



## NETAJI SUBHAS UNIVERSITY

### Workshop – 1

#### **Patent - Title: Device for Detection of Anti-Cancer Activity of Pyrimidine Derivative**


**Brief Description:** Device for detecting the anticancer activity of a pyrimidine derivative would typically be a cell culture-based assay system that utilizes a colorimetric method like the MTT (3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide) assay to measure the viability of cancer cells exposed to the pyrimidine compound, allowing researchers to assess its cytotoxic effects and potential anticancer activity.


#### **Key components of the device:**

**Cell culture plate:** A standard multi-well plate where different concentrations of the pyrimidine derivative are added to cancer cell lines.

**Incubator:** To maintain the cells at a suitable temperature (typically 37°C) and CO<sub>2</sub> level for optimal growth.

**Spectrophotometer:** Used to measure the absorbance of the colored formazan product generated by the MTT assay, which is directly proportional to the number of viable cells.

  
**DIRECTOR, IQAC**  
NETAJI SUBHAS UNIVERSITY

  
**Registrar**  
Netaji Subhas University  
Jamshedpur, Jharkhand



Intellectual  
Property  
Office

Design number: 6309603

Grant date: 19 September 2023

Registration date: 10 September 2023

This is to certify that,

in pursuance of and subject to the provision of Registered Designs Act 1949, the design of which a representation or specimen is attached, had been registered as of the date of registration shown above in the name of

Dr. Pamarthy Vasanth Kumar, Dr. Periyasami Rajendran Logeshkumar, Sweta

Desai, Shruti Amit Gujar, Devanshi Sunil Gupta, Megha Gandhi, Dr. Dillip Kum

Brahma, Dr. Mahesh Mukund Deshpande

in respect of the application of such design to:

Device for Detection of Anti Cancer Activity of Pyrimidine Derivatives

International Design Classification:

