

<b>PATENT ASSIGNMENT COVER SHEET</b>
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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
INSANG YOO	09/28/2018
SEYEDMOHAMMADREZA FAGHIH IMANI	09/27/2018
TIMOTHY SLEASMAN	10/08/2018
DAVID R. SMITH	09/28/2018
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<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16138783
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<b>ATTORNEY DOCKET NUMBER:</b>	DUKE002
<b>NAME OF SUBMITTER:</b>	KORY D. CHRISTENSEN
<b>SIGNATURE:</b>	/Kory D. Christensen/
<b>DATE SIGNED:</b>	10/09/2018
<b>Total Attachments: 5</b>	

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ASSIGNMENT

We, Insang Yoo, Seyedmohammadreza Faghih Imani, Timothy Sleasman, and David R. Smith, have invented the inventions described in a United States Patent Application Serial No. 16/138,783, filed September 21, 2018, for ENHANCED MIMO COMMUNICATION SYSTEMS USING RECONFIGURABLE METASURFACE ANTENNAS AND METHODS OF USING SAME, in the United States Patent and Trademark Office.

The Assignee, Duke University, 2812 Erwin Rd., Ste 306, Duke Box #90083, Durham, NC 27705, desires to secure the entire right, title and interest therein.

For good and valuable consideration, the receipt and sufficiency of which we hereby acknowledge, WE HEREBY ASSIGN TO THE ASSIGNEE:

The entire right, title, and interest in the above-identified United States patent application and in all patents issuing thereon, any inventions described in said application, and in all divisions, continuations, continuations-in-part, reissues, or extensions of said application, and in all corresponding applications filed in countries foreign to the United States and all foreign patents issuing thereon.

The right to file foreign patent applications on said invention in its own name, wherever such right may be legally exercised, including the right to claim the benefits of the International Convention for such applications.

We hereby authorize and request the United States Commissioner of Patents and Trademarks, and such Patent Office officials in foreign countries as are duly authorized by their patent laws to issue patents, to issue any and all patents on said invention to the Assignee as the owner of the entire interest, for the sole use and benefit of the said Assignee, its successors, assigns and legal representatives.

We hereby agree, without further consideration and without expense to us, to sign all lawful papers and to perform all other lawful acts which the Assignee may request of me to make this Assignment fully effective, including, by way of example but not of limitation, the following:

Prompt execution of all original, divisional, substitute, reissue, and other United States and foreign patent applications on said invention, and all lawful documents requested by the Assignee to further the prosecution of any of such patent applications.

Cooperation to the best of our ability in the execution of all lawful documents, the production of evidence, nullification, reissue, extension, or infringement proceedings involving said invention.

This assignment and agreement shall be binding upon our heirs and legal representatives.

Insang Yoo.  
Insang Yoo

09-28-2018.  
DATE (YYYY-MM-DD)

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Seyedmohammadreza Faghii Imani

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DATE (YYYY-MM-DD)

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Timothy Sleasman

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DATE (YYYY-MM-DD)

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David R. Smith

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DATE (YYYY-MM-DD)

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Insang Yoo

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DATE (YYYY-MM-DD)

*M. F. L.*

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Seyedmohammadreza Faghih Imani

*2018-09-27*

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DATE (YYYY-MM-DD)

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Timothy Sleasman

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DATE (YYYY-MM-DD)

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David R. Smith

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Insang Yoo

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Seyedmohammadreza Faghih Imani

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DATE (YYYY-MM-DD)

  
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Timothy Sleasman

2018-10-08  
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DATE (YYYY-MM-DD)

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David R. Smith

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DATE (YYYY-MM-DD)

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Insang Yoo

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Timothy Sleasman

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DATE (YYYY-MM-DD)

David R. Smith  
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David R. Smith

9/28/2018  
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DATE (YYYY-MM-DD)