

7/13/05

Form PTO-1595 (Rev. 06/04)  
OMB No. 0651-0027 (exp. 6/30/2005)

Docket No. MP0618  
U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

09-15-2005



103081454

**RECORDATION F  
PATENT**

To the Director of the U.S. Patent and Trademark Office: Please

Address(es) below.

**1. Name of conveying party(ies)/Execution Date(s):**

Sakti Pada RANA (Deceased) by;

Kuong Hoo, on behalf of Marvell Asia Pte, Ltd./Legal Representative of Sakti Pada RANA (Deceased)

Execution Date(s) August 10, 2005

Additional name(s) of conveying party(ies) attached?  Yes  No

Name: Marvell Asia Pte, Ltd.

Street Address: 151 Lorong Chuan #02-05

City: New Tech Park

State: \_\_\_\_\_

Country: Singapore Zip: 556741

**3. Nature of conveyance:**

- Assignment  Merger
- Security Agreement  Change of Name
- Government Interest Assignment
- Executive Order 9424, Confirmatory License
- Other \_\_\_\_\_

Additional name(s) & address(es) attached?  Yes  No

**4. Application or patent number(s):**

This document is being filed together with a new application.

A. Patent Application No.(s): 11/179,593

B. Patent No.(s) \_\_\_\_\_

Title: **SYSTEM AND PROCESS FOR UTILIZING BACK ELECTROMOTIVE FORCE IN DISK DRIVES**

Additional numbers attached?  Yes  No

**5. Name and address to whom correspondence concerning document should be mailed:**

Name: Richard S. Meyer, Esq.

Internal Address: \_\_\_\_\_

Street Address: 1750 Tysons Boulevard, Suite 1800

City: McLean

State: VA Zip: 22102

Phone Number: 703.712.5427

Fax Number: 703.712.5240

Email Address: rmeyer@mcquirewoods.com

**6. Total number of applications and patents involved:**

1

**7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00**

- Authorized to be charged by credit card
- Authorized to be charged to deposit account
- Enclosed
- None required (government interest not affecting title)

**8. Payment Information**

a. Credit Card Last 4 Numbers \_\_\_\_\_  
Expiration Date \_\_\_\_\_

b. Deposit Account Number \_\_\_\_\_  
Authorized User Name \_\_\_\_\_

**9. Signature:**

Signature

September 8, 2005

Date

Richard S. Meyer, Reg. No. 32,541

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 11

Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to:  
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1450, Alexandria, V.A. 22313-1450

\\COM\537406

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(40.00 DP)

**PATENT**  
**REEL: 016970 FRAME: 0782**

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned,

Sakti Pada Rana

Vishnu Kumar

Siew Yong Chui

who have created a certain invention for which an application for United States Letters Patent was filed on July 13, 2005 and accorded serial number 11/179,593, and entitled:

System and Process for Utilizing Back Electromotive Force in Disk Drives

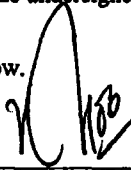
Do hereby sell, assign and transfer to Marvell Asia Pte, Ltd. (Registration No. 199702379M), a corporation of Singapore, having a place of business at 151 Lorong Chuan #02-05 New Tech Park Singapore 556741, its successors, assigns, and legal representatives, the full and exclusive right to said invention and said application and to any and all inventions described in said application for the United States, its territorial possessions and all foreign countries, and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States, its territorial possessions and all foreign countries; and in and to any and all continuations-in-part, continuations, divisions, substitutes, reissues, extensions thereof, and all other applications for Letters Patent relating thereto which have been or shall be filed in the United States, its territorial possessions and/or any foreign countries, and all rights, together with all priority rights, under any of the international conventions, unions, agreements, acts, and treaties, including all future conventions, unions, agreements, acts, and treaties;

Agree that Marvell Asia Pte, Ltd. (Registration No. 199702379M), hereinafter referred to as Assignee, may apply for and receive Letters Patent for said invention and said inventions, hereinafter referred to as said invention, in its own name, in the United States, its territorial possessions, and all foreign countries; and that, when requested to carry out in good faith the intent and purpose of this assignment, at the expense of said Assignee, its successors, assigns and legal representatives, the undersigned will execute all continuations-in-part, continuations, divisions, substitutes, reissues, extensions thereof, execute all rightful oaths, assignments, powers of attorney and other papers, testify in any legal or quasi legal proceedings; communicate to said Assignee, its successors, assigns or legal representatives all facts known to the undersigned relating to said invention and the history thereof; and generally do everything possible which said Assignee, its successors, assigns, or legal representatives shall consider desirable for aiding in securing, maintaining and enforcing proper patent protection for said invention and for vesting title to said invention and all applications for patents on said invention in said Assignee, its successors, assigns, or legal representatives; and

Covenant with said Assignee, its successors, assigns, or legal representatives that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

IN TESTIMONY WHEREOF I have hereunto set MY signature on the date indicated below.