Version: 14-2023

Class: 24 MEDICAL AND LABORATORY EQUIPMENT

Subclass: 01 APPARATUS AND EQUIPMENT FOR DOCTORS, HOSPITALS AND LABORATORIES

Version: 14-2023

Class: 24 MEDICAL AND LABORATORY EQUIPMENT

Subclass: 02 MEDICAL INSTRUMENTS, INSTRUMENTS AND TOOLS FOR LABORATORY USE

Adam Williams


Adam Williams

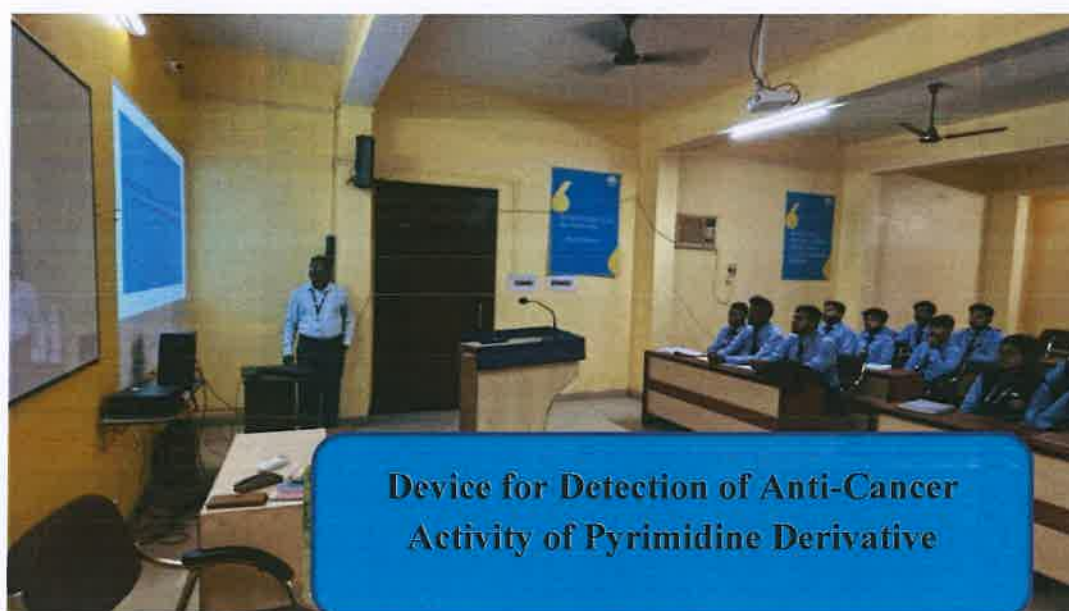
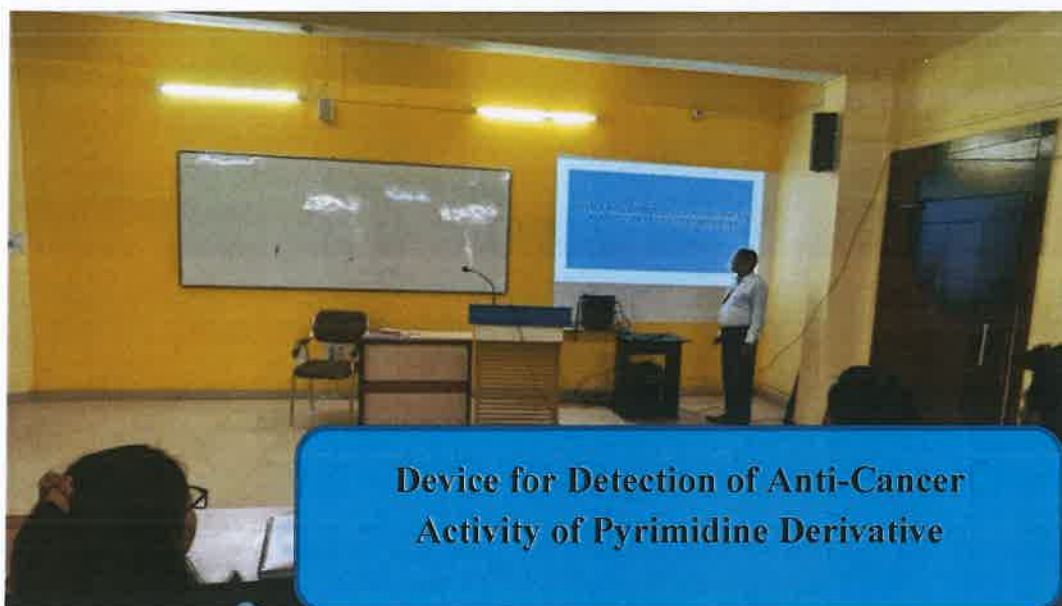
Comptroller-General of Patents, Designs and Trade Marks  
Intellectual Property Office

The attention of the Proprietor(s) is drawn to the important notes covered.




  
DIRECTOR, IQAC  
NETAJI SUBHAS UNIVERSITY

  
Registrar  
Netaji Subhas University  
Jamshedpur, Jharkhand



  
DIRECTOR, IQAC  
NETAJI SUBHAS UNIVERSITY

  
**Registrar**  
Netaji Subhas University  
Jamshedpur, Jharkhand



## NETAJI SUBHAS UNIVERSITY

### Workshop – 2

#### **Patent - Title: An AI and ML Models for Cardiovascular Disease Diagnostics, Readmission and Survival Prediction**

Brief Description: Artificial intelligence (AI)-based applications have found widespread applications in many fields of science, technology, and medicine. The use of enhanced computing power of machines in clinical medicine and diagnostics has been under exploration since the 1960s. More recently, with the advent of advances in computing, algorithms enabling machine learning, especially deep learning networks that mimic the human brain in function, there has been renewed interest to use them in clinical medicine. In cardiovascular medicine, AI-based systems have found new applications in cardiovascular imaging, cardiovascular risk prediction, and newer drug targets.

