506226606 08/28/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6273350

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------|----------------|
| JEYANANDH PARAMESH | 05/18/2020 |
| SUSNATA MONDAL | 05/14/2020 |

RECEIVING PARTY DATA

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| Postal Code: | 15213 | |

PROPERTY NUMBERS Total: 2

| Property Type | Number |
|---------------------|----------|
| Application Number: | 62766884 |
| Application Number: | 16677072 |

CORRESPONDENCE DATA

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| ATTORNEY DOCKET NUMBER: | 8350.0088 |
|-------------------------|-------------------|
| NAME OF SUBMITTER: | MARIANA BOTNARU |
| SIGNATURE: | /Mariana Botnaru/ |
| DATE SIGNED: | 08/28/2020 |

Total Attachments: 4

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PATENT 506226606 REEL: 053628 FRAME: 0845

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PATENT REEL: 053628 FRAME: 0846

ASSIGNMENT OF INVENTION

In consideration of the payment by ASSIGNEE to ASSIGNOR of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged,

ASSIGNOR:

Jeyanandh Paramesh c/o Carnegie Mellon University 5000 Forbes Avenue Pittsburgh, PA 15213 US

Does hereby sell, assign and transfer to

ASSIGNEE:

Carnegie Mellon University, having a business address at: 5000 Forbes Avenue
Pittsburgh, PA 15213
US

an invention known as and entitled:

RECONFIGURABLE FULLY-CONNECTED BIDIRECTIONAL HYBRID BEAMFORMING TRANSCEIVER

(the "Invention") and which is described in one or more of the following U.S., foreign and/or regional applications naming the above inventor for the above-entitled Invention:

U.S. Provisional Application Serial No. 62/766,884, filed November 7, 2018 U.S. Patent Application Serial No. 16/677,072, filed on November 7, 2019

ASSIGNOR further assigns the above-referenced patent applications, and any further patent applications claiming priority to the above-referenced patent applications, or describing the Invention, filed in the United States or in any foreign country or in any region defined by treaty, and any continuations, continuations-in-part, divisionals, renewals, or substitutes thereof, and all patents which may issue therefrom, and any reissues or re-examinations of any issued patents.

Assignment of Invention--page 1 of 2 Attorney Docket No. 8350.0088

PATENT REEL: 053628 FRAME: 0847 ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said Invention and said patents and legal equivalents as may be known and accessible to ASSIGNORS and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce the above-references applications, said Invention and said patents and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

| 5/18/2020 | |
|--|---------|
| Intending to be bound thereby, I have hereunto set hand and seal this day of | , 2020. |
| / Jeyanandle Paramesh | |

ASSIGNMENT OF INVENTION

In consideration of the payment by ASSIGNEE to ASSIGNOR of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged,

ASSIGNOR:

Susnata Mondal c/o Carnegie Mellon University 5000 Forbes Avenue Pittsburgh, PA 15213 US

Does hereby sell, assign and transfer to

ASSIGNEE:

Carnegie Mellon University, having a business address at: 5000 Forbes Avenue
Pittsburgh, PA 15213
US

an invention known as and entitled:

RECONFIGURABLE FULLY-CONNECTED BIDIRECTIONAL HYBRID BEAMFORMING TRANSCEIVER

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Assignment of Invention--page 1 of 2 Attorney Docket No. 8350.0088 ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

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| | 5/14/2020 | |
|---|---------------------------------|---------|
| Intending to be bound thereby, I have hereunt | o set hand and seal this day of | , 2020. |
| | / Susnata Mondal. | / |
| | Susnata Mondal | |

Assignment of Invention--page 2 of 2 Attorney Docket No. 8350.0088