

**PATENT ASSIGNMENT**

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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>
Ahmed Gomaa Ahmed Radwan	11/02/2011
Atif Shamim	10/26/2011
Khaled N. Salama	11/02/2011
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	King Abdullah University of Science and Technology
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<b>State/Country:</b>	SAUDI ARABIA
<b>Postal Code:</b>	23955-6900
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	13288135
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<b>NAME OF SUBMITTER:</b>	Todd Deveau

OP \$40.00 13288135

**Total Attachments: 5**

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**ASSIGNMENT  
OF UTILITY PATENT APPLICATION**

WHEREAS, we, Ahmed Gomaa Ahmed Radwan, Atif Shamim and Khaled N. Salama, hereinafter referred to as ASSIGNORS, have invented certain new and useful improvements ("invention(s)") as described and set forth in the below-identified utility application for United States Letters Patent entitled:

**FRACTIONAL ORDER ELEMENT BASED IMPEDANCE MATCHING**

which was:

executed on even date herewith,  
 filed with the United States Patent and Trademark Office (USPTO) on \_\_\_\_\_,  
and assigned Serial No. \_\_\_\_\_, and  
 further described in U.S. Provisional application entitled "FRACTIONAL ORDER ELEMENTS BASED IMPEDANCE MATCHING NETWORKS AND METHODS FOR DESIGNING THE SAME", filed with the USPTO on November 11, 2010 and assigned Serial No. 61/412,687.

*Note: Only one of the first two checkboxes will be checked. The third checkbox will be checked, only if appropriate.*

WHEREAS, King Abdullah University of Science and Technology (KAUST), having a business at 4700 King Abdullah University of Science and Technology, Building 16, Room 4518, Thuwal, Kingdom of Saudi Arabia 23955-6900, hereinafter referred to as ASSIGNEE, is desirous of acquiring ASSIGNOR'S interest in said invention(s) and provisional application and in any and all U.S. and foreign patents which may be granted on the same.

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by ASSIGNORS, ASSIGNORS have sold, assigned and transferred and does hereby sell, assign and transfer unto ASSIGNEE, and ASSIGNEE'S successors and assigns, (a) the entire right, title and interest, for the United States of America, in and to said invention(s), said utility application, and said Provisional application and all the rights and privileges in any application and under any and all patents that may be granted in the U.S. for said inventions, including all corresponding provisional, continuation, continuation-in-part, divisional, reissue, and reexamination applications; and (b) the entire right, title and interest in and to said invention(s), said utility application, and said provisional application for all countries foreign to the U.S., including all rights of priority arising from them, and all the rights and privileges under any and all forms of protection, including patents, that may be granted in said countries foreign to the U.S. for them.

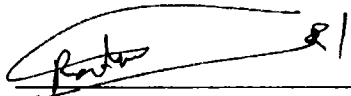
ASSIGNORS authorize ASSIGNEE to make application for such protection in its own name and maintain such protection in any and all countries foreign to the U.S., and to invoke and claim for any application for patent or other form of protection for said Inventions, without further authorization from ASSIGNORS, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

ASSIGNORS hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of ASSIGNEE to apply for patent or other form of protection for said Inventions, said utility application, or said provisional application and to claim the aforesaid benefit of the right of priority.

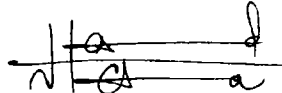
ASSIGNORS request that any and all patents for said inventions be issued to ASSIGNEE in the U.S. and to ASSIGNEE in all countries foreign to the U.S., or to such nominee as ASSIGNEE may designate.

ASSIGNORS covenant and agree that, when requested, ASSIGNORS shall, without charge to ASSIGNEE but at ASSIGNEE'S expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable, or convenient in connection with the patent applications, patents, or other forms of protection of said invention(s), and for the defense and protection thereof if challenged in the court of law.


ASSIGNORS authorize ASSIGNEE or its agents to insert, on ASSIGNORS' behalf, the filing date and/or serial number above pertaining to the utility application and/or the provisional application, if not known as of the date of execution of this document.

  
\_\_\_\_\_  
Ahmed Gomaa Ahmed Radwan

Date: 2 Nov. 2011

  
\_\_\_\_\_  
Witness Dr. Hammad M. Cheema

Date: 2 Nov. 2011

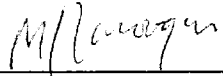
  
\_\_\_\_\_  
Witness Dr. Loic Marnat.

Date: 2 November 2011



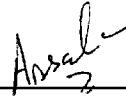
\_\_\_\_\_  
Atif Shamim

Date: 26<sup>th</sup> OCT 2011



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Witness MUHAMMAD FARHAD FAROOQUI

Date: 26 Oct 2011



\_\_\_\_\_  
Witness MUHAMMAD ARSALAN

Date: 26 OCT 2011

*Khaled Salama*

Khaled N. Salama

Date: Nov 2<sup>nd</sup> 2011

*M. Farooq*

Witness MUHAMMAD FAHAD FAROOQ

Date: Nov 2<sup>nd</sup> 2011

*Arsalan*

Witness MUHAMMAD ARSALAN

Date: Nov 2<sup>nd</sup> 2011