  
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Jamshedpur, Jharkhand





REPUBLIC OF SOUTH AFRICA

REPUBLIEK VAN SUID AFRIKA

PATENTS ACT, 1978

CERTIFICATE

In accordance with section 44 (1) of the Patents Act, No. 57 of 1978, it is hereby certified that:

**DR.A.VENKATESHWAR REDDY; DR.CHINMAYA MAHAPATRA; DR. DILLIP KUMAR BRAHMA; DR.VURATHI SREENIVASULU; DR.BHASKAR JIMIDI; DR.V.KIRAN KUMAR; DR.NIRANJAN PANDA; DR.GOJE ARJUN; DR. L. RAJESH PATRO; MR.SATYABRATA JENA**

Has been granted a patent in respect of an invention described and claimed in complete specification deposited at the Patent Office under the number

**2023/04530**

A copy of the complete specification is annexed, together with the relevant Form P2.

In testimony thereof, the seal of the Patent Office has been affixed at Pretoria with effect from the 29<sup>th</sup> day of November 2023

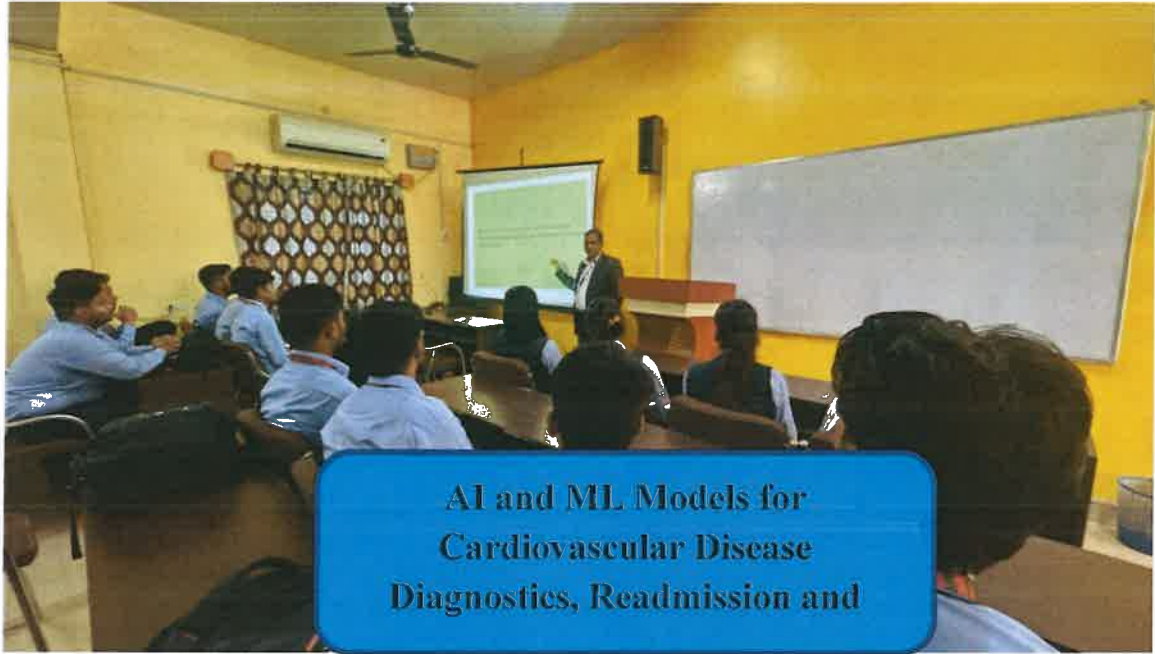
  
Registrar of Patents

  
DIRECTOR, IQAC

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**Registrar**

Netaji Subhas University  
Jamshedpur, Jharkhand



  
DIRECTOR, IQAC  
NETAJI SUBHAS UNIVERSITY

  
**Registrar**  
Netaji Subhas University  
Jamshedpur, Jharkhand




## **NETAJI SUBHAS UNIVERSITY**

### **Workshop – 3**

#### **Patent - Title: Advanced Modified Planetary Ball Mill**

Brief Description: An Advanced Modified Planetary Ball Mill is a high-energy milling device that utilises centrifugal and Coriolis forces to accelerate grinding balls, resulting in intense impact and size reduction of materials, often used for mechanochemistry and nanomaterials preparation.

