PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JITHRA ADIKARI	01/07/2020

RECEIVING PARTY DATA

Name:	SYNOPSYS, INC.	
Street Address:	690 EAST MIDDLEFIELD ROAD	
City:	MOUNTAIN VIEW	
State/Country:	CALIFORNIA	
Postal Code:	94043	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16436652

CORRESPONDENCE DATA

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using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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ATTORNEY DOCKET NUMBER:	063787/533056 (032910US)	
NAME OF SUBMITTER:	ARDESHIR TABIBI	
SIGNATURE:	/ARDESHIR TABIBI/	
DATE SIGNED:	03/09/2020	

Total Attachments: 2

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PATENT REEL: 052051 FRAME: 0911 505956748

ASSIGNMENT

WHEREAS, Jithra Adikari, residing at Ottawa, Canada hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified patent application(s):

Title of Invention:

EFFICIENT CALCULATION OF ED25519/448

SIGNATURE VERIFICATION IN AN ENCRYPTION

DEVICE

U.S. Application No.: 16/436,652

Filing Date:

June 10, 2019

WHEREAS, Synopsys, Inc., a corporation incorporated under and pursuant to the laws of California, and having its principal place of business at 690 East Middlefield Road, Mountain View, CA 94043 hereinafter referred to as "Assignee," is desirous of acquiring all of Assignors' right, title, and interest in and to said invention, the right to file applications on said invention, and the right, title and interest in and to any applications, including provisional applications, for Letters Patent of the United States or other countries claiming priority to said applications, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefore and thereon;

NOW, THEREFORE, for good and valuable consideration, receipt of which are hereby acknowledged by Assignors, Assignors have assigned, transferred and set over, and by these presents does assign, transfer and set over unto Assignee, and Assignee's successors, legal representatives, and assigns, all of Assignors' right, title and interest in and to the abovementioned invention and application, the right to file applications on said invention, and the right, title and interest in and to any such applications, including provisional applications, and any applications claiming priority from said applications for Letters Patent of the United States or other countries (including patent, utility model and industrial designs), and in and to any Letters Patent or Patents of the United States of America and all foreign countries that have been or may be granted therefor and thereon, and in and to any and all divisions, renewals, substitutions, conversions, continuations, and continuations-in-part of said applications, and reissues, prolongations and extensions of said Letters Patent or Patents, and all rights under the Paris Convention for the Protection of Industrial Property, including the right to claim priority. the same to be held and enjoyed by Assignee, for its own use and behalf and the use and behalf of Assignee's successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by Assignors had this Assignment not been made;

AND for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives, and assigns, that Assignor shall, whenever counsel of Assignee, or the counsel of its successors, legal representatives, and assigns, advises that any proceeding in connection with said invention or said applications for Letters Patent or

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Patents, or any proceeding in connection with Letters Patent or Patents for said invention in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, continuation-in-part, substitution or conversion of any applications for Letters Patent or Patents, or any reissue, prolongation or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of Letters Patent or Patents for said invention, without charge to Assignee, its successors, legal representatives, and assigns, but at the cost and expense of Assignee, its successors, legal representatives, and assigns;

AND Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent or Patents of the United States to Assignee as the assignee of said invention and the Letters Patent or Patents issued and to be issued thereon for the use and behalf of Assignee, its successors, legal representatives, and assigns;

AND the undersigned hereby grant(s) an authorized representative of Assignee the power to insert in this Assignment the application number and filing date and any further identification that may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

IN TESTIMONY WHEREOF, Assignors have signed their name on the dates indicated.

January 7, 2020

Date

Jithra Adikari

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RECORDED: 03/09/2020