Date: 8/10/05  
Month/Day/Year

  
\_\_\_\_\_  
Kuong Hoo on behalf of Marvell Asia Pte, Ltd.  
Legal Representative for Sakti Pada Rana (Deceased)

Date: \_\_\_\_\_  
Month/Day/Year

\_\_\_\_\_  
Vishnu Kumar

Date: \_\_\_\_\_  
Month/Day/Year

\_\_\_\_\_  
Siew Yong Chui

\\COM527464.1

**CONFIDENTIAL INFORMATION AND INVENTION ASSIGNMENT  
AGREEMENT**

As a condition of my employment with Marvell Asia Pte Ltd, its subsidiaries, affiliates, successors or assigns (together the "Company"), and in consideration of my employment with the Company and my receipt of the compensation now and hereafter paid to me by the Company, I agree to the following:

1. Confidential Information.

- (a) Company Information. I agree at all times during the term of my employment and thereafter, to hold in strictest confidence, and not to use, except for the benefit of the Company, or to disclose to any person, firm or corporation without written authorization of the Board of Directors of the Company, any Confidential Information of the Company. I understand that "Confidential Information" means any Company proprietary information, technical data, trade secrets or know-how, including, but not limited to, research, product plans, products, services, customer lists and customers (including, but not limited to, customers of the Company on whom I called or with whom I became acquainted during the term of my employment), markets, software, developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, marketing, finances or other business information disclosed to me by the Company either directly or indirectly in writing, orally or by drawings or observation of parts or equipment. I further understand that Confidential Information does not include any of the foregoing items which has become publicly known and made generally available through no wrongful act of mine or of others who were under confidentiality obligations as to the item or items involved.
- (b) Former Employer Information. I agree that I will not, during my employment with the Company, improperly use or disclose any proprietary information or trade secrets of any former or concurrent employer or other person or entity and that I will not bring onto the premises of the Company any unpublished document or proprietary information belonging to any such employer, person or entity unless consented to in writing by such employer, person or entity.
- (c) Third Party Information. I recognize that the Company has received and in the future will receive from third parties their confidential or proprietary information subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. I agree to hold all such confidential or proprietary information in the strictest confidence and not to disclose it to any person, firm or corporation or to use it except as necessary in carrying out my work for the Company consistent with the Company's agreement with such third party.

2. Inventions

- (a) Inventions Retained and Licensed. I have attached hereto, as Exhibit A, a list describing all inventions, original works of authorship, developments, improvements, and trade secrets which were made by me prior to my employment with the Company (collectively referred to as "Prior Inventions"), which belong to me, which relate to the Company's proposed business, products or research and development, and which are not assigned to the Company hereunder; or, if no such list is attached, I represent that there are no such Prior Inventions. If in the course of my employment with the Company, I incorporate into a Company product, process or machine a Prior Invention owned by me or in which I have an interest, the Company is hereby granted and shall have a nonexclusive, royalty-free, irrevocable, perpetual, worldwide license to make, have made, modify, use and sell such Prior Inventions as part of or in connection with such product, process or machine.
- (b) Assignment of Inventions. I agree that I will promptly make full written disclosure to the Company, will hold in trust for the sole right and benefit of the Company, and hereby assign to the Company, or its designee, all my right, title, and interest in and to any and all copyrightable works, inventions, original works of authorship, developments, concepts, improvements or trade secrets, and all and any intellectual property (including but not limited to "future copyright" as defined in the Singapore Copyright Act) whether or not patentable or registrable under copyright or similar laws, which I may solely or jointly conceive or develop or reduce to practice, or cause to be conceived or developed or reduced to practice, during the period of time I am in the employ of the Company (collectively referred to as "Inventions"), except as provided in Section 3(c) below. I further acknowledge that all original works of authorship which are made by me (solely or jointly with others) within the scope of and during the period of my employment with the Company and which are protectable by copyright are deemed to be "works produced, made or developed pursuant to a "contract of service" under the Singapore Copyright Act.
- (c) Inventions Assigned to the United States. I agree to assign to the United States government all my right, title, and interest in and to any and all Inventions whenever such full title is required to be in the United States by a contract between the Company and the United States or any of its agencies.
- (d) Maintenance of Records. I agree to keep and maintain adequate and current written records of all Inventions made by me (solely or jointly with others) during the term of my employment with the Company. The records will be in the form of notes, sketches, drawings, and any other format that may be specified by the Company. The records will be available to and remain the sole property of the Company at all times. I further agree that I will not directly or indirectly publish, except with the Company's prior written consent any information in relation to the Inventions and that upon termination of this Agreement (and without prejudice to the generality of Section 5 below), I shall promptly hand over to the Company all drawings, tables, notes, correspondence and other records in my possession, power or control relating to the Inventions, and shall not retain any such document or records.

