

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT8293434

|                                                                                                                                                                                                 |                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <b>SUBMISSION TYPE:</b>                                                                                                                                                                         | NEW ASSIGNMENT                     |
| <b>NATURE OF CONVEYANCE:</b>                                                                                                                                                                    | ASSIGNMENT                         |
| <b>CONVEYING PARTY DATA</b>                                                                                                                                                                     |                                    |
| <b>Name</b>                                                                                                                                                                                     | <b>Execution Date</b>              |
| EMAD FARAG                                                                                                                                                                                      | 09/06/2023                         |
| NUNO PRATAS                                                                                                                                                                                     | 09/06/2023                         |
| FRANK FREDERIKSEN                                                                                                                                                                               | 09/06/2023                         |
| CHUNHAI YAO                                                                                                                                                                                     | 09/06/2023                         |
| <b>RECEIVING PARTY DATA</b>                                                                                                                                                                     |                                    |
| <b>Name:</b>                                                                                                                                                                                    | NOKIA TECHNOLOGIES OY              |
| <b>Street Address:</b>                                                                                                                                                                          | KARAKAARI 7                        |
| <b>City:</b>                                                                                                                                                                                    | ESPOO                              |
| <b>State/Country:</b>                                                                                                                                                                           | FINLAND                            |
| <b>Postal Code:</b>                                                                                                                                                                             | 02610                              |
| <b>PROPERTY NUMBERS Total: 1</b>                                                                                                                                                                |                                    |
| <b>Property Type</b>                                                                                                                                                                            | <b>Number</b>                      |
| Application Number:                                                                                                                                                                             | 17593949                           |
| <b>CORRESPONDENCE DATA</b>                                                                                                                                                                      |                                    |
| <b>Fax Number:</b>                                                                                                                                                                              |                                    |
| <i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i> |                                    |
| <b>Email:</b>                                                                                                                                                                                   | Nokia.IPR@nokia.com                |
| <b>Correspondent Name:</b>                                                                                                                                                                      | NOKIA OF AMERICA CORPORATION       |
| <b>Address Line 1:</b>                                                                                                                                                                          | 600-700 MOUNTAIN AVENUE            |
| <b>Address Line 4:</b>                                                                                                                                                                          | MURRAY HILL, NEW JERSEY 07974-0636 |
| <b>ATTORNEY DOCKET NUMBER:</b>                                                                                                                                                                  | 316405-US-PCT                      |
| <b>NAME OF SUBMITTER:</b>                                                                                                                                                                       | MUKESH KUMAR SRIWASTAVA            |
| <b>SIGNATURE:</b>                                                                                                                                                                               | /Mukesh Kumar Sriwastava/          |
| <b>DATE SIGNED:</b>                                                                                                                                                                             | 11/26/2023                         |
| <b>Total Attachments: 2</b>                                                                                                                                                                     |                                    |
| source=NC316405_New Executed Inventor Assignment_To_NTECH#page1.tif                                                                                                                             |                                    |
| source=NC316405_New Executed Inventor Assignment_To_NTECH#page2.tif                                                                                                                             |                                    |

**ASSIGNMENT - WORLDWIDE**

ASSIGNOR(S)

| <b>Name</b>       | <b>City</b>          | <b>Country</b> |
|-------------------|----------------------|----------------|
| Emad Farag        | Flanders, New Jersey | USA            |
| Nuno Pratas       | Aalborg              | Denmark        |
| Frank Frederiksen | Klarup               | Denmark        |
| Chunhai Yao       | Beijing              | China          |

(Full legal name, city and country of each inventor)

ASSIGNEE

**Nokia Technologies Oy**  
**Karakaari 7, 02610 Espoo, Finland**

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the ASSIGNOR(S) agree to assign and hereby assign, sell, transfer and set over to the ASSIGNEE and its successors, assigns and legal representatives, the entire right, title and interest, for United States of America and for all other countries in and to (1) the invention(s) identified by the following title or application number and filing date, and (2) any and all related inventions ("RELATED INVENTIONS" as defined below).

