

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6700135

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
QUEEN'S UNIVERSITY AT KINGSTON	04/28/2015
RECEIVING PARTY DATA	
Name:	SPARQ SYSTEMS INC.
Street Address:	945 PRINCESS STREET
City:	KINGSTON, ON
State/Country:	CANADA
Postal Code:	K7L 3N6
PROPERTY NUMBERS Total: 1	
Property Type	Number
Patent Number:	8467200
CORRESPONDENCE DATA	
Fax Number:	(613)533-6853
<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>	
Phone:	613-533-2342
Email:	nancy.mcintyre@queensu.ca
Correspondent Name:	NANCY MCINTYRE
Address Line 1:	QUEEN'S UNIVERSITY
Address Line 4:	KINGSTON, ON, CANADA K7L 3N6
ATTORNEY DOCKET NUMBER:	2009-075
NAME OF SUBMITTER:	NANCY MCINTYRE
SIGNATURE:	/Nancy McIntyre/
DATE SIGNED:	05/10/2021
Total Attachments: 12	
source=ConfirmatoryAssignment_SPARQ#page1.tif	
source=ConfirmatoryAssignment_SPARQ#page2.tif	
source=ConfirmatoryAssignment_SPARQ#page3.tif	
source=ConfirmatoryAssignment_SPARQ#page4.tif	
source=ConfirmatoryAssignment_SPARQ#page5.tif	
source=ConfirmatoryAssignment_SPARQ#page6.tif	

source=ConfirmatoryAssignment_SPARQ#page7.tif
source=ConfirmatoryAssignment_SPARQ#page8.tif
source=ConfirmatoryAssignment_SPARQ#page9.tif
source=ConfirmatoryAssignment_SPARQ#page10.tif
source=ConfirmatoryAssignment_SPARQ#page11.tif
source=ConfirmatoryAssignment_SPARQ#page12.tif

CONFIRMATORY PATENT ASSIGNMENT

This Confirmatory Patent Assignment is made from **Queen's University at Kingston**, a non-profit educational corporation incorporated by Royal Charter from Queen Victoria in 1841, whose full post office address is Kingston, Ontario, K7L 3N6, Canada ("Seller") to **SPARQ Systems Inc.**, whose former full post office address was 1625 Biosciences Complex, Kingston, Ontario, K7L 3N6, Canada, and whose current full post office address is 945 Princess Street, Kingston, Ontario, K7L 3N6, Canada ("Buyer"). The SPARQ Systems Inc. identified above is the same entity as the SPARQ Systems, Inc. named in the Patent Assignment dated 18 July 2013, a copy of which is attached hereto.

Seller desired and desires to assign to Buyer all of Seller's right, title and interest in and to the inventions described in the patents and patent applications listed in Schedule A of the Patent Assignment dated 18 July 2013 and as updated on 23 April 2015 and attached hereto, together with the entire right, title, and interest in said patents and patent applications and any and all patent rights therein, including without limitation any and all applicable assignments of patents or patent applications, continuations, continuations in-part, divisions, patents of addition, renewals, extensions, foreign counterparts, utility models, re-examinations, and applications for reissuance of patents (such as patents, patent applications, and other rights being referred to herein collectively as "the Patents").

In consideration of Buyer's one dollar (\$1.00) and other good and valuable consideration, receipt and sufficiency of which is hereby acknowledged by Seller, Seller hereby confirms the Patent Assignment dated 18 July 2013 and the transfer, grant, sale, and otherwise conveyance to Buyer all of Seller's worldwide right, title and interest in and to the Patents, including (a) the right to priority under the International Convention for Industrial Property, and (b) all common law rights therein, applications to register therefor, and all claims for damages by reason of past infringements of the Patents with the right to sue for and collect the same for Buyer's own use and benefit, and for the use and on behalf of Buyer's successors, assigns, and other legal representatives. Seller authorizes the Commissioner of Patents of the United States of America, and the empowered officials of all other governments, to issue or transfer all said Patents to Buyer, as assignee thereof, or otherwise as Buyer may direct.

