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Ministry of Industries
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পেটেন্টের দাখিলকৃত আবেদনসমূহের প্রকাশনা
Publication of filed patent applications

এতদ্বারা জানানো যাইতেছে যে, বাংলাদেশ পেটেন্ট আইন, ২০২২ এর ধারা ১৪ (২) মোতাবেক দাখিলকৃত পেটেন্ট আবেদনসমূহ প্রকাশ করা হইল। উল্লিখিত পেটেন্ট আবেদন সম্পর্কীয় উদ্ভাবনের জন্য পেটেন্ট আবেদনের বিরোধিতা করিয়া যে কোন ব্যক্তি বা প্রতিষ্ঠান বিদ্যমান আইন মোতাবেক প্রকাশনার তারিখ হইতে ৯০(নব্বই) দিনের মধ্যে নির্ধারিত ফরম এর মাধ্যমে বিরোধিতার নোটিশ দাখিল করিতে পারিবেন।

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ডিপিডিটি

	Patent application		
Serial No	Application No	Year	Patent Number
1	239	2021	
2	240	2021	
3	241	2021	
4	245	2021	
5	246	2021	
6	247	2021	
7	249	2021	
8	250	2021	
9	256	2021	
10	257	2021	
11	258	2021	
12	261	2021	
13	263	2021	
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17	280	2021	
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19	282	2021	
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25	289	2021	
26	290	2021	
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29	293	2021	
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31	295	2021	
32	296	2021	
33	298	2021	

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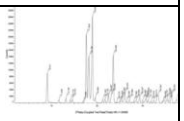
Publication of Filed Patent Application:
No: 06 (Publication date: 15/06/2023)

ক্রমিক নং (Serial no.)	উদ্ভাবনের শিরোনাম (Title of the Invention)	আবেদনকারী ও উদ্ভাবকের নাম Name of the Applicant(s) & Inventor(s)	আবেদন দাখিলের তারিখ ও নম্বর (Filing date & Number)	অগ্রাধিকার নম্বর ও তারিখ Priority number & Date	পেটেন্ট-এর শ্রেণি Classification of Patent (IPCs)	বিষয়বস্তুর সার-সংক্ষেপ (Abstract)	অংকন (Drawing)
1.	CRYSTALLINE FORM OF L-GLUFOSINATE AMMONIUM SALT AND PROCESS FOR PRODUCTION THEREOF	UPL LIMITED KINI, Prashant Vasant ; MUDALIAR, Chandrasekhar Dayal ; MISHRA, Ashishkumar Ravindra and SHELKE, Santosh Ganpat	01/08/2021 BD/P/ 2021/239	IN 202021033002 31/07/2020	C 12P 13/04	The present disclosure relates to a novel crystalline form of L-glufosinate ammonium salt and a process for preparation thereof. The present disclosure also provides compositions comprising said form and a method for the control of undesired plant growth using said compositions.	

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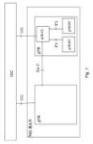
2.	E1 SIGNALLING FOR GROUP HANDOVER	Telefonaktiebolaget LM Ericsson (publ) Oumer Teyeb; Filip Barac and Ajmal Muhammad	01/08/2021 BD/P/ 2021/240	US 63/059,224 31/07/2020	H 04W 40/36	ABSTRACT According to certain embodiments, a method in a network node for performing a group handover comprises receiving an indication to perform a bearer context operation on a plurality of bearer contexts and performing the indicated bearer operation on the plurality of bearer contexts. FIGURE 15	

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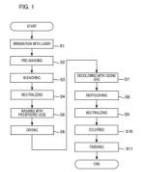
3.	DAMAGE PROCESSING METHOD AND MANUFACTURING METHOD FOR TEXTILE PRODUCT	FAST RETAILING CO., LTD. Masaaki MATSUBARA and Darwin DUMPIT	03/08/2021 BD/P/ 2021/241	US 16/988,139 07/08/2020	E 21B 43/25	The present invention relates to provision of a textile product having a naturally faded appearance. A damage processing method for a textile product includes: irradiating a surface of the textile product with a laser beam (S1); washing the textile product irradiated with the laser beam with a phosphoric acid aqueous solution (S5); and exposing the washed textile product to ozone gas (S7).	

