



To the Honorable Commissioner of Patents and Trademarks 102150009

attached original documents or copy thereof.

1 Name of conveying party(ies):

Chung-Ju Hsieh
Hsi-Wen Liao
Yi-Ming Lin

6-26-02

2 Name and address of receiving party(ies):

Taiwan Semiconductor Manufacturing Co
No. 121 Park Avenue 3
Science-Based Industrial Park
Hsin-Chu, Taiwan, R.O.C.

JC973 U.S. PTO
10/180653
06/26/02

3 Nature of conveyance:

- Assignment Merger
 - Security Agreement Change of Name
 - Other:
- Execution Date: May 13, 2002

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

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

10180653

If this document is being filed together with a new application, the execution date of the application is: 05-13-02

A. Patent Application No(s).

B. Patent No(s)

Additional numbers attached? Yes No

5 Name and address of party to whom correspondence concerning document should be mailed:

RANDY W. TUNG
Tung & Associates
838 W. Long Lake Road
Suite 120
Bloomfield Hills Michigan 48302

07/03/2002 MAILED1 0000017 10180653
02 FC:581 40.00 DP

6 Total number of applications and patents involved:

1

7 Total fee (37 CFR 3.41)

\$40.00

- Enclosed
- Authorized to charge credit card (w/filing fee)

8 Deposit Account Number: 50-0484

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9 Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Randy W. Tung
Name of Person Signing
Registration No. 31,311

Signature

June 26, 2002
Date

Total number of pages including cover sheet, attachments, and document : 3

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231

ASSIGNMENT

WHEREAS, we, CHUNG-JU HSIEH, HSI-WEN LIAO and YI-MING LIN, have invented certain improvements in

Z-AXIS MONITORING APPARATUS FOR ROBOT BLADE

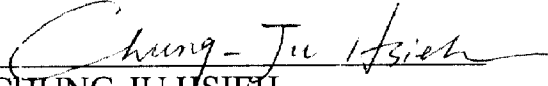
for which we are about to make application for Letters Patent of the United States; and


WHEREAS, TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. of No. 121, Park Avenue 3, Science-Based Industrial Park, Hsin-Chu, Taiwan, R.O.C, is desirous of acquiring the entire right, title and interest in and to said invention;

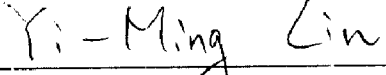
NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, we, CHUNG-JU HSIEH, HSI-WEN LIAO and YI-MING LIN, by these presents, do hereby sell, assign and transfer unto the said corporation and its assigns, for the territory of the United States of America and all foreign countries, the entire right, title and interest, including all priority rights under the International Convention associated with each country of the Union, in and to said invention as described in the patent application executed by us on the 13th day of May, 2002, preparatory to obtaining Letters Patent of the United States thereon, and in and to said application and any Letters Patent that may be granted in pursuance of said application and any divisional, continuation or continuation-in-part application thereof, and in and to any reissue of any such patent, and in and

to any patent applications which may be filed on said invention in countries foreign to the United States and any Letters Patent granted thereon.

We further authorize said corporation to apply for foreign patents on said invention in its own name or through its designees, including subsidiaries, related companies or assignees, under the International Convention or otherwise, and we further agree to execute all papers, including those required for the United States and foreign applications, and to perform such other proper acts as said corporation or its designees the rights herein assigned.


CHUNG-JU HSIEH


HSI-WEN LIAO


YI-MING LIN

TUNG & ASSOCIATES
838 W. Long Lake Road
Suite 120
Bloomfield Hills, Michigan 48302