#### 506606803 04/13/2021

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6653609

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SUSHIL SAKHARE	02/22/2020
KEVIN GARELLO	02/24/2020
MOHIT GUPTA	03/19/2020
MANU KOMALAN PERUMKUNNIL	04/23/2020

#### **RECEIVING PARTY DATA**

Name:	IMEC VZW
Street Address:	KAPELDREEF 75
City:	LEUVEN
State/Country:	BELGIUM
Postal Code:	3001
Name:	KATHOLIEKE UNIVERSITEIT LEUVEN
Street Address:	KU LEUVEN R&D, WAAISTRAAT 6 - BOX 5105
City:	LEUVEN
State/Country:	BELGIUM
Postal Code:	3000

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16716024

#### **CORRESPONDENCE DATA**

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

**Phone:** 9497600404

**Email:** efiling@knobbe.com

Correspondent Name: KNOBBE, MARTENS, OLSON & BEAR, LLP

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ATTORNEY DOCKET NUMBER: | IMEC1091.001AUS

NAME OF SUBMITTER: KYU MIN

PATENT REEL: 055903 FRAME: 0543

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SIGNATURE:	/Kyu Min/		
<b>DATE SIGNED:</b> 04/13/2021			
This document serves as an Oath/Declaration (37 CFR 1.63).			
Total Attachments: 6			
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# **COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e))**

Application Data Sheet filed previously or concurrently

Docket No.: IMEC1091.001AUS Page 1 of 3

**Title:** SPIN ORBIT TORQUE MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICE **Inventors:** Sushil Sakhare, Kevin Garello, Mohit Gupta, and Manu Komalan Perumkunnil

#### Declaration

This Declaration is directed to U.S. or International Application No. **16/716,024**, filed December 16, 2019 and incorporating any amendments made thereto prior to the signature date of this Declaration.

As a named inventor, I declare that:

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both.

I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

#### Assignment from Inventors

WHEREAS, above-identified inventors (individual(s) hereinafter "ASSIGNOR") invented certain new and useful improvements, technology, inventions, developments, ideas, ornamental designs, or discoveries related to SPIN ORBIT TORQUE MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICE (collectively hereinafter referred to as the "Work") for which an application for Letters Patent in the United States (identified above) has been filed or prepared for filing with the United States Patent and Trademark Office (hereinafter the "Application"), and ASSIGNOR desires to assign or confirm assignment of the Work and the Application to the below identified Assignee.

AND WHEREAS, **IMEC vzw**, with its principal place of business at **Kapeldreef 75**, **3001 Leuven**, **Belgium** (hereinafter the "ASSIGNEE"), desires to acquire or confirm ownership of the entire right, title, and interest in and to the Application and the Work.

AND WHEREAS, **Katholieke Universiteit Leuven**, with its principal place of business at **KU LEUVEN R&D**, **Waaistraat 6 - box 5105**, **3000 Leuven**, **Belgium** (hereinafter the "ASSIGNEE"), desires to acquire or confirm ownership of the entire right, title, and interest in and to the Application and the Work.

NOW, THEREFORE, for good and valuable consideration of which receipt is hereby acknowledged, ASSIGNOR hereby acknowledges that ASSIGNOR has sold, assigned, transferred, and set over, and by these presents does hereby sell, assign, transfer, and set over, unto said ASSIGNEE, **its** successors, legal representatives, and assigns, the entire right, title, and interest throughout the world in and to the Application and the Work, including: all provisional applications relating to the Work and the Application; all nonprovisional applications claiming priority to aforementioned provisional(s) and/or the Application, including, all divisions, continuations, continuations-in-part, and reissues, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof; and all rights of priority under International Conventions and any related Letters Patent which may hereafter be granted or filed in any country or countries foreign to the United States, all extensions, renewals, and reissues thereof.

ASSIGNOR hereby authorizes and requests the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on

### COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e))

Application Data Sheet filed previously or concurrently

Docket No.: IMEC1091.001AUS Page 2 of 3

Title: SPIN ORBIT TORQUE MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICE Inventors: Sushil Sakhare, Kevin Garello, Mohit Gupta, and Manu Komalan Perumkunnil

applications as aforesaid, to issue all related Letters Patent to the ASSIGNEE, its successors, legal representatives, and assigns.

AND ASSIGNOR DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.

AND ASSIGNOR DOES HEREBY covenant and agree that ASSIGNOR will: communicate to said ASSIGNEE, its successors, legal representatives, and assigns any facts known to ASSIGNOR respecting the Work; testify in any legal proceeding; assist in the preparation of any other Patent Property relating to the Application and the Work or any improvements made thereto; sign/execute all lawful papers; authorize the filing of, execute, and make all rightful oaths and/or declarations in connection with the Application and the Work including any improvements made thereto, any patent applications filed therefrom, and any continuing application filed from any of the aforementioned applications; and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives, and assigns, to obtain and enforce proper patent protection for the Work in all countries.

