

## PATENT ASSIGNMENT COVER SHEET

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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>
LOUISIANA TECH UNIVERSITY RESEARCH FOUNDATION; A DIVISION OF LOUISIANA TECH UNIVERSITY FOUNDATION, INC.		09/24/2015
<b>RECEIVING PARTY DATA</b>		
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<b>PROPERTY NUMBERS Total: 1</b>		
<b>Property Type</b>	<b>Number</b>	
<b>Application Number:</b>	14746352	
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<b>ATTORNEY DOCKET NUMBER:</b>	39628/130245-02	
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<b>SIGNATURE:</b>	/lance a. foster/	
<b>DATE SIGNED:</b>	03/30/2016	
<b>Total Attachments: 9</b>		
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## **PATENT ASSIGNMENT**

This Patent Assignment ("Assignment") is entered into, with an effective date of September 24, 2015, between **LOUISIANA TECH RESEARCH CORPORATION** ("ASSIGNEE"), 900 Tech Drive, Ruston, LA 71270, **THE LOUISIANA TECH UNIVERSITY RESEARCH FOUNDATION, A DIVISION OF THE LOUISIANA TECH UNIVERSITY FOUNDATION, INC.** ("ASSIGNOR"), 900 Tech Drive, Ruston, LA 71270, and **LOUISIANA TECH UNIVERSITY**, 900 Tech Drive, Ruston, LA 71270.

Whereas ASSIGNOR is the owner of the patents and patent applications listed in Schedule A attached hereto ("Assigned Patents");

Whereas ASSIGNOR and ASSIGNEE believe that transferring title of the Assigned Patents to ASSIGNEE will further their mission of technology transfer in relation to Louisiana Tech University;

Therefore, for the consideration stated above, ASSIGNOR hereby sells, assigns, transfers and conveys to ASSIGNEE, and the successors, assigns and legal representatives of the ASSIGNEE, the entire right, title and interest, for all the United States and its territorial possessions and in all foreign countries, including all rights to claim priority, to the patents and patent applications listed in Schedule A, including the inventions which are the subject thereof. This assignment includes all patents to be obtained for said inventions and improvements thereof, by any non-provisional, continuation, continuations-in-part, division, renewal, substitute, re-issue or re-examination application thereof.

For clarity, this Assignment encompasses the patents and application in Schedule A regardless of whether the owner is identified as (i) Louisiana Tech University Research Foundation, A Division Of The Louisiana Tech University Foundation, Inc. or (ii) Louisiana Tech University Foundation, Inc.

To the extent that Louisiana Tech University has any ownership rights in the Assigned Patents, Louisiana Tech University hereby sells, assigns, transfers and conveys to ASSIGNEE the entire right, title and interest, for all the United States and its territorial possessions and in all foreign countries, including all rights to claim priority, to the patents and patent applications listed in Schedule A.

IN WITNESS WHEREOF, the below parties have executed this Assignment with the effective date referenced above.