Dated: Apr. 28/15

Queen's University at Kingston

By: _____

Name: Steven N. Liss

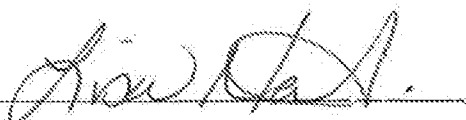
Title: Vice-Principal (Research)

NOTARIAL CERTIFICATE

On this 28th day of April 2015, before me, the undersigned Notary Public in and for the Province of Ontario, Canada, personally came Steven N. Liss, whom I know to be the person who signed the attached Confirmatory Patent Assignment (the "Assignment") purporting to grant the Assignment on behalf of Queen's University at Kingston (the "Corporation"). The undersigned Notary Public certifies that the authority of such person to grant the Assignment on behalf of the Corporation is evidenced by documents and records presented to me, that I have carefully examined said documents and records and that all formal requirements of Ontario and Canadian law have been fulfilled to authorize the execution of the Assignment by the signatory thereof. The documents and records which I examined, and which constitute direct and positive evidence of the legal authority of the signatory to the Assignment, are:

1. The Charter of Queen's University at Kingston, issued by Queen Victoria in 1841 and amendment thereto.
2. By-law No. 95-41 of the Corporation, which provides that contracts, documents, or instruments in writing requiring the signature of the Corporation may be signed on behalf of the Corporation by any one person who holds the office of Principal or Vice-Principal, and all contracts, documents, or instruments in writing so signed shall be binding upon the Corporation without further authorization or formality.
3. Resolution of the Board of Directors of the Corporation passed on September 1, 2010 in the City of Kingston, in the Province of Ontario, appointing Steven N. Liss as Vice-Principal, Research.

In witness whereof, I have set my hand and seal of office in the City of Kingston, in the Province of Ontario (Canada), this 28th day of April 2015.



Name: Lisa Newton

A Notary Public in and for the Province of Ontario

SCHEDULE A
(Updated 23 April 2015)

Patent and Patent Applications

Tech. ID No.:	Country	Patent Application No.	Status	Filing Date
Title: Photovoltaic Cell Inverter				
2008-028-02CA	Canada	2,665,007	Pending	20 Feb 2009
Title: Inverter for a Distributed Power Generator				
2008-028-03US	United States	12/709,166	Patent No. 8,670,249	19 Feb 2010
2008-028-04CA	Canada	2,693,737	Pending	19 Feb 2010
2008-028-05US	United States	14/173,439	Pending	5 Feb 2014
Title: Distributed Power Generation Interface				
2009-073-02US	United States	12/884,822	Patent No. 8,688,287	17 Sep 2010
2009-073-04EP	Europe	10816533.3	Pending	17 Sep 2010
2009-073-05CN	China	201080048420.7	Pending	17 Sep 2010
2009-073-06AU	Australia	2010295163	Pending	17 Sep 2010
2009-073-07CA	Canada	2,774,401	Pending	17 Sep 2010
2009-073-08IN	India	3384/CHENP/2012	Pending	17 Sep 2010
2009-073-09MX	Mexico	MX/a/2012/003225	Patent No. 319373	17 Sep 2010
2009-073-10IL	Israel	218676	Pending	17 Sep 2010
2009-073-11JP	Japan	2012-529079	Pending	17 Sep 2010
2009-073-12BR	Brazil	BR1120120060244	Pending	17 Sep 2010
2009-073-13US	United States	14/225,622	Pending	26 Mar 2014