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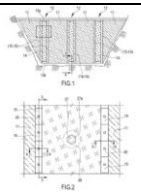
4.	System For The Double-Sealed Connection Of Waterproofing Panels For Hydraulic Works	Carpi Tech B.V. of Bredaseweg Alberto Maria SCUERO	05/08/2021 BD/P/ 2021/245	IT 102020000019735 07/08/2020	E 02B 3/16	A system for the double-sealed connection of waterproofing panels (11) for lining surfaces of hydraulic works (10), such as dams, canals, water basins and the like. The system comprises a central connection band (14), made of elastically flexible material and resistant to stress and perforation, whose longitudinal edges (14') are superimposed to the longitudinal edges (11') of continuous waterproofing panels (11); the system further comprises a bottom locking element (16), an upper locking element (15) superimposable to the previous one, and at least an intermediate sealing gasket (18), which extend along longitudinal edges (14') of the connection band (14) superimposed to the longitudinal edges (11') of contiguous waterproofing panels (11); the bottom locking element (16) and the upper locking element (15) comprise a plurality of axially aligned rectangular compression plates (15',16') connected by flexible hinges to allow the locking elements (15,16) to freely adapt against planar and/or irregular surfaces of the surface of the specific hydraulic work (10) to be waterproofed.	

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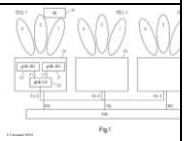
5.	Control Channel Repetition With Mapping Scheme	Nokia Technologies OY Sami-Jukka HAKOLA and Keeth Saliya JAYASINGHE LADDU	05/08/2021 BD/P/ 2021/246	EP 20189860.8 06/08/2020	H 04W 72/04	Disclosed is inter alia an apparatus comprising means for obtaining (201) a resource configuration for a control channel carrying control data, obtaining (201) information indicating a transmission period for a repeated transmission of said control data on said control channel; obtaining (201) transmission configuration data defining one or more transmission states for said resource configuration; obtaining (202) monitoring information indicating one or more monitoring occasions associated with said resource configuration; and monitoring (206 – 211) said control channel for control data on said monitoring occasions by using a mapping scheme between at least one of said one or more transmission states and said monitoring occasions within said transmission period.	

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6.	A SYSTEM AND METHOD FOR USER RANKING AND ADAPTATIONS THEREOF FOR VOICE BASED INTERACTIONS	Hishab Technologies Limited Hishab Technologies Limited Kai Samuel David Erik Karren; Michael Schmitz and Zubair Ahmed	08/08/2021 BD/P/ 2021/247		H 04W 1/72	The present invention relates to systems and methods for adapting elements of a user interface of an interactive voice response system in a voice-based interaction based on rank of a user and more particularly to ranking user for their expertise. The method of ranking the user comprises a dialogue engine receiving information related to a plurality of attributes for a voice-based interaction. A user rank classifier determines user rank and updates a user model by a user model update component. Further, the dialogue engine adapts and provides the user with a user interface based on the user's rank corresponding to his expertise thereby, enhances engagement during interaction. This makes the interface more efficient, approachable and user-friendly. Moreover, it saves time and cost for both the system operations and the user.	

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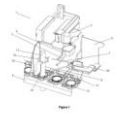
7.	YARN THREADING ARRANGEMENT IN A PIECING UNIT OF RING SPINNING MACHINE	LAKSHMI MACHINE WORKS LTD Pasupathy, Jeganathan and Kumar, Arulanandam Thilip	08/08/2021 BD/P/ 2021/249	IN 202041039153 10/09/2020	D 01H 15/00	ABSTRACT YARN THREADING ARRANGEMENT IN A PIECING UNIT OF RING SPINNING MACHINE The present invention relates to an automatic piecing unit (2) of a ring spinning machine (10) for piecing broken yarns. The automatic piecing unit (2) comprises a top suction tube (15) for holding an end of a broken yarn (12) inside, a gripper arm (3), a rocker arm (4), a tensioning arm (7) and a blow jet (6). The gripper arm (3) moves to hook the end of the yarn (12) held between the top suction tube (15) and the cop (17). A rocker arm (4) moves to hook the end of the yarn (12) held between the gripper arm (3) and the cop (17). A tensioning arm (7) is configured such that the yarn (12) held does not make contact with the balloon control ring (19) and guides upon the tensioning arm (7) and reaches the traveler (13) position without any hindrance. The gripper arm (3) and the rocker arm (4) holds the yarn (12) tangential to the ring (14) such that the yarn (12) is threaded inside the rotating traveler (13) by the blow jet (6). (To be published with Figure 1)	