**ASSIGNEE:**

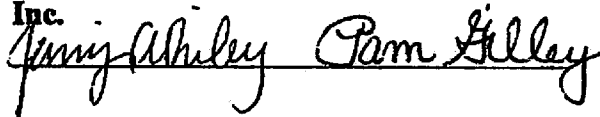
**Louisiana Tech Research Corporation**



Name: James Davison


**ASSIGNOR:**

**Louisiana Tech University Foundation,  
Inc.**



Name: Jennifer A. Piley Pam Gilley

**Louisiana Tech University**



Name: Leslie K. Guice

# SCHEDULE A

## Issued US Patents

ROI	Patent No	Title	Issue date
2005-13	8,064,159	Method and Apparatus to Relate Biometric Samples to Target FAR and FRR with predetermined Confidence Levels	6/23/2015
2007-06	8,000,768	Pipe Survey Method Method using UWB Signal	4/7/2015
2008-02 2011-04	8,952,706	Universal Impedance Probe for detection of side connections through thermoplastics, thermosetting, and cementitious liners	2/10/2015
2010-03	8,901,802	Piezoelectric Photovoltaic Micropower Generator and Method	12/2/2014
2011-26	8,885,631	Nanofilaments of Catalytic Materials for Chemical Process Improvements	11/25/2014
2010-20	8,873,033	Cured-In-Place-Pipe Liner Inspection System	10/28/2014
2006-03	8,764,938	Method and Manufacture of Smart Paper and Smart Wood Fibers	7/1/2014
2006-11 2006-13	8,738,452	Transmission Delay Based RFID Tag	5/27/2014
2008-24 2008-30	8,685,538	Stable Polyelectrolyte Coated Nanoparticles	4/1/2014
2011-26	8,629,189	Nanofilaments of Catalytic Materials for Chemical Process Improvements	1/14/2014
2006-13	8,600,118	Method and Apparatus to Relate Biometric Samples to Target FAR and FRR with predetermined Confidence Levels	12/3/2013
2011-13	8,582,735	Incinerator Fly Ash Geopolymer and Method	10/22/2013
2010-11	8,512,488	Geopolymer Mortar and Method	8/20/2013
2008-26	8,511,403	Steerable Ground Piercing Tools	8/20/2013
2009-09	8,507,058	Microreservoir with End Plugs for Controlled Release of Corrosion Inhibitor	8/13/2013
2008-18	8,489,635	Method and System of Identifying Users Based Upon Free Text Keystroke Patterns	7/16/2013
2002-04	8,473,532	Method and Apparatus for Automatic Organization for Computer files	6/25/2013
2007-26	8,441,265	Thermocooling of GMR Sensors	5/14/2013
2007-14	8,399,527	Bound Cobalt Nanowires for Fischer-Tropsch Synthesis	3/19/2013
2004-25	8,377,278	Electrokinetic Strength Enhancement of Concrete	2/18/2013
2007-06	8,350,570	Pipe Survey Method Using UWB Signal	1/8/2013

2005-03	8,348,131	Method for the Manufacture of Smart Paper and Smart Wood Microfibers	1/8/2013
2008-26	8,256,539	Steerable Ground Piercing Tools	9/4/2012
2003-28 2003-29 2004-04	8,190,248	Medical Devices for the Detection Prevention and/or Treatment of Neurological Disorders, and Methods Related Thereto	5/29/2012
2006-11 2006-12 2006-13 2006-14	8,179,231	Transmission Delay Based RFID Tag	5/15/2012
2009-19	8,173,578	A Bioherbicide and Method for Controlling Giant Salvinia	5/8/2012
2006-09	8,138,154	Hidden Markov Model Based User Authentication Using Keystroke Dynamics	3/13/2012
2007-03	8,127,357	Method to Detect SYN Flood Attack	2/28/2012
2007-10 2008-11	8,078,825	Electret Film Generator	12/13/2011
2005-13	7,988,818	Method and apparatus to relate biometric samples to target FAR and FRR with predetermined confidence levels	7/28/2011
2006-15	7,984,408	Detecting Hypocalcemia Using Bovine Nose Sweat	6/21/2011
2003-22	7,893,188	Multilayer Films, Coatings, and Microcapsules comprising polypeptides	2/22/2011
2007-03	7,865,954	Method to Detect Syn Flood Attack	1/4/2011
2004-09	7,842,182	Layer-by-layer Nanocoating for paper fabrication	11/30/2010
2004-19	7,811,478	Polymer-nanocrystal quantum dot composites and optoelectronic devices	10/12/2010
2005-13	7,808,170	Method and Apparatus for Choosing and Evaluating Sample Size for Biometric Training Process	10/5/2010
2007-02	7,792,770	Method to Identify Anomalous Data Using Cascaded K-means Clustering and an ID3 Decision Tree	9/7/2010
2008-21	7,748,451	On-Chip Microplasma Systems	8/29/2010
2000-10	7,730,088	Data Set Request Allocations to Computers	6/1/2010
2004-22	7,662,911	Polypeptide Films and Methods	2/18/2010
2005-22	7,652,261	Multichannel nanoparticle scintillation microdevice with integrated waveguides for radiation detection	1/28/2010
2003-04	7,620,818	System and Method for Classifying regions of keystroke density with neural networks	11/17/2009
2001-10 2003-22	7,550,657	Multi-layer films, coatings, and microcapsules comprising polypeptides	6/23/2009

