

अनुदान की तारीख : 29/04/2021 Date of Grant :



भारत सरकार GOVERNMENT OF INDIA पेटेंट कार्यालय THE PATENT OFFICE पेटेंट प्रमाणपत्र PATENT CERTIFICATE (Rule 74 Of The Patents Rules) क्रमांक : 044129605

SL No:



पेटेंट सं. / Patent No. : 365675

आवेदन सं. / Application No. : 201841005400

फाइल करने की तारीख / Date of Filing : 13/02/2018

पेटेंटी / Patentee : Indian Institute of Technology Madras (IIT Madras)

आविष्कारक (जहां लागू हो) / Inventor(s) : 1.Abhishek Kumar 2.Dr.Sankaran Aniruddhan 3.Dr.Radha

Krishna Ganti

प्रमाणित किया जाता है कि पेटेंटी को उपरोक्त आवेदन में यथाप्रकटित FULL DUPLEX FRONT-END FOR MIMO WIRELESS SYSTEM नामक आविष्कार के लिए, पेटेंट अधिनियम, १६७० के उपबंधों के अनुसार आज तारीख 13th day of February 2018 से बीस वर्ष की अविध के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled FULL DUPLEX FRONT-END FOR MIMO WIRELESS SYSTEM as disclosed in the above mentioned application for the term of 20 years from the 13th day of February 2018 in accordance with the provisions of the Patents Act, 1970.

## ROPERTY INDIA

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पेटेंट नियंत्रक Controller of Patent

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, 13th day of February 2020 को और उसके पश्चात प्रत्येक वर्ष मे उसी दिन देय होगी।

Note. - The fees for renewal of this patent, if it is to be maintained will fall / has fallen due on 13th day of February 2020 and on the same day in every year thereafter.







## The Director

of the United States Patent and Trademark Office has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, shis United States

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grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, products made by that process, for the term set forth in 35 u.s.c. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 u.s.c. 41(b). See the Maintenance Fee Notice on the inside of the cover.

Performing the Functions and Duties of the Under Secretary of Commerce for Intellectual Property and

Director of the United States Patent and Trademark Office