  
**DIRECTOR, IQAC**  
**NETAJI SUBHAS UNIVERSITY**

  
**Registrar**  
**Netaji Subhas University**  
**Jamshedpur, Jharkhand**





ORIGINAL  
क्रम सं/ Serial No. : 156265



पेटेंट कार्यालय, भारत सरकार

The Patent Office, Government Of India

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं. / Design No. : 401781-001

तारीख / Date : 09/12/2023

पारस्परिकता तारीख / Reciprocity Date\* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **ADVANCED MODIFIED PLANETARY BALL MILL** से संबंधित है, का पंजीकरण, श्रेणी 15-09 में 1.Shaista Sanuber 2. Sandeep Kumar Jhamb 3.Dr. Manu Khare 4.Rupali Sontakke 5.Diksha Joshi 6.Dr. Pushpendra Kumar Saini 7.Dr. Narendra Sharma 8.Dr. Vijay Sharma के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 15-09 in respect of the application of such design to **ADVANCED MODIFIED PLANETARY BALL MILL** in the name of 1.Shaista Sanuber 2. Sandeep Kumar Jhamb 3.Dr. Manu Khare 4.Rupali Sontakke 5.Diksha Joshi 6.Dr. Pushpendra Kumar Saini 7.Dr. Narendra Sharma 8.Dr. Vijay Sharma.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्याधीन प्रावधानों के अनुसरण में।

In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि : 09/02/2024  
Date of Issue



माननीय पेटेंट, डिजाइन और व्यापार चिह्न  
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The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.

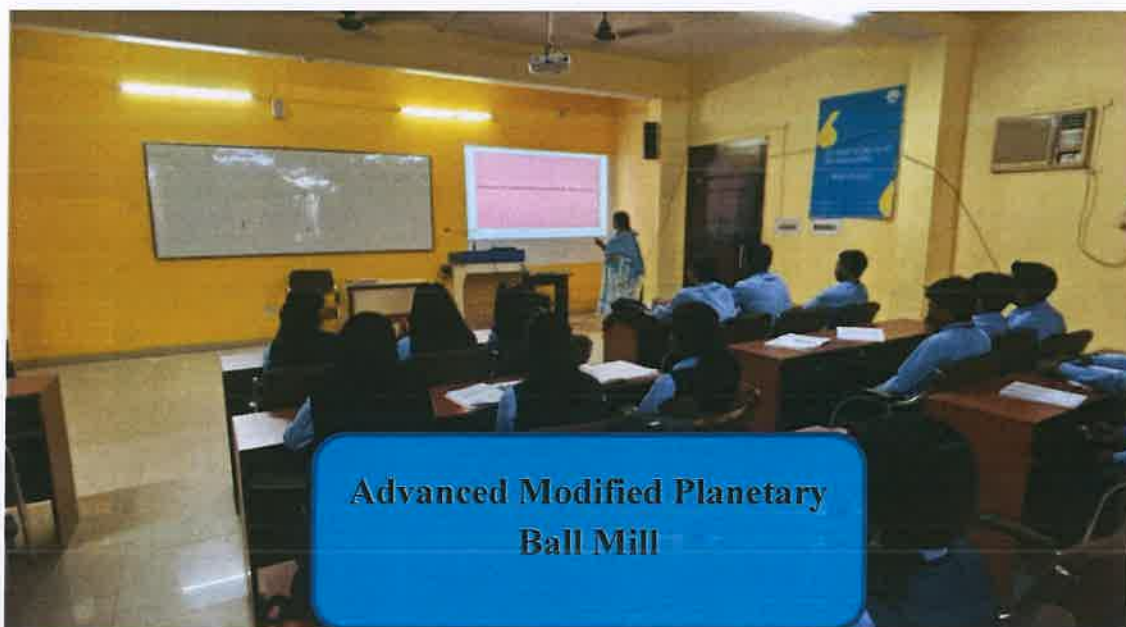
DIRECTOR, IQAC  
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Registrar  
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Jamshedpur, Jharkhand