**Application Title:** INFORMATION TRANSMISSION IN RANDOM ACCESS

**Application number:** WO PCT/CN2019/080672

**Filing date:** 2019-03-29  
 (YYYY-MM-DD)

I/we, the ASSIGNOR(S), hereby authorize and request a representative of the ASSIGNEE to insert the application title, application number and filing date when known/received, after the execution of this document. The ASSIGNOR(S) hereby acknowledge and agree that the ASSIGNEE shall have the right to claim priority, directly or through another patent application, to the application identified above in any and all related patent applications subsequently filed in all jurisdictions.

I/we the ASSIGNOR(S) hereby acknowledge and agree that RELATED INVENTIONS include all national, regional and international patent applications filed and to be filed in any and all jurisdictions, that claim priority to the invention(s) identified by the above title or application number and filing date, said patent applications include all divisionals, continuations, re-issues, re-examinations, and continuations-in-part applications, and RELATED INVENTIONS include all rights and privileges in said patent applications and under any and all letters patent that may be granted in the United States of America and in all other countries resulting from said patent applications.

The ASSIGNOR(S) authorize the ASSIGNEE to make applications for such protection in its own name and maintain such protection in any and all countries including the United States of America, and to invoke and claim for any application for patent or other form of protection for said invention(s), without further authorization from us, any and all benefits, including the rights of priority provided by any and all treaties, conventions, or agreements.

The ASSIGNOR(S) hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of the ASSIGNEE to apply for patent or other form of protection for said invention(s) and to claim the aforesaid benefit of the right of priority.

The ASSIGNOR(S) request that any and all patents for said invention(s) be issued to the ASSIGNEE, its/their successors, assigns and legal representatives, in the United States of America and in all other countries, or to such nominees as the ASSIGNEE may designate.

The ASSIGNOR(S) agree that, when requested, we shall, without charge to the ASSIGNEE sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

The ASSIGNOR(S) and ASSIGNEE agree that this assignment may be executed by either handwritten signatures, including the exchange of scanned representations of handwritten signatures, or e-signatures. By using e-signature to sign this assignment, the ASSIGNOR(S) and ASSIGNEE acknowledge that execution in this manner creates a binding contract between the ASSIGNOR(S) and ASSIGNEE.

The ASSIGNOR(S) and ASSIGNEE have caused this assignment to be duly signed and executed on the respective dates entered below to be effective as of the date of the last signature below.

Each inventor/assignor please sign and date below:

| Inventor (First Middle Last) | Signature                                                               | Date        |
|------------------------------|-------------------------------------------------------------------------|-------------|
| Emad Farag                   | <u>Emad Farag</u><br>Emad Farag (Sep 6, 2023 04:59 EDT)                 | 06-Sep-2023 |
| Nuno Pratas                  | <u>Nuno K. Pratas</u><br>Nuno K. Pratas (Sep 6, 2023 10:49 GMT+2)       | 06-Sep-2023 |
| Frank Frederiksen            | <u>Frank Frederiksen</u><br>Frank Frederiksen (Sep 6, 2023 12:00 GMT+2) | 06-Sep-2023 |
| Chunhai Yao                  | <u>Chunhai Yao</u><br>Chunhai Yao (Sep 6, 2023 16:19 GMT+8)             | 06-Sep-2023 |

The ASSIGNEE accepts this assignment:

**Nokia Technologies Oy**

|                             |                                                                                 |
|-----------------------------|---------------------------------------------------------------------------------|
| Name: Sami Saru             | Signature <u>Sami Saru</u><br>Sami Saru (Sep 6, 2023 18:36 GMT+3)               |
| Title: Authorized Signatory | Date 06-Sep-2023                                                                |
| Name: Mikko Alatossava      | Signature <u>Mikko Alatossava</u><br>Mikko Alatossava (Sep 6, 2023 15:05 GMT+3) |
| Title: Authorized Signatory | Date 06-Sep-2023                                                                |