

## PATENT ASSIGNMENT

Electronic Version v1.1

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| SUBMISSION TYPE:   | NEW ASSIGNMENT                                 |
| NATURE OF CONVEYANCE:  | ASSIGNMENT                                     |
| CONVEYING PARTY DATA   |  |
| Name   | Execution Date                                 |
| Mohammad K. Ibrahim  | 07/01/2006                                     |
| RECEIVING PARTY DATA   |  |
| Name:  | King Fahd University of Petroleum and Minerals |
| Street Address:  | Building 15                                    |
| City:  | Dhahran  |
| State/Country:   | SAUDI ARABIA                                   |
| Postal Code:   | 31261  |
| PROPERTY NUMBERS Total: 1  |  |
| Property Type  | Number   |
| Application Number:  | 12044606                                       |
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| NAME OF SUBMITTER:   | David E. Dougherty                             |
| Total Attachments: 1<br>source=Assignment#page1.tif                                  |  |

OP \$40.00 12044606

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PATENT  
REEL: 021148 FRAME: 0246

**ASSIGNMENT**WHEREAS, I (we), **Mohammad K. Ibrahim**

whose post office address(es) appear below, hereinafter referred to as ASSIGNOR, is (are) the owner(s) of certain new and useful improvements in

**XZ-ELLIPTIC CURVE CRYPTOGRAPHY WITH SECRET KEY EMBEDDING**

(Hereinafter referred to as the INVENTION) for which an application for United States Letters Patent was

☐ executed on even date herewith☐ executed on:☐ filed on:

Serial No.:

☐ established by PCT International Patent Application No.:WHEREAS, **King Fahd University of Petroleum and Minerals**whose post office address is **Dhahran 31261, Saudi Arabia**


hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to the same in the United States and throughout the world;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I (we), ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said INVENTION and application throughout the United States of America, including any and all United States Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application; and the entire right, title and interest in and to the said INVENTION throughout the world, including the right to apply for patents and inventor certificates in respect thereof and to claim priority pursuant to rights accorded ASSIGNOR under the terms of the Paris International Convention and all other available international conventions and treaties; and the entire right, title and interest in and to any and all patents, patents of addition, utility models, patents of importation, revalidation patents and inventor certificates which may be granted throughout the world in respect of said INVENTION.

ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) or inventor certificate(s) in the United States and in foreign countries for said INVENTION, including additional documents that may be required to affirm the rights of ASSIGNEE is and to said INVENTION, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE's expense, to identify and communicate to ASSIGNEE at ASSIGNEE's request documents and information concerning the INVENTION that are within ASSIGNOR's possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent encompassed within the terms of this instrument. ASSIGNOR's obligations under this instrument shall extend to ASSIGNOR's heirs, executors, administrators and other legal representatives.

ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent referred to above to ASSIGNEE, as the ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE's sole use and behoof; and for the use and behoof of ASSIGNEE's legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.

ASSIGNOR authorizes any member of the firm of **Dennison, Schultz, Dougherty & MacDonald** to insert or complete any information in this document needed to effect its recordal in the U.S. Patent and Trademark Office.

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| Assignor Name <b>Mohammad K. Ibrahim</b>   | Address <b>297 London Rd</b>   |
| Where Signed <b>Leicester, UK</b>  | <b>Leicester LE2 3ND</b>   |
| Date <b>1 July 2006</b>  | Signature <b>MIC IBRAHIM</b>  |
| ss. (Notarization preferred <u>but not required</u> )  |  |
| Before me personally appeared said _____ And acknowledged this instrument to be his (her) free act and deed this _____ day of _____, 2005. |  |
| Notary Public  |  |
| My Commission Expires:   |  |