2001-10 2003-22	7,544,770	Multi-layer films, coatings, and microcapsules comprising polypeptides	8/9/2009
2001-09	7,538,184	Method for Controlling Stability of Nano-fabricated polypeptide multi-layer films, coatings, and microcapsules	6/28/2009
2001-09	7,534,880	Nanofabricated Polypeptide Multi-layer films, coatings, and microcapsules	5/19/2009
2003-45 2004-01	7,440,193	Wide-Angle Variable Focal Length Lens System	10/21/2008
2001-09	7,411,038	Artificial Red Blood Cells	8/12/2008
2003-46	7,359,563	A Method to stabilize a moving image	4/15/2008
2003-45 2004-01	7,359,124	Wide-Angle Variable Focal Length Lens System	4/15/2008
2003-35	7,357,139	Stair-Adjustable Crutch	4/15/2008
2001-09	7,348,399	Nanofabricated Polypeptide Multilayer films, coatings, and microcapsules	3/26/2008
2001-10	7,321,022	Method for Controlling Stability of Nano-fabricated polypeptide multilayer films, coatings, and microcapsules	1/22/2008
2002-14	7,303,158	Generation and Usage of Microbubbles as a blood Oxygenator	12/4/2007
2000-10	7,191,178	Method for Allocation of Web Pages Using Neural Networks	3/13/2007
2000-12	7,134,082	Method and Apparatus for Individualizing and Updating a Directory of Computer Files	11/7/2006
2001-05	7,094,622	Polymer Based Tunneling Sensor	8/22/2006
1999-09	7,090,838	Bact NRRL B-30043 for controlling algae	8/15/2006
2002-09	7,090,783	Lithography-based patterning of L-b-L nanoassembled thin films	8/15/2006
2006-01	6,966,950	Method and Apparatus for Treating Underground Pipeline	11/22/2005
1999-01	6,713,408	Method of Producing Silica Microstructures from x-ray lithography of SOG Materials	3/30/2004
2006-01	6,514,346	Method and Apparatus for Inserting and Propelling a Coating Device Into and through Live Gas Pipeline	2/4/2003
1999-09	6,482,635	Method of Reducing Off-Flavor in Water or Aquatic Life forms Using Bact NRRL B-30043	11/19/2002
2000-06	6,482,553	Graphite Mask for X-ray or Deep X-ray Lithography	11/19/2002
1999-09	6,322,782	Bact NRRL B-30043 for controlling algae	11/27/2001
2000-08	6,274,534	Control of Kudzu with a fungal pathogen derived from <i>Myrothecium Verrucaria</i>	8/14/2001

2006-01	6,180,169	Method for Internally Coating Live Gas Pipe Joints or Other Discontinuities	1/30/2001
	6,024,713	Leg Support Apparatus	2/15/2000
1998-02	5,952,264	Control of Crabgrass with a Fungal Pathogen	9/14/1999
2006-01	5,913,977	Apparatus and Method for Internally Coating Live Gas Pipe Joints or Other Discontinuities	6/22/1999
1998-02	5,747,029	Control of weeds with a fungal pathogen derived from <i>M. Verrucaria</i>	5/5/1998
1988-01	5,739,019	Method of Isolating and Propagating Microorganisms and Viruses	4/14/1988
1994-01	5,635,444	Control of Crabgrass with a fungal pathogen	6/3/1997
1988-01	4,853,771	Robotic Vision System	8/1/1989
2012-02	9,103,654	Nanowire-GMR Thin Film Magnetic Sensors	8/11/2015
2011-26	9,108,858	Bound Cobalt Nanowires for Fischer-Tropsch Synthesis	8/18/2015