**Advanced Modified Planetary Ball Mill**



**Advanced Modified Planetary Ball Mill**

  
DIRECTOR, IQAC  
NETAJI SUBHAS UNIVERSITY

  
**Registrar**  
Netaji Subhas University  
Jamshedpur, Jharkhand




## NETAJI SUBHAS UNIVERSITY

### Workshop – 4

#### **Patent - Title: Apparatus for Developing Solid Lipid Nanoparticles for the Treatment of Breast Cancer**

Brief Description: A typical apparatus for developing solid lipid nanoparticles (SLNs) for breast cancer treatment would consist of a high-pressure homogenizer which allows for the creation of small, uniform nanoparticles by forcing a mixture of melted lipid, drug, and surfactant through a narrow orifice under high pressure, resulting in a stable nano-sized emulsion that solidifies upon cooling to form SLNs; additional equipment may include heating elements to melt the lipid, stirring mechanisms for mixing the ingredients, and a cooling system to solidify the nanoparticles after homogenization.

  
DIRECTOR, IQAC  
NETAJI SUBHAS UNIVERSITY

  
Registrar  
Netaji Subhas University  
Jamshedpur, Jharkhand



Intellectual  
Property  
Office

## Certificate of Registration for a UK Design

Design number: 6391142

Grant date: 23 September 2024

Registration date: 14 September 2024

This is to certify that,

in pursuance of and subject to the provision of Registered Designs Act 1949, the design of which a representation or specimen is attached, had been registered as of the date of registration shown above in the name of

Dr. Shubhrajit Mantry, Dr. Jonna Sankaraiah, Dr. Hari Kishan Reddy, Dr. Dillip

Kumar Brahma, Mr. Satyajeet Sahoo

In respect of the application of such design to:

APPARATUS FOR DEVELOPING SOLID LIPID NANOPARTICLES FOR THE  
TREATMENT OF BREAST CANCER

International Design Classification:

Version: 14-2023

Class: 24 MEDICAL AND LABORATORY EQUIPMENT

Subclass: 01 APPARATUS AND EQUIPMENT FOR DOCTORS, HOSPITALS  
AND LABORATORIES

*Adam Williams*

Adam Williams

Comptroller-General of Patents, Designs and Trade Marks  
Intellectual Property Office

The attention of the Proprietor(s) is drawn to the important notes overleaf.