Tech. ID No.:	Country	Patent Application No.	Status	Filing Date
Title: Controller for a Resonant Power Converter				
2010-008-02US	United States	13/030,737	Patent No. 8,638,571	18 Feb 2011
2010-008-04CA	Canada	2,789,381	Pending	18 Feb 2011
Title: Maximum Power Point Tracking for a Power Generator				
2009-074-03US	United States	13/094,207	Patent No. 8,612,058	26 Apr 2011
2009-074-04CA	Canada	2,796,987	Pending	26 Apr 2011
2009-074-05EP	Europe	11774227.0	Pending	26 Apr 2011
2009-074-06CN	China	201180021389.2	Pending	26 Apr 2011
2009-074-07IN	India	9162/CHENP/2012	Pending	26 Apr 2011
2009-074-08BR	Brazil	BR1120120275712	Pending	26 Apr 2011
2009-074-09MX	Mexico	MX/a/2012/012365	Patent No. 313192	26 Apr 2011
2009-074-10AU	Australia	2011245033	Pending	26 Apr 2011
2009-074-11IL	Israel	222734	Pending	26 Apr 2011
2009-074-12JP	Japan	2013-506423	Pending	26 Apr 2011

Tech. ID No.:	Country	Patent Application No.	Status	Filing Date
Title: Power Converter for a Power Generator				
2009-075-04US	United States	13/094,260	Patent No. 8,467,200	26 Apr 2011
2009-075-05CA	Canada	2,796,985	Pending	26 Apr 2011
2009-075-06EP	Europe	11774226.2	Pending	26 Apr 2011
2009-075-07CN	China	201180025536.3	Pending	26 Apr 2011
2009-075-08IN	India	9155/CHENP/2012	Pending	26 Apr 2011
2009-075-09BR	Brazil	BR1120120275682	Pending	26 Apr 2011
2009-075-10MX	Mexico	MX/a/2012/012366	Patent No. 317804	26 Apr 2011
2009-075-11AU	Australia	2011245032	Pending	26 Apr 2011
2009-075-12IL	Israel	222735	Pending	26 Apr 2011
2009-075-13JP	Japan	2013-506422	Pending	26 Apr 2011
Title: Digital EMI Compensation				
2010-042-02PCT	WIPO	PCT/CA2012/000374	Pending	19 April 2012
2010-042-03US	United States	14/112,708	Pending	14 Nov 2013
Title: Digital Controller for a Power Converter				
2012-011-01US	United States	61/701,003	Pending	14 Sep 2012
2012-011-02CA	Canada	2,789,748	Pending	14 Sep 2012
2012-011-03US	United States	14/026,676	Pending	13 Sep 2013
Title: DC-AC Inverter with Soft-Switching				
2011-071-01US	United States	61/798,480	Pending	15 Mar 2013
2011-071-02CA	Canada	2,809,592	Pending	15 Mar 2013
2011-071-03US	United States	14/205,650	Pending	12 Mar 2014

Tech. ID No.:	Country	Patent Application No.	Status	Filing Date
Title: Power Control				
2012-010-01US	United States	61/790,537	Pending	15 Mar 2013
2012-010-02CA	Canada	2,814,527	Pending	2 May 2013
2012-010-03US	United States	14/205,687	Pending	12 Mar 2014
Title: A Providential Novel Islanding Detection Scheme for Grid-connected Distributed Power Generation Systems				
2011-048	N/A	N/A	Invention Disclosure Dated 7 Jul 2011	N/A
Title: Accurate and Robust Measurement of DC				
2012-008	N/A	N/A	Invention Disclosure Dated 21 Mar 2012	N/A
Title: Digital Dual-Loop Frequency and Pulse Width Modulation for Resonant Converters				
Title: Current Sense-Less Self-Sustained Oscillation Control for Resonant Converters				
Title: Digital Controller Architecture for a Microinverter				
Title: Achieving Zero in Rush-Current at AC in a Microinverter				

PATENT ASSIGNMENT

This Patent Assignment is made from Queen's University at Kingston, a non-profit educational corporation incorporated by Royal Charter from Queen Victoria in 1841, whose full post office address is Kingston, Ontario, K7L 3N6, Canada ("Seller"), to SPARQ Systems, Inc., whose full post office address is 1625 Biosciences Complex, Kingston, Ontario, K7L 3N6, Canada ("Buyer").