# **Pending US Applications**

<b>ROI</b>	<b>Serial No.</b>	<b>title</b>	<b>filing date</b>
2014-15	62/214,331	Non-Invasive Fluorescence-based oxygen sensor for monitoring cell responses	9/4/2015
2012-14	62/133,012	Drill head integrated multi-sensor platform for real-time warning of cross-bore	3/13/2015
2013-19	62/107,613	Thermoelectric Method for Performing ELISA	1/26/2015
2011-27	62/053,946	Polymers Doped with Graphene via Scalable Process for use in electromagnetic shielding	9/23/2014
2014-12	62/035,492	Methods and Devices for 3D Printing or Additive Manufacturing of Bioactive Medical Devices	8/10/2014
2014-10	62/027,521	Biomarkers for Susceptibility to SUDEP	7/22/2014
2013-06	PCT/US14/23010	System and Method for Identifying a focal areas of Abnormal Network Interactions in the brain	3/11/2014
2005-13	14/069,980	A Method and Apparatus to Relate Biometric Samples to Target FAR and FRR with predetermined confidence levels	11/1/2013
2011-09	14/525,882	Capillary Action Heat Exchanger	10/28/2014
2010-20	14/496,449	Cured-In-Place-Pipe Liner Inspection System	9/25/2014
2013-08	14/469,687	Geopolymer with Nanoparticle retardant and method	8/27/2014
2013-05	14/314,408	Nanostructured Optical biosensor and method	6/25/2014
2012-17	14/209,754	Cast-in-Place Fiber Technology	3/13/2014
	PCT/US2014/026325	Cast-in-Place Fiber Technology	3/13/2014
2012-16	14/204,213	Optically and Thermally responsive nanohybrid materials	3/11/2014
2011-26	14/151,560	Nanofilaments of catalytic materials for chemical process improvements	1/9/2014
2010-18	14/124,567	System and Method for Ground Penetrating Radar Communication Using Antenna Crosstalk	4/16/2014
2008-25	13/500,722	Method & Apparatus for detecting buried objects	11/19/2012
2005-13	14/069,980	A Method and Apparatus to Relate Biometric Samples to Target FAR and FRR with predetermined confidence levels	11/1/2013
2008-18	13/915,301	Method and System of Identifying Users Based Upon Free Text Keystroke Patterns	6/11/2013
2011-16	13/891,862	Methods for Generating 3-dimensional cellular spheroids	5/10/2013
2005-13	13/111,919	A Method and Apparatus to Relate Biometric	5/19/2011

		Samples to Target FAR and FRR with predetermined confidence levels	
2010-19	PCT/US11/55899 13/886,133	A Rotating Housing Turbine	10/12/2011 4/19/2013
2010-02	13/801,100	GMR Nanowire Sensors	3/13/2013
2011-05	13/777,856	Semi-continuous metal composites for optoelectronic devices	2/26/2013
2004-25	13/747,904	Electrokinetic Strength Enhancement of Concrete	1/23/2013
2011-15	13/629,164	Sensor Fusion Framework Using multiple sensors to access buried structures	9/27/2012
2008-25	13/500,722 PCT/US2009/059626	Method and Apparatus for Detecting Buried Objects	11/19/2012 10/6/2009
2008-26	13/602,884	Steerable Ground Piercing Tool	9/4/2012
2003-28 2003-29 2004-04	13/482,500	Medical Devices for the Detection, Prevention and/or Treatment of Neurological Disorders, and Methods Related Thereto	5/29/2012
2011-22	13/481,494	Method for Geopolymer Concrete	5/25/2012
2011-07	13/469,454	Beam Steerable UWB Radar	5/11/2012
2010-05 2010-08 2010-09	13/446,775	Ceramic Nanotube composites with sustained drug release capability for implants, bone repair and regeneration	4/13/2012
2010-18	PCT/2011/39738	System and Method for ground Penetrating radar communication using antenna crosstalk	6/9/2011
2007-01	12/669,395	Therapeutic Stable Nanoparticles	1/15/2010
2004-27	11/734,155	Electrokinetic Corrosion Treatment of Concrete	4/11/2007
2001-09 2001-10 2002-12 2002-13	11/372,901 PCT/US2004/39209	Method for Designing Polypeptides for the Nanofabrication of Thin Film, Coatings, and Microcapsules by Electrostatic Layer-by-Layer Self Assembly	3/10/2006
2013-06	14/203,742	Method for Localizing the Epileptogenic Focus from Interictal Brain Signal Processing	3/11/2014
2012-02	14/746,352	Nanowire-GMR Thin Film Magnetic Sensors	6/22/2015
2014	14/804,658	Biomarkers of Susceptibility to SUDEP	7/21/2015
2011-22	14/819,080	Method for Dry Cast Geopolymer Concrete	8/5/2015
2014-12	14/822,275 PCT/US2015/44467	Methods and Devices for 3D Printing or Additive Manufacturing of Bioactive Medical Devices	8/10/2015
2013-08	PCT/US2015/46302	Geopolymer with Nanoparticle Retardant and Method	8/21/2015