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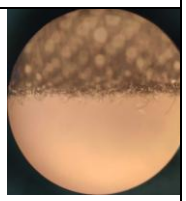
8.	Textile stone washing process	APLICACION Y SUMINISTROS TEXTILES, S.A.U. PUTZU, Stefano; CARCELEN SERVAIS, Aida; MARTINEZ CANO, Antonio; JORDANA REYES, Xavier and SCHOENENBERGER ARNAIZ, Albert	09/08/2021 BD/P/ 2021/250	BD 20383008.8 18/11/2020	D 06F 33/36	The present invention relates to is a solid composition for a textile stone washing process. It also relates to a stone washing process using said composition. It also relates to the use of said composition for the treatment of garments.	

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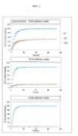
ক্রমিক নং (Serial no.)	উদ্ভাবনের শিরোনাম (Title of the Invention)	আবেদনকারী ও উদ্ভাবকের নাম Name of the Applicant(s) & Inventor(s)	আবেদন দাখিলের তারিখ ও নম্বর (Filing date & Number)	অগ্রাধিকার নম্বর ও তারিখ Priority number & Date	পেটেন্ট-এর শ্রেণি Classification of Patent (IPCs)	বিষয়বস্তুর সার-সংক্ষেপ (Abstract)	অংকন (Drawing)
9.	COATING CONTAINING MICRONUTRIENTS FOR FERTILIZER GRANULES	The Mosaic Company Michael MCLAUGHLIN; Roslyn BAIRD; KABIRI, Shervin; Jozefien DEGRYSE and Rodrigo Coqui DA SILVA	12/08/2021 BD/P/ 2021/256	US 63/064,550 12/08/2020	B 29B 9/00	ABSTRACT A wax-based coating for fertilizer granules capable of supplying micronutrients to soil while increasing the surface hydrophobicity and abrasion resistance of the fertilizer granules is disclosed. The wax-based coating provides the flexibility of formulating slow and fast releasing micronutrients, and ensures micronutrients are evenly coated across every fertilizer granule. Single or multi-nutrient combinations of coatings are possible, providing formulation flexibility.	

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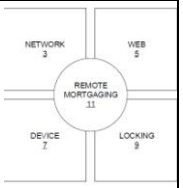
10.	SYSTEM AND METHOD FOR REMOTE PROVISION, DISBURSEMENT AND COLLECTION OF SECURED LOANS	Channel Technologies FZE CHATZISTAMATIOU, Antonios	16/08/2021 BD/P/ 2021/257	ZA 2020/05065 17/08/2020	H 04L 1/16	A system and method for remote provision, disbursement and collection of secured loans are provided. A method includes receiving a loan registration request including a consumer identifier associated with a consumer record and with a communication device identifier which uniquely identifies a communication device. The method includes interacting with a software module executing on the communication device to enable a lock-ready state in which predefined functionality of the communication device can be disabled remotely by initiating a lock action and receiving confirmation of the lock-ready state being enabled. The loan is registered against the consumer record. Occurrence of a first condition or a second condition associated with the loan registered against the consumer record is detected. In response to detecting the occurrence of the second condition, a lock action is initiated to disable the predefined functionality of the communication device.	

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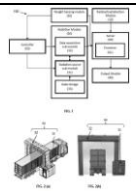
11.	A SYSTEM AND METHOD FOR INSPECTING A CARGO USING MULTIPLE ENERGY LEVEL RADIATION	BILLION PRIMA SDN BHD Goh Chu Leong; Lee Yuh Jiunn; Joanne Soh Zi En and Tan Heng Kwan	16/08/2021 BD/P/ 2021/258	MY PI2020004477 28/08/2020	H 01L 21/263	The present invention relates to a system (100) and method for inspecting object using a plurality of interlacing radiation energies. The system (100) comprising a radiation module (30) configured for producing and capturing radiation in multiple energy levels to scan the content of the cargo and converting the captured radiation into a plurality of images; anda controller (50) configured for signalling the radiation 10 module (30) to start or to stop producing radiation and for controlling the energy level and pulse frequency of the radiation produced by the radiation module (30). The system (100) further comprisinga processor (61) configured for determining whether the cargo contains any contraband or not by analysing the plurality of images, classifying the cargo based on types of materials and substance groups and 15 highlighting region on an analysed image of the same substance by bounding perimeter of the object within a material-colour image for the material.	