Seller desires to assign to Buyer all of Seller's right, title, and interest in and to the inventions described in the patents and patent applications listed on Schedule A together with the entire right, title, and interest in said patents and patent applications and any and all patent rights therein, including without limitation any and all applicable assignments of patents or patent applications, continuations, continuations in-part, divisions, patents of addition, renewals, extensions, foreign counterparts, utility models, reexaminations, and applications for reissuance of patents (such patents, patent applications and other rights being referred to herein collectively as, the "Patents").

In consideration of Buyer's one dollar (\$1.00) and other good and valuable consideration, receipt and sufficiency of which is hereby acknowledged by Seller, Seller does hereby assign, transfer, grant, sell, and otherwise convey to Buyer all of Seller's worldwide right, title, and interest in and to the Patents, including (a) the right to priority under the International Convention for Industrial Property, and (b) all common law rights therein, applications to register therefor, and all claims for damages by reason of past infringements of the Patents with the right to sue for and collect the same for its own use and benefit, and for the use and on behalf of its successors, assigns and other legal representatives. Seller authorizes the Commissioner of Patents and Trademarks of the United States of America, and the empowered officials of all other governments, to issue or transfer all said Patents to Buyer, as assignee thereof, or otherwise as Buyer may direct.

Dated: 18-Jul-13

QUEEN'S UNIVERSITY AT KINGSTON

By: _____

Name: Steven N. Liss

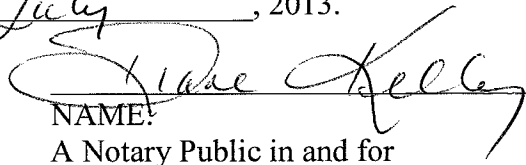
Title: Vice Principal (Research)

NOTARIAL CERTIFICATE

On this 18th day of July, 2013, before me, the undersigned Notary Public in and for the Province of Ontario, Canada, personally came Steven N. Liss, whom I know to be the person who signed the attached document (the "Patent Assignment") purporting to grant an Assignment on behalf of Queen's University at Kingston (the "Corporation"). The undersigned Notary Public certifies that the authority of such person to grant an Assignment on behalf of the Corporation is evidenced by documents and records presented to me, that I have carefully examined said documents and records and that all formal requirements of Ontario and Canadian law have been fulfilled to authorize the execution of the Assignment by the signatory thereof. The documents and records which I examined, and which constitute direct and positive evidence of the legal authority of the signatory to the Assignment, are:

1. The Charter of Queen's University at Kingston, issued by Queen Victoria in 1841 and amendment thereto.
2. By-law No. 95-41 of the Corporation, which provides that contracts, documents or instruments in writing requiring the signature of the Corporation may be signed on behalf of the Corporation by any one person who holds the office of Principal or Vice-Principal, and all contracts, documents or instruments in writing so signed shall be binding upon the Corporation without further authorization or formality.
3. Resolution of the Board of Directors of the Corporation passed on September 1, 2010, in the City of Kingston, in the Province of Ontario, appointing Steven N. Liss as Vice-Principal, Research.

In witness whereof, I have set my hand and seal of office in the City of Kingston, in the Province of Ontario (Canada), this 18th day of July, 2013.



NAME:
A Notary Public in and for
the Province of Ontario

20f6

SCHEDULE A

Patents and Patent Applications

Tech. ID No.:	Country	Patent Application No.	Status	Filing Date
Title: Photovoltaic Cell Inverter				
2008-028-02CA	Canada	2,665,007	Pending	20 Feb 2009
Title: Inverter for a Distributed Power Generator				
2008-028-03US	United States	12/709,166	Pending	19 Feb 2010
2008-028-04CA	Canada	2,693,737	Pending	19 Feb 2010
Title: Distributed Power Generation Interface				
2009-073-02US	United States	12/884,822	Pending	17 Sep 2010
2009-073-04EP	Europe	10816533.3	Pending	17 Sep 2010
2009-073-05CN	China	201080048420.7	Pending	17 Sep 2010
2009-073-06AU	Australia	2010295163	Pending	17 Sep 2010
2009-073-07CA	Canada	2,774,401	Pending	17 Sep 2010
2009-073-08IN	India	3384/CHENP/2012	Pending	17 Sep 2010
2009-073-09MX	Mexico	MX/a/2012/003225	Pending	17 Sep 2010
2009-073-10IL	Israel	218676	Pending	17 Sep 2010
2009-073-11JP	Japan	2012-529079	Pending	17 Sep 2010
2009-073-12BR	Brazil	BR1120120060244	Pending	17 Sep 2010