· · · · · · · · · · · · · · · · · · ·	ntor: Sushil Sakhare	, remarkable	, ides	Pinto	22/02/2020
Signature:	Witnessed by:			t. 18 8	- 100 mm
W	Vitness Name (printed):	LUGA	HATTIĆ_		
Legal Name of Inve	ntor: Kevin Garello			ing and the second	
Signature:		:		Date:	· · · · · · · · · · · · · · · · · · ·
	Witnessed by:				

# COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e)) Application Data Sheet filed previously or concurrently

Docket No.: IMEC1091.001AUS					
Title: SPIN ORBIT TORQUE MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICE					
Inventors: Sushil Sakhare, Kevin Garello, Mohit Gupta, and Manu Komalan Perumkunnil					
Legal Name of Inventor: Mohit Gupta					
Signature:	)20				
Witnessed by:					
Witness Name (printed): Prerna Gupta					
Legal Name of Inventor: Manu Komalan Perumkunnil					
Signature: Date:					
Witnessed by:					
Witness Name (printed):					

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#### COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e))

Application Data Sheet filed previously or concurrently

Docket No.: IMEC1091.001AUS Page 1 of 3

Title: SPIN ORBIT TORQUE MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICE Inventors: Sushil Sakhare, Kevin Garello, Mohit Gupta, and Manu Komalan Perumkunnil

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I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

#### Assignment from Inventors

WHEREAS, above-identified inventors (individual(s) hereinafter "ASSIGNOR") invented certain new and useful improvements, technology, inventions, developments, ideas, ornamental designs, or discoveries related to SPIN ORBIT TORQUE MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICE (collectively hereinafter referred to as the "Work") for which an application for Letters Patent in the United States (identified above) has been filed or prepared for filing with the United States Patent and Trademark Office (hereinafter the "Application"), and ASSIGNOR desires to assign or confirm assignment of the Work and the Application to the below identified Assignee.

AND WHEREAS, **IMEC vzw**, with its principal place of business at **Kapeldreef 75**, **3001** Leuven, **Belgium** (hereinafter the "ASSIGNEE"), desires to acquire or confirm ownership of the entire right, title, and interest in and to the Application and the Work.

AND WHEREAS, Katholieke Universiteit Leuven, with its principal place of business at KU LEUVEN R&D, Waaistraat 6 - box 5105, 3000 Leuven, Belgium (hereinafter the "ASSIGNEE"), desires to acquire or confirm ownership of the entire right, title, and interest in and to the Application and the Work.

NOW, THEREFORE, for good and valuable consideration of which receipt is hereby acknowledged, ASSIGNOR hereby acknowledges that ASSIGNOR has sold, assigned, transferred, and set over, and by these presents does hereby sell, assign, transfer, and set over, unto said ASSIGNEE, its successors, legal representatives, and assigns, the entire right, title, and interest throughout the world in and to the Application and the Work, including: all provisional applications relating to the Work and the Application; all nonprovisional applications claiming priority to aforementioned provisional(s) and/or the Application, including, all divisions, continuations, continuations-in-part, and reissues, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof; and all rights of priority under International Conventions and any related Letters Patent which may hereafter be granted or filed in any country or countries foreign to the United States, all extensions, renewals, and reissues thereof.

ASSIGNOR hereby authorizes and requests the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on

COMBINED				

Application Data Sheet filed previously or concurrently

Docket No.: IMEC1091.001AUS	Page 2 of 3					
Title: SPIN ORBIT TORQUE MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICE						
Inventors: Sushil Sakhare, Kevin Garello, Mohit Gupta, and Manu	Komalan Perumkunnil					
applications as aforesaid, to issue all related Letters Patent to representatives, and assigns.	the ASSIGNEE, its successors, legal					
AND ASSIGNOR DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.						
AND ASSIGNOR DOES HEREBY covenant and agree that ASSIGNOR will: communicate to said ASSIGNEE, its successors, legal representatives, and assigns any facts known to ASSIGNOR respecting the Work; testify in any legal proceeding; assist in the preparation of any other Patent Property relating to the Application and the Work or any improvements made thereto; sign/execute all lawful papers; authorize the filing of, execute, and make all rightful oaths and/or declarations in connection with the Application and the Work including any improvements made thereto, any patent applications filed therefrom, and any continuing application filed from any of the aforementioned applications; and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives, and assigns, to obtain and enforce proper patent protection for the Work in all countries.						
Legal Name of Inventor: Sushil Sakhare						
Signature:	Date:					
Witnessed by:						
Witness Name (printed):						
Legal Name of Inventor: Kevin Garello						
Signature:	Date: <u>24/07/2∞2∞</u>					
Witnessed by: Fasselfel 1/2	Carl XII					
Witness Name (printed): <u>ドタRROKH</u>	<u> </u>					

# COMBINED DECLARATION & ASSIGNMENT (37 CFR 1 63(e)) Application Date Sheet find previously of Concurrently

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Legal Name of Inventor: Mohit Gupte	
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Winess Name (printed)	
Legal Name of Inventor: Manu Konsian Perumkunni	
Sonatore	Date * *
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viiness hame (pinted) Timon Evenblij	
	J. Fr.

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**REEL: 055903 FRAME: 0550** RECORDED: 04/13/2021