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12.	AN ORGANIC AGRICULTURAL COMPOSITION	Hiteshkumar Anilkant Doshi SULPHUR MILLS LIMITED Hiteshkumar Anilkant Doshi	17/08/2021 BD/P/ 2021/261	IN IN202021035373 17/08/2020	C 06B 25/00	The present invention relates to an organic agricultural composition comprising elemental sulphur and at least one hydrocolloid, wherein the composition is in the granular or suspension form, and wherein the hydrocolloid has viscosity of ≤400 cps at ≤30 % (w/w) aqueous dispersion of the hydrocolloid. The invention also relates to a process of preparing an organic agricultural composition comprising elemental sulphur and at least one hydrocolloid; wherein the composition is in the form of water dispersible granules or spheronised granules or suspension, and wherein the hydrocolloid has viscosity of ≤400 cps at ≤30 % (w/w) aqueous dispersion of the hydrocolloid.	

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13.	INTEGRITY VERIFICATION IN A WIRELESS COMMUNICATIO N NETWORK	Telefonaktiebolaget LM Ericsson (publ) Magnus Hallenstål; Maria Cruz Bartolome RODRIGO; Christine Jost and Ferhat Karakoc	18/08/2021 BD/P/ 2021/263	US 63/069, 184 24/08/2020	H 04W 92/00	Abstract Network equipment implements a network function in a wireless communication network.The network equipment obtains integrity verification informationthat is a function of only a portion of a message. The message is either a request for a service to be consumed by the network function or a response to a request for a service provided by the network function. The network equipment digitally signs an assertion that includes the integrity verification information, and then sends the message and the digitally signed assertion to a service communication proxy. Other network equipment that receives the message and the digitally signed assertion may checkan integrity of the portion of the message, based on integrity verification information that the other network equipment obtains and on the integrity verification information included in the digitally signed assertion . Figure for publication: Figure 1	

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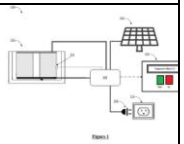
14.	KITCHEN-CONNECTED INDOOR STATIONARY SOLAR COOKING DEVICE	Indian Oil Corporation Limited SAXENA, Deepak; RAMAKUMAR, Sankara Sri Venkata; DIKSHIT, Vibhav; TIWARI, Vinay; SRIVASTVA, Umish and SINGH, Sudhir kumar	18/08/2021 BD/P/ 2021/264	IN 202021035586 18/08/2020	F 24S 25/00	A modular kitchen-connected indoor stationary solar cooking device (102)is disclosed. The solar cooking device (102) includes a housing (202), a thermal battery (204) disposed in the housing (202) and adapted to store thermal energy, and a first heater (206) disposed to be in contact with the thermal battery (204).The first heater (206) is coupled to a solar array (104) and adapted to receive solar energy for charging the thermal battery (204). The solar cooking device (102) includes a second heater (208) disposed to be in contact with the thermal battery (204).The second heater (208) is coupled to a mains supply and adapted to receive electrical supply for charging the thermal battery (204). The solar cooking device (102) includes a heat control assembly (210) disposed on a cooktop (802) and adapted to accommodate a cooking vessel.The heat control assembly (210) is adapted to rotate for controlling a heat supply for cooking in the cooking vessel.	

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15.	DIGITALLY MONITORING OF COMPOSITE PRESSURE VESSEL	Hexagon Ragasco AS Vegard Jensrud	19/08/2021 BD/P/ 2021/265	BD 20191898.4 20/08/2020	F 16J 10/00	System and method for digitally monitoring a pressure vessel (19) for holding compressed gas, wherein the system comprises a sensor unit (5) placeable on the pressure vessel (19) for gathering information regarding the condition of the pressure vessel (19), a communication unit for wirelessly communicating the gathered information to a receiver wherein the sensor unit (5) comprises: • a temperature sensor for measuring the temperature of the pressure vessel (19), • a gas pressure sensor, • at least one power unit for supplying power to the sensors and the communication unit.	

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16.	SYSTEM AND METHOD FOR DIGITALLY MONITORING A PRESSURE VESSEL	Hexagon Ragasco AS Vegard Jensrud	19/08/2021 BD/P/ 2021/266	BD 20191894.3 20/08/2020	F 17C 6/00	System and method for digitally monitoring the level of gas in liquid form in a composite pressure vessel made of at least a gas tight inner liner (4) inside a layer of composite material, wherein the system (5) comprises - capacitive measuring unit for measuring the level of gas in liquid form in the pressure vessel, at least two sensor electrodes connected to the capacitive measuring unit, a communication unit for communicating the information measured by the capacitive measuring unit and - a power unit for supplying power to at least one of the at least two electrodes, the capacitive measuring unit and the communication unit.	