3 of 6

Tech. ID No.:	Country	Patent Application No.	Status	Filing Date
Title: Controller for a Resonant Power Converter				
2010-008-02US	United States	13/030,737	Pending	18 Feb 2011
2010-008-04CA	Canada	2,789,381	Pending	18 Feb 2011
Title: Maximum Power Point Tracking for a Power Generator				
2009-074-03US	United States	13/094,207	Pending	26 Apr 2011
2009-074-04CA	Canada	2,796,987	Pending	26 Apr 2011
2009-074-05EP	Europe	11774227.0	Pending	26 Apr 2011
2009-074-06CN	China	201180021389.2	Pending	26 Apr 2011
2009-074-07IN	India	9162/CHENP/2012	Pending	26 Apr 2011
2009-074-08BR	Brazil	BR1120120275712	Pending	26 Apr 2011
2009-074-09MX	Mexico	MX/a/2012/012365	Pending	26 Apr 2011
2009-074-10AU	Australia	2011245033	Pending	26 Apr 2011
2009-074-11IL	Israel	222734	Pending	26 Apr 2011
2009-074-12JP	Japan	2013-506423	Pending	26 Apr 2011

4 of 6

Tech. ID No.:	Country	Patent Application No.	Status	Filing Date
Title: Power Converter for a Power Generator				
2009-075-04US	United States	13/094,260	Patent No. 8,467,200	26 Apr 2011
2009-075-05CA	Canada	2,796,985	Pending	26 Apr 2011
2009-075-06EP	Europe	11774226.2	Pending	26 Apr 2011
2009-075-07CN	China	201180025536.3	Pending	26 Apr 2011
2009-075-08IN	India	9155/CHENP/2012	Pending	26 Apr 2011
2009-075-09BR	Brazil	BR1120120275682	Pending	26 Apr 2011
2009-075-10MX	Mexico	MX/a/2012/012366	Pending	26 Apr 2011
2009-075-11AU	Australia	2011245032	Pending	26 Apr 2011
2009-075-12IL	Israel	222735	Pending	26 Apr 2011
2009-075-13JP	Japan	2013-506422	Pending	26 Apr 2011
Title: Digital EMI Compensation				
2010-042-02PCT	WIPO	PCT/CA2012/000374	Pending	19 April 2012
Title: Digital Controller for a Power Converter				
2012-011-01US	United States	61/701,003	Pending	14 Sep 2012
2012-011-02CA	Canada	2,789,748	Pending	14 Sep 2012
Title: DC-AC Inverter with Soft-Switching				
2011-071-01US	United States	61/798,480	Pending	15 Mar 2013
2011-071-02CA	Canada	2,809,592	Pending	15 Mar 2013

5 of 6

Tech. ID No.:	Country	Patent Application No.	Status	Filing Date
Title: Power Control				
2012-010-01US	United States	61/790,537	Pending	15 Mar 2013
2012-010-02CA	Canada	N/A	N/A	2 May 2013
Title: A Providential Novel Islanding Detection Scheme for Grid-connected Distributed Power Generation Systems				
2011-048	N/A	N/A	Invention Disclosure Dated 7 Jul 2011	N/A
Title: Accurate and Robust Measurement of DC				
2012-008	N/A	N/A	Invention Disclosure Dated 21 Mar 2012	N/A
Title: Digital dual-loop frequency and pulse width modulation for resonant converters.				
Title: Current sense-less self-sustained oscillation control for resonant converters.				
Title: Digital controller architecture for a microinverter				
Title: Achieving zero in rush-current at AC in a microinverter				

6 of 6