevin Karsch, and Mani Golparvar-Fard, hereinafter called the "Assignors," have made the invention described in the United States patent application entitled 4D VIZUALIZATION OF BUILDING DESIGN AND CONSTRUCTION MODELING WITH PHOTOGRAPHS, which was filed as U.S. Application No. 14/690,104, on April 17, 2015, which claims priority to United States Provisional Application No. 61/938,861, entitled, 4D VIZUALIZATION OF BUILDING DESIGN AND CONSTRUCTION MODELS WITH PHOTOGRAPHS, filed April 24, 2014;

WHEREAS, The Board of Trustees of the University of Illinois, a body corporate and politic having a place of business at 352 Henry Administration Building, 506 South Wright Street, Urbana, Illinois 61801, hereinafter called the "Assignee," desires to acquire the entire right, title and interest in and to the invention and the patent application identified above, and all patents which may be obtained for said invention, as set forth below;

NOW, THEREFORE, in consideration of valuable and legally sufficient consideration, the receipt of which by the Assignors from the Assignee is hereby acknowledged, the Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer to the Assignee, the entire right, title and interest for the United States in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States; together with the entire right, title and interest in and to said invention and all patent applications and patents therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications and patents defined above; together with the right to recover all damages, including, but not limited to, a reasonable royalty, by reason of past, present, or future infringement or any other violation of patent or patent application rights; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignors hereby covenant and agree, for both the Assignors and the Assignors' legal representatives, that the Assignors will assist the Assignee in the prosecution of the patent application identified above; in the making and prosecution of any other patent applications that the Assignee may elect to make covering the invention identified above; in vesting in the Assignee like exclusive title in and to all such other patent applications and patents; and in the prosecution of any interference which may arise involving said invention, or any such patent application or patent; and that the Assignors will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Assignment.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignors have executed this agreement.

Dated: 24 JUNE 2015

David Alexander Forsyth

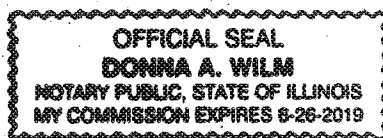
STATE OF Illinois )  
COUNTY OF Champaign ) ss.

I, Donna A. Wilm, a Notary Public in and for the County and State aforesaid, do hereby certify that David Alexander Forsyth, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this 24 day of June, 2015.

Donna A. Wilm  
Notary Public

My Commission Expires:  
6-26-2019



Dated: 7/8/2015

[Signature]  
Kevin Karsch

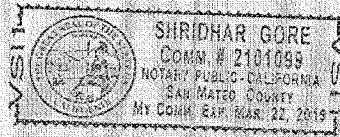
STATE OF California )  
COUNTY OF San Mateo ) ss.

I, Shridhar Gore a Notary Public in and for the County and State aforesaid, do hereby certify that Kevin Karsch, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this 8<sup>th</sup> day of July, 2015.

[Signature]  
Notary Public

My Commission Expires:  
03/22/2019



**ALL-PURPOSE ACKNOWLEDGMENT**

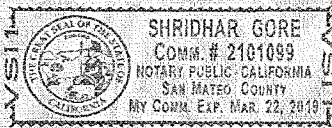
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this Certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }  
County of San Mateo } SS.

On 07/08/2015, before me, Shridhar Gore, Notary Public,  
DATE

personally appeared Kevin Karsch, who proved to me on the

basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/~~she~~/they executed the same in his/~~her~~/their authorized capacity(ies), and that by his/~~her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NOTARY'S SIGNATURE

PLACE NOTARY SEAL IN ABOVE SPACE

**OPTIONAL INFORMATION**

The information below is optional. However, it may prove valuable and could prevent fraudulent attachment of this form to an unauthorized document.

**CAPACITY CLAIMED BY SIGNER (PRINCIPAL)**

- INDIVIDUAL
- CORPORATE OFFICER \_\_\_\_\_ TITLE(S)
- PARTNER(S)
- ATTORNEY-IN-FACT
- GUARDIAN/CONSERVATOR
- SUBSCRIBING WITNESS
- OTHER: \_\_\_\_\_

**DESCRIPTION OF ATTACHED DOCUMENT**

Declaration (37CFR 1.63) for Utility or Design  
TITLE OR TYPE OF DOCUMENT  
Application using an Application Data sheet (37CFR 1.74)

NUMBER OF PAGES  
1

DATE OF DOCUMENT  
07/08/2015

App. # 14/690,104 Filed on April 17, 2015

**SIGNER (PRINCIPAL) IS REPRESENTING:**  
NAME OF PERSON(S) OR ENTITY(IES)

RIGHT THUMBPRINT OF SIGNER

OTHER



Dated: 8/7/2015

*Mani Golparvar-Fard*  
Mani Golparvar-Fard

STATE OF Illinois )  
COUNTY OF Champaign ) ss.

I, Tracy A. Hunter a Notary Public in and for the County and State aforesaid, do hereby certify that Mani Golparvar-Fard, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this 7<sup>th</sup> day of August, 2015.

*Tracy A. Hunter*  
Notary Public

My Commission Expires:  
July 29, 2018