- (e) Patent and Copyright Registrations. I agree to assist the Company, or its designee, at the Company's expense, in every proper way to secure the Company's rights in the Inventions and any copyrights, patents, mask work rights or other intellectual property rights relating thereto in any and all countries, including the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments and all other instruments which the Company shall deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company, its successors, assigns and nominees the sole and exclusive rights, title and interest in and to such Inventions, and any copyrights, patents, mask work rights or other intellectual property rights relating thereto. I further agree that my obligation to execute or cause to be executed, when it is in my power to do so, any such instrument or papers shall continue after the termination of this Agreement. If the Company is unable because of my mental or physical incapacity or for any other reason to secure my signature to apply for or to pursue any application for any United States or foreign patents or copyright registrations covering Inventions or original works of authorship assigned to the Company as above, then I hereby irrevocably designate and appoint the Company and its duly authorized officers and agents as my agent and attorney in fact, to act for and in my behalf and stead to execute and file any such applications and to do all other lawfully permitted acts to further the prosecution and issuance of letters, patent or copyright registrations thereon with the same legal force and effect as if executed by me.

I further agree to lend such assistance, at the Company's request and expense, in connection with any opposition to, or intervention regarding any application for patents or any other intellectual property rights relating to the Inventions or other proceedings relating to such intellectual property rights or application therefor.

3. Conflicting Employment. I agree that, during the term of my employment with the Company, I will not engage in any other employment, occupation, consulting or other business activity, nor will I engage in any other activities, that conflict with my obligations to the Company.
4. Returning Company Documents. I agree that, at the time of leaving the employ of the Company, I will deliver to the Company (and will not keep in my possession, recreate or deliver to anyone else) any and all devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, materials, equipment, other documents or property, or reproductions of any aforementioned items developed by me pursuant to my employment with the Company or otherwise belonging to the Company, its successors or assigns. In the event of the termination of my employment, I agree to sign and deliver the "Termination Certification" attached hereto as Exhibit B.
5. Notification to New Employer. In the event that I leave the employ of the Company, I hereby grant consent to notification by the Company to my new employer about my rights and obligations under this Agreement.

- (a) I shall not during and at any time for the period of one (1) year after termination of my employment either on my own account or in conjunction with or on behalf of any other person, firm or company solicit or entice away or attempt to solicit or entice away from the Company the custom of any person, firm, company or organisation who shall at any time within one (1) year prior to the date of termination of your employment (the "Termination Date") have been a customer or client or in the habit of dealing with the Company.
- (b) I shall not during and at any time for the period of one (1) year after the Termination Date either on my own account or in conjunction with or on behalf of any person, firm or company carry on or be engaged, concerned or interested, directly or indirectly within such countries that the Company or its related corporations carry on business whether as shareholder, director, employee, partner, agent or otherwise in carrying on any business carried on by the Company within one (1) year prior to the Termination Date.
- (c) I shall not either for my own account or as representative or agent for any third party, persuade, induce, encourage or procure any employee employed by the Company to become employed by or interested directly or indirectly in any manner in any business which is in competition with the business carried on by the Company or terminate his employment with the Company.
- (d) I acknowledge that:
  - i Each of the foregoing subsections constitutes an entirely separate and independent restriction on me; and
  - ii The duration, extent and application of each of the restrictions is no greater than is necessary for the protection of the proprietary interests of the Company.
- (e) Notwithstanding the above, I shall be entitled to enter into employment with any other related corporation of the Company.
- (f) Each undertaking and agreement contained in this Section 6 shall be read and construed independently of the other undertakings and agreements therein contained so that if one or more should be held to be invalid as an unreasonable restraint of trade or for any other reason whatsoever then the remaining undertakings and agreements shall be valid to the extent that they are held not to be so invalid.
- (g) While the undertakings and agreements in this Section 6 are considered by the Company and me to be reasonable in all circumstances, if one or more should be held to be invalid as an unreasonable restraint of trade or for any other reason whatsoever but would have been held valid if part of the wording thereof had been deleted or the period thereof reduced or the range of activities or area dealt

with reduced in scope, the said undertakings and agreements shall apply with such modifications as may be necessary to make them valid and effective.