*Shvedha*

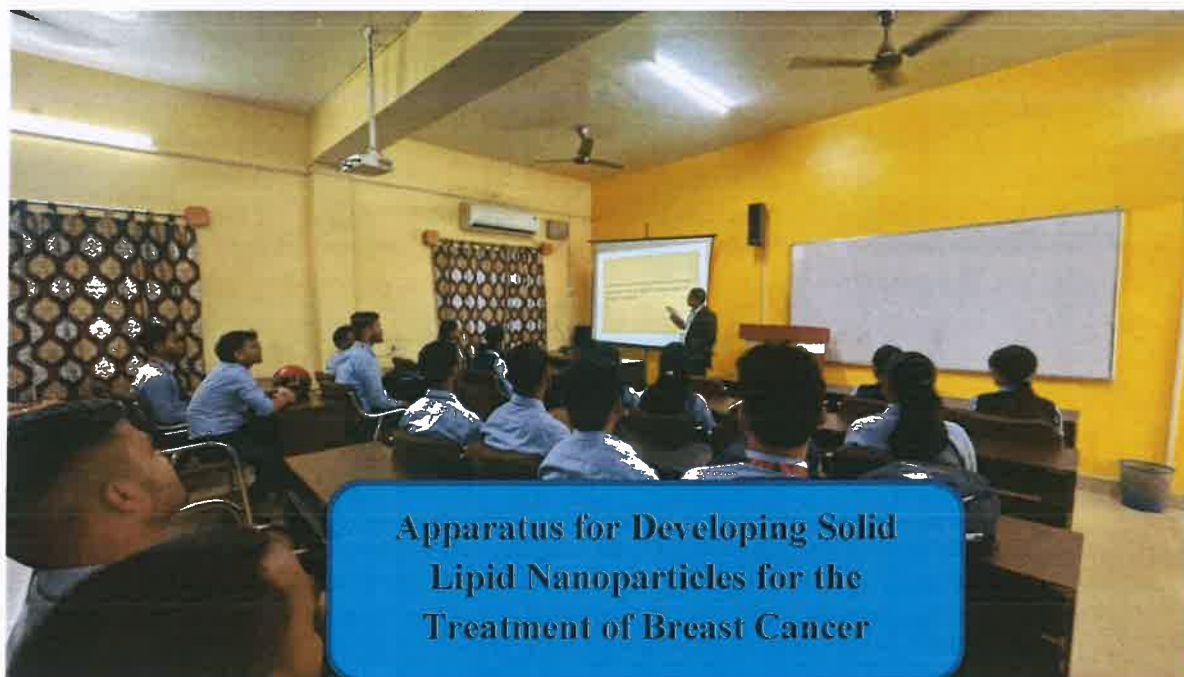
DIRECTOR, IPR


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*[Signature]*

Registrar

Netaji Subhas University  
Jamshedpur, Jharkhand



  
DIRECTOR, IQAC  
NETAJI SUBHAS UNIVERSITY

  
**Registrar**  
Netaji Subhas University  
Jamshedpur, Jharkhand






## **NETAJI SUBHAS UNIVERSITY**

### **Workshop – 5**

#### **Patent - Title: LiDAR Enabled Hotel Carpet Stains Detection Apparatus**

Brief description: The present invention is a LiDAR-enabled hotel carpet stain detection apparatus. This portable device integrates a high-range, compact LiDAR sensor and a thermographic camera, enabling the detection of even the smallest particles or stains embedded in carpets. The sensor and camera are connected to a microcontroller, which processes the input data. The output is presented on an integrated LCD display, accompanied by a red LED indicator and a speaker for precise identification of stains. The device is powered by intelligent circuitry and 18650 lithium-ion batteries, ensuring a 48-hour operational backup with built-in safety features to prevent short circuits during use. This innovative system enhances efficiency and reliability in identifying carpet stains, making it a valuable tool for the hospitality industry.

  
**DIRECTOR, IQAC**  
**NETAJI SUBHAS UNIVERSITY**

  
**Registrar**  
**Netaji Subhas University**  
**Jamshedpur, Jharkhand**



ORIGINAL

क्रम सं/ Serial No. 191078



पेटेंट कार्यालय, भारत सरकार

The Patent Office, Government Of India

डिजाइन के पंजीकरण का प्रमाण पत्र

Certificate of Registration of Design

डिजाइन सं. / Design No. 439461-001

तारीख / Date 04/12/2024

पारस्परिकता तारीख / Reciprocity Date\*

देश / Country

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **LIDAR ENABLED HOTEL CARPET STAIN DETECTION APPARATUS** से संबंधित है, का पंजीकरण, श्रेणी 10-05 में 1.Suraj Jaywant Yadav 2. Prof. Dr. Sagar H. Mohite 3.Swati Haridas Deshani 4.Dr. Santimoy Mandal 5.Dr. Snigdha Singh 6.Abhilash Ghosh 7.Ekarna Chakraborty 8.Dr. Tanmay Sinha Roy 9.Dr. Santanu Dasgupta 10.Asik Rahaman Jamader के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 10-05 in respect of the application of such design to **LIDAR ENABLED HOTEL CARPET STAIN DETECTION APPARATUS** in the name of 1.Suraj Jaywant Yadav 2. Prof. Dr. Sagar H. Mohite 3.Swati Haridas Deshani 4.Dr. Santimoy Mandal 5.Dr. Snigdha Singh 6.Abhilash Ghosh 7.Ekarna Chakraborty 8.Dr. Tanmay Sinha Roy 9.Dr. Santanu Dasgupta 10.Asik Rahaman Jamader.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्याधीन प्रावधानों के अनुसरण में।

In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि : 30/01/2025

Date of Issue :



अज्ञात प्रेषित

महानिरीक्षक पेटेंट, डिजाइन और व्यापार चिह्न  
Controller General of Patents, Designs and Trade Marks

\*पारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वतः अधिकार पंजीकरण की तारीख से दस वर्षों के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के निबंधनों के अधीन, पाँच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।

The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.