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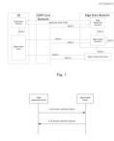
17.	METHOD AND APPARATUS FOR IMPROVED CAPABILITY EXPOSURE AT EDGE ENABLER SERVER.	Telefonaktiebolaget LM Ericsson (publ) Wenliang Xu	23/08/2021 BD/P/ 2021/280	CN PCT/CN2020/119 342 30/09/2020	G 06Q 30/02	Abstract Various embodiments of the present disclosure provide methods and apparatuses for improved capability exposure at an edge enabler entity. The method implemented at the edge enabler entity comprises receiving a request for an exposure capability of 3GPP core network from an edge application entity, the request comprising a user equipment, UE, group identifier identifying a group of UEs. The method further comprises communicating with the 3GPP core network based on the request, and transmitting a response to the edge application entity. (Fig. 8)	

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18.	Non- Toxic Solution to Kill Mosquitos, Ants and Cockroaches	Md. MonjurulHaq Md. MonjurulHaq	23/08/2021 BD/P/ 2021/281		A 01M 1/00	We are habituated to repel or kill mosquitoes using aerosol or coil (available in the markets in Bangladesh) , which are toxic and not safe for human and pets. These are not following proper complete guidelines correctly. As a result, we are blind to effects. I have to learn to solve the problem for long time. My target is to solve the problem. I have prepared a liquid solution using SLS (Sodium Lauryl Sulfate) and sprayed to kill mosquitoes, ants, cockroaches and other some soft bodied insects.	

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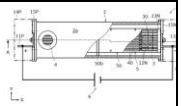
19.	Electrolysis Apparatus	MITSUBISHI HEAVY INDUSTRIES ENVIRONMENTAL & CHEMICAL ENGINEERING CO., LTD. Hiroyuki TAKANAMI	23/08/2021 BD/P/ 2021/282	JP 2020-141678 25/08/2020	B 01D 59/40	An electrolysis apparatus (1) includes an outer cylinder (2) having an inlet (3) and an outlet (4) on a side surface (2a) of the cylinder; positive electrode plates connected to a first base at equal intervals and arranged near one opening of the inlet (3) and the outlet (4); a negative electrode plates connected to a second base at equal intervals and arranged near an opening of the other of the inlet (3) and the outlet (4); and insulative positive electrode-side spacers (20) each disposed between every adjacent positive electrode plates, or insulative negative electrode-side spacers (30) each disposed between every adjacent negative electrode plates. One opening is positioned radially outward with respect to spaces defined between the positive or negative electrode plates. Each positive or negative electrode-side spacer (20, 30) is provided with an inclined surface inclined with respect to the central axis of the outer cylinder (2), for guiding a flow of a fluid to be processed from one opening toward the central axis direction, or from the central axis direction toward one opening.	

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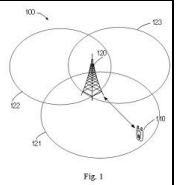
20.	Method, Device And Computer Readable Medium Of Communication For Beam Failure Recovery	Nokia Technologies OY Timo KOSKELA; Chunli WU and Samuli TURTINEN	23/08/2021 BD/P/ 2021/283	CN PCT/CN2020/110907 24/08/2020	H 04B 7/06	Embodiments of the present disclosure relate to methods, devices and computer readable storage media of communication for BFR. A method implemented at a first device comprises detecting a beam failure for a serving cell of the first device; in accordance with a determination that the beam failure is detected for the serving cell, triggering a procedure for a beam failure recovery for the serving cell; determining whether information related to the beam failure recovery is available for the serving cell; and in accordance with a determination that the information is unavailable, transmitting to a second device a first indication that the beam failure is detected and a second indication that no candidate beam is available. In this way, the full BFR information for the failed serving cells can be acquired finally, and more reliable and faster BFR can be achieved.	