7. Solicitation of Employees. I agree that for a period of twelve (12) months immediately following the termination of my relationship with the Company for any reason, whether with or without cause, I shall not either directly or indirectly solicit, induce, recruit or encourage any of the Company's employees to leave their employment, or take away such employees, or attempt to solicit, induce, recruit, encourage or take away employees of the Company, either for myself or for any other person or entity.
8. Conflict of Interest Guidelines. I agree to diligently adhere to the Conflict of Interest Guidelines attached as Exhibit C hereto.
9. Representations. I agree to execute any proper oath or verify any proper document required to carry out the terms of this Agreement. I represent that my performance of all the terms of this Agreement will not breach any agreement to keep in confidence proprietary information acquired by me in confidence or in trust prior to my employment by the Company, I have not entered into, and I agree I will not enter into, any oral or written agreement in conflict herewith.
10. Arbitration and Equitable Relief.
  - (a) Arbitration. Subject to Section 10(b) below, any dispute arising out of or in connection with this Agreement, including any question regarding its existence, validity or termination, shall be referred to and finally resolved by arbitration in Singapore in accordance with the Arbitration Rules of Singapore International Arbitration Centre for the time being in force which rules are deemed to be incorporated by reference to this Section.
  - (b) Equitable Remedies. I agree that it would be impossible or inadequate to measure and calculate the Company's damages from any breach of the covenants set forth in Sections 2, 3, and 5 herein. Accordingly, I agree that if I breach any of such Sections, the Company will have available, in addition to any other right or remedy available, the right to obtain an injunction from a court of competent jurisdiction restraining such breach or threatened breach and to specific performance of any such provision of this Agreement. I further agree that no bond or other security shall be required in obtaining such equitable relief and I hereby consent to the issuance of such injunction and to the ordering of specific performance.
11. General Provisions.
  - (a) Governing Law: Consent to Personal Jurisdiction. This Agreement will be governed by the laws of Singapore.
  - (b) Entire Agreement. This Agreement sets forth the entire agreement and understanding between the Company and me relating to the subject matter

herein and merges all prior discussions between us. No modification of or amendment to this Agreement, nor any waiver of any rights under this agreement, will be effective unless in writing signed by the Company and me. Any subsequent change or changes in my duties, salary or compensation will not affect the validity or scope of this Agreement.

- (c) Severability. If one or more of the provisions in this Agreement are held to be invalid or unenforceable by any court of competent jurisdiction, then such invalidity and unenforceability shall not affect the remaining provisions of this Agreement which will continue in full force and effect.
- (d) Successors and Assigns. This Agreement will be binding upon my heirs, executors, administrators and other legal representatives and will be for the benefit of the Company, its successors, and its assigns.

Date: 12 July 2001

Sakti Pada Rana  
Signature

SAKTI PADA RANA  
Name of Employee (typed or printed)

Witness

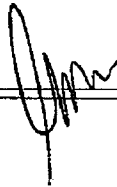




EXHIBIT A

MARVELL ASIA PTE LTD

LIST OF PRIOR INVENTIONS  
AND ORIGINAL WORKS OF AUTHORSHIP

Title	Date	Identifying Number or Brief Description
① Method of BEMF Detection for brushless spindle motor with Sample and Hold Technique.	August 1996	This is a patent. This novel technique used in BEMF detection in PWM environment.
② Speed dependent Parkkip of actuator head.	May 1995	Dependent upon the motor speed Parkkip time is determined. It is also a patent.
③ High speed Voltage clamp with controllable threshold voltage.	Jan 2001	This is for project ASIC from inductive flyback. Patent pending.

No Inventions or improvements

Additional Sheets Attached

Signature of Employee: Sakti Pada Rana

Printed Name of Employee: SAKTI PADA RANA

Date: 12 July 2007