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NETAJI SUBHAS UNIVERSITY

Registrar  
Netaji Subhas University  
Jamshedpur, Jharkhand



**LiDAR Enabled Hotel Carpet Stains Detection Apparatus**



**LiDAR Enabled Hotel Carpet Stains Detection Apparatus**

*Shedh*

**DIRECTOR, IQAC  
NETAJI SUBHAS UNIVERSITY**

*[Signature]*  
**Registrar**

**Netaji Subhas University  
Jamshedpur, Jharkhand**





## NETAJI SUBHAS UNIVERSITY

### Workshop – 6

#### **Patent - Title: Block chain Enabled Digital Restaurant Table**

**Brief Description:** The present invention introduces an advanced digital display system integrated into restaurant tables, enhancing the dining experience through technology. Each table is equipped with a large touch screen display that dynamically showcases the restaurant's menu. Guests can interact with the display to browse the menu and place orders directly via the touch interface. The system seamlessly integrates with the hotel's Property Management System (PMS) for efficient order processing, enabling automatic Kitchen Order Ticket (KOT) and Bar Order Ticket (BOT) generation. The touch screen display at the table provides an interactive interface for guests to browse the menu and place orders, pay bills and all type of activities of a restaurant. Upon payment, guests receive a digital copy of the bill via WhatsApp and SMS, ensuring seamless communication. Guest data, including transaction history, is safeguarded using block chain technology, ensuring robust security and immutability.

**DIRECTOR, IQAC**  
**NETAJI SUBHAS UNIVERSITY**

**Registrar**  
**Netaji Subhas University**  
**Jamshedpur, Jharkhand**





ORIGINAL

क्रम सं/ Serial No. : 190928



पेटेंट कार्यालय, भारत सरकार

The Patent Office, Government Of India

डिजाइन के पंजीकरण का प्रमाण पत्र

Certificate of Registration of Design

डिजाइन सं. / Design No.

439845-001

तारीख / Date

08/12/2024

पारस्परिकता तारीख / Reciprocity Date\*

देश / Country

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **BLOCKCHAIN ENABLED DIGITAL RESTAURANT TABLE** से संबंधित है, का पंजीकरण, श्रेणी 06-03 में 1.Prof. Dr. Sagar H. Mohite 2. Suraj Jaywant Yadav 3.Nikhil Devrao Wankhede 4.Dr. Amitabh Mishra 5.Chef Nitin Shende 6.Abhilash Ghosh 7.Dr. Santimoy Mandal 8.Dr. Jaideep Yadavrao Hire 9.Dr. Santanu Dasgupta 10.Asik Rahaman Jamader के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 06-03 in respect of the application of such design to **BLOCKCHAIN ENABLED DIGITAL RESTAURANT TABLE** in the name of 1.Prof. Dr. Sagar H. Mohite 2. Suraj Jaywant Yadav 3.Nikhil Devrao Wankhede 4.Dr. Amitabh Mishra 5.Chef Nitin Shende 6.Abhilash Ghosh 7.Dr. Santimoy Mandal 8.Dr. Jaideep Yadavrao Hire 9.Dr. Santanu Dasgupta 10.Asik Rahaman Jamader.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्याचीन प्रावधानों के अनुसरण में।

In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि  
Date of Issue

28/01/2025

उज्ज्वल सिंह  
उज्ज्वल सिंहमहानियंत्रक पेटेंट, डिजाइन और व्यापार चिह्न  
Controller General of Patents, Designs and Trade Marks

\*पारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वत्वाधिकार पंजीकरण की तारीख से दस वर्षों के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के निबंधनों के अधीन, पाँच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।

The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.

DIRECTOR, IQAC  
NETAJI SUBHAS UNIVERSITY

Registrar  
Netaji Subhas University  
Jamshedpur, Jharkhand



**Block chain Enabled Digital Restaurant Table**



**Block chain Enabled Digital Restaurant Table**

*Shadi*  
**DIRECTOR, IQAC**  
**NETAJI SUBHAS UNIVERSITY**

*[Signature]*  
**Registrar**  
**Netaji Subhas University**  
**Jamshedpur, Jharkhand**