# Foreign Patent Applications

ROI	Country	Title	Appl/Serial Number	Filing Date/ Nationalization
2010-11	People's Republic of China	Geopolymer Mortar and Method	CN 201180061097.1	6/19/2013
2008-02 2011-04	Canada	Universal Impedance Probe for detection of side connections through thermoplastics, thermosetting, and cementitious liners	CA 2772848	3/28/2012
2010-11	Canada	Geopolymer Mortar and Method	CA 2817668	12/19/2011
2010-19	Canada	A Rotating Housing Turbine	CA 2815495	10/12/2011
2010-18	Japan	System and Method for Ground Penetrating Radar Communication Using Antenna Crosstalk	JP 2014-514441	12/9/2013
2010-18	People's Republic of China	System and Method for Ground Penetrating Radar Communication Using Antenna Crosstalk	CN 20118007151.5	12/9/2013
2010-18	Republic of Korea	System and Method for Ground Penetrating Radar Communication Using Antenna Crosstalk	KR 10-2014-7000368	1/7/2014
2008-25	Republic of Korea	Method and Apparatus for detecting buried objects	KR 10-2012-7011639	5/4/2012
2008-25	Canada	Method and Apparatus for detecting buried objects	CA 2,776,808	10/6/2009
2008-25	Japan	Method and Apparatus for detecting buried objects	JP 2012-533124	6/5/2012

# Foreign Patents

ROI	Country	Title	Issued Patent Number	Issue Date
2010-18	Great Britain	System and Method for Ground Penetrating Radar Communication Using Antenna Crosstalk	GB 2504640	7/8/2013
2011-13	Canada	Incinerator Fly Ash Geopolymer and Method	CA 2787807	10/28/2014
2008-25	Great Britain	Method and Apparatus for detecting buried objects	GB 2486375	8/6/2014
2004-22	European	Polypeptide Films and Methods	EP 1957050	1/1/2014
2001-10	Canadian	Method for designing polypeptides for the nanofabrication of thin films, coatings, and microcapsules by electrostatic layer-by-layer assembly	CA 2587643	9/24/2013
2001-10	People's Republic of China	Polypeptide Multilayer films	CN 101421416	6/12/2013
2004-22	Japan	Polypeptide Films and Methods	JP 5189493	2/1/2013
2001-10	Israel	Thin film comprising plurality of layers of polypeptides	IL 183215	12/25/2012
2001-10	Mexico	Method for designing polypeptides for the nanofabrication of thin films, coatings, and microcapsules by electrostatic layer-by-layer assembly	MX 304879	11/5/2012
2004-22	People's Republic of China	Method for designing polypeptides for the nanofabrication of thin films, coatings, and microcapsules by electrostatic layer-by-layer assembly	CN 101309670	2/9/2011
2004-22	Australia	Polypeptide Films and Methods	AU 2006/346,493	2/2/2012
2004-22	Mexico	Polypeptide Films and Methods	MX 282,658	1/7/2011

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