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21.	Smart Nano-micro size fish feed with vitamins	Engr. Md. Ahsan Habib adult Dr. Md. Zaved Hossain Khan	24/08/2021 BD/P/ 2021/284		A 23K 20/174	The present study was conducted to evaluate the effects of dietary nano-nutrients on growth, physiological and amino acid response of the Tilapia fish. Vitamins were incorporated with the chemically synthesized nanoparticles (Fe, Zn, Cu and Se) to form nano-nutrients complex (NNC). X-ray powder diffraction (XRD) and scanning electron microscopy (SEM) analyses were performed to confirm the structure and morphology of as-prepared nutrients. A commercial basal diet kept without the addition of any NNC as a control and compared with other two diets formulated with different levels of NNC. In 60 days feeding trial, fish fed with a diet of NNC showed significant differences in the final weight and length compared with basal diet. Furthermore, the high value of nutrients content was observed in fish muscles fed with nano diets. In addition, protein, total fat, vitamin C and essential amino acids levels were significantly higher in NNC60 treated fish compared with other groups. The present study suggests that addition of NNC with commercial diet had potential to enhance growth performance and biochemical parameters in Tilapia fish.	

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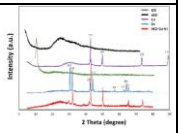
22.	Hybrid Nanocomposite Modified Photoanode for Dye-sensitized Solar Cell	Engr. Md. Ahsan Habib, Registrar Md. Rashid Al-Mamun, Assistant Professor and Dr.Md. Zaved Hossain Khan	24/08/2021 BD/P/ 2021/285		H 01L 31/0687	The invention provides a preparation method of reduced graphene oxide-copper-tin (rGO-Cu-Sn) modified TiO2 photoanode for dye sensitized solar cell (DSSCs). The invention solves the problem of low photoelectric conversion efficiency of an existing dye-sensitized solar cell photoanode. The method comprises the following steps: synthesis of rGO-Cu-Sn hybrid nanocomposite, deposition of rGO-Cu-Sn hybrid nanocomposite on FTO electrode, preparation and deposition of TiO2, using a tape casting or screen printing method to paste the slurry on a rGO-Cu-Sn modified FTO glass, and carrying out drying and roasting to obtain a rGO-Cu-Sn modified dye sensitization solar cell TiO2 photoanode. The incorporation of rGO-Cu-Sn nanocomposite enlarges surface areas of the photo-anode films and confirmed the high charge mobility to accelerate the electron transport efficiency by creating additional conduction paths for iodide reduction. It is highly promising that such a hybrid nanocomposite configuration can be used in electrode modification for future electronic devices.	

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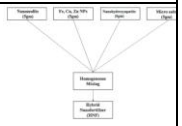
23.	Synthesis of Nanoparticle-based Nano-fertilizer for Agriculture	Engr. Md. Ahsan Habib adult Dr, Md. Zaved Hossain Khan Associate Professor, Dept. of Chemical Engineering and Md. Rashid Al-Mamun Lecturer, Dept. of Chemical Engineering	24/08/2021 BD/P/ 2021/286		A 01B 61/00	A small amount of task has been accomplished on using nanotechnology-based principle for delivering nutrients to crops although nanotechnology is used widely everywhere of practical life. Consequently, the purpose of this research was to formulate a hybrid nano-fertilizer (HNF) for slow and sustainable release of nutrients to crops. HNF was formulated by incorporating urea modified nano-hydroxyapatite and nanoparticles including copper, iron and zinc using simple chemical approach. Analytical tools like SEM, FTIR and XRD were used to characterize the proposed fertilizer. HNF and commercial fertilizer were separately applied to the field of ladies' finger (Abelmoschus esculentus). HNF was used 50 mg per week while commercial fertilizer was used 5 g per week. A vast increase was observed in swelling ratio, water absorption capacity and equilibrium water content, water retention capacity of HNF from the commercial fertilizer. Nutrients slow-release studies carried out in soil and water ensured the long-term availability of Ca2+, PO43-, NO2- , NO3-, Cu2+, Fe2+ and Zn2+ to the plant. Furthermore, the vital increase of	

						Cu2+, Fe2+ and Zn2+ nutrients uptake in ladies' finger was confirmed at this lower concentration of HNF from commercial fertilizer. So, we concluded that HNF can replace commercial fertilizers in the cultivation of lady's finger. To the best of our knowledge, HNF is the first fertilizer in which the Cu, Fe and Zn nanoparticles have been mingled together. As a result, they reduce the deficiency of nutrients on the plants and human body.	

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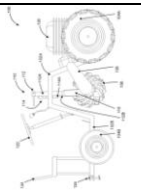
24.	An Agricultural Vehicle	INDUSTILL FARMTECH PRIVATE LIMITED	24/08/2021 BD/P/ 2021/287		A 01B 69/00	An agricultural vehicle comprises a chassis having a bent configuration defined by a bent portion configured between a pair of substantially horizontal support portions; a first pair of wheels supported at an operative front section of the chassis; a second pair of wheels supported at an operative rear section of the chassis; at least one mounting link pivotally connected to the bent portion of the chassis, wherein one end of the at least one mounting link is pivotally connected to a support member configured on the bent portion of the chassis; an agricultural tool coupled to another end of the at least one mounting link; a displacement mechanism coupled to the agricultural tool for facilitating the displacement of the agricultural tool in an operatively vertical direction; a seating arrangement configured on the chassis substantially above the second pair of wheels; and a steering mechanism.	

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25.	AN ELECTRIC MOTOR VEHICLE	Bajaj Auto Limited UPADHYAY PRASHANT PREMNATH ; CHAUDHARI JAYESH SHARAD; JAIN AMIT; JOSHI ASHISH MOHANIRAJ and GUPTA AVIJIT	25/08/2021 BD/P/ 2021/289		B 62D 63/02	ABSTRACT AN ELECTRIC MOTOR VEHICLE An electric motor vehicle 100 is disclosed for efficient and compact packaging of a power unit 240 and a power transmission system 800. The electric motor vehicle includes a power unit 240 secured on a mounting structure 230 fixed substantially at a middle lower position of a vehicle support framework 110. A power transmission system 800 transmits power from an electric motor 200 to the wheel 840. A transmission housing 300 holds a plurality of components of the power transmission system 800. The transmission housing 300 is pivoted on the mounting structure 230 of the power unit 240 to connect the wheel 840 of the electric motor vehicle 100 with the vehicle support framework 110. The electric motor vehicle 100 mounts the power unit 240 keeping the centre of gravity (CG) of the electric motor vehicle 100 at a central lower location for efficient weight balancing. The transmission housing 300 of the electric motor vehicle 100 operates as a pivot fork. Fig. 6(a)	

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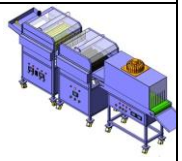
26.	A BARI Fruits and Vegetables Waxing Machine	Bangladesh Agricultural Research Institute Dr. Md. Golam Ferdous Chowdhury, Senior Scientific Officer of Postharvest Technology Division; Md. Hafizul Haque Khan, Chief Scientific Officer of Postharvest Technology Division; Mahfujul Alam, Scientific Officer of Postharvest Technology Division; Dr. Md. Miaruddin, Director Research Wing; Ashfak Ahmed Sabuz, Scientific Officer of Postharvest Technology Division; Dr. Mohammad Mainuddin Molla, Senior Scientific Officer of Postharvest Technology Division; Dr. Muhammad Arshadul Hoque, Senior Scientific	26/08/2021 BD/P/ 2021/290		A 23N 7/00	The invention relates to fruits and vegetables processing machinery, in particular to an electric power operated small scale low cost semi-automated BARI Fruits and Vegetables Waxing Machine. The utility model is intended to provide an attractive organoleptic and nutritional quality of the fruits and vegetables with added value and longer storage time. The fabricated machine comprised three basic units (such as washing, waxing and drying unit) which was made up of stainless steel. Each unit is attached with each other during operation. The dimension of washing and waxing unit were (1160 × 765× 690) mm while the drying unit was (1217× 1310 × 420) mm. The washing unit consists of five brush pad rollers, the waxing unit had five foam pad rollers and the drying unit comprised belt conveyors (1210 × 400) mm, where speed can be adjusted by inverter. The produces are cleaned by detergent and normal water in the washing unit to disinfectant the surface of the produces. In this unit, the fruits are rotated by the brush pad and detergent and water sprayed by the auto controlled spray nozzles. After then fruits are transferred to waxing unit where the edible	

		Officer of Farm Power and Machinery Division and Dr. Md. Nurul Amin, Senior Scientific Officer of Farm Power and Machinery Division				liquid wax are sprayed on the surface of the produces during rotating above the rubber pad. Then, the fruits are passed through drying unit where a rubber belt conveyor is attached and an electric heater is attached on the top with a blower to adhere the wax on the surface of the produces uniformly. The speed of the conveyor and temperature of the drying chamber can be controlled by the digital controller. The structure of the machine is made of stainless steel sheet and angle bar. To evaluate the machine performance, Mangoes, Malta, Lemon and Tomato were used to wax coating with different types of carnauba wax. Results revealed that 900 - 1000 fruits were waxed per hour depending on the size and shape of the produces. The operating cost of the machine was reasonable with minimal time. The waxed sample was found to have shiny and glossy appearance with increased shelf life compared to the control sample (without waxed). Commercial waxing machine purchasing cost is too high and not available in Bangladesh. For that reason the small scale low cost BARI Fruits and Vegetables Waxing Machine is fabricated which costs around 4200~4700$. The parts and equipment's used to manufacture the machines are cheap and available in the local market and easily possible to repair by local workshop avoiding import dependency. So, the developed machine would be beneficial to the small and medium entrepreneurs (SME) level and stakeholders for making fruits and vegetables value added with attractive appearance and longer marketing life also.	

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27.	BARI Vacuum Fried Jackfruit Chips	Bangladesh Agricultural Research Institute Dr. Md. Monirul Islam, Director, Nutrition Unit; Dr. Md. Golam Ferdous Chowdhury, Senior Scientific Officer of Postharvest Technology Division; Md. Hafizul Haque Khan, Chief Scientific Officer of Postharvest Technology Division; Mahfujul Alam, Scientific Officer of Postharvest Technology Division; Dr. Md. Miaruddin, Director Research Wing; Ashfak Ahmed Sabuz, Scientific Officer of Postharvest Technology Division; Dr. Mohammad Mainuddin Molla, Senior Scientific Officer of Postharvest Technology Division and	26/08/2021 BD/P/ 2021/291		A 23L 19/18	The present invention relates to the development of export oriented quality vacuum fried jackfruit chips using vacuum frying technology with attractive organoleptic and nutritional properties. Jackfruit chips are generally prepared from matured khaja type jackfruit. The traditional frying is not feasible to prepare jackfruit chips due to higher sugar content. Higher frying temperature causes browning of fruit by charring and maillard reaction. In that case, vacuum frying technique is an alternative method for producing export oriented quality vacuum fried jackfruit chips. For producing vacuum fried jackfruit chips, the jackfruits needs to process before frying. The harvested matured jackfruit is cut into halves and separated the bulbs. The seeds are removed and bulbs are sliced into 4-5 mm thickness and then packaged in high density poly ethylene package and frozen at -18^{o}C for 24 - 48 hours. After then the frozen slices are fried instantly using BARI Vacuum Frying Machine at 100-130^{o}C for 20-25 minutes. The fried chips are de-oiled using BARI De-oiling Machine at 1400 rpm for 2-3 minutes. Finally the de-oiled chips are packaged and sealed in high-density	

		Dr. Muhammad Arshadul Hoque, Senior Scientific Officer of Farm Power and Machinery Division				polyethylene or metalex foil packages with or without nitrogen gas for storage at ambient temperature. The developed BARI Vacuum Fried Jackfruit Chips processing technology will be beneficial to reduce postharvest losses remarkably by processing and preservation. The healthy fruits chips ensures the supply of the nutrients to the people and technology helps to improve socio-economic status by generating income source to the entrepreneurs and processors through marketing, distribution and exporting.	

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Publication of Filed Patent Application:
No: 06 (Publication date: 15/06/2023)

ক্রমিক নং (Serial no.)	উদ্ভাবনের শিরোনাম (Title of the Invention)	আবেদনকারী ও উদ্ভাবকের নাম Name of the Applicant(s) & Inventor(s)	আবেদন দাখিলের তারিখ ও নম্বর (Filing date & Number)	অগ্রাধিকার নম্বর ও তারিখ Priority number & Date	পেটেন্ট-এর শ্রেণি Classification of Patent (IPCs)	বিষয়বস্তুর সার-সংক্ষেপ (Abstract)	অংকন (Drawing)
28.	A BARI Bed Planter Machine	Bangladesh Agricultural Research Institute Dr. Muhammad Arshadul Hoque, Senior Scientific Officer of Farm Power and Machinery Division; Dr. Md. Nurul Amin, Senior Scientific Officer of Farm Power and Machinery Division; Dr. Md. Abdul Wohab, Ex. Director General (BARI); Dr. Md. Ayub Hossain, Chief Scientific Officer of Farm Power and Machinery Division and Md. Suman Miah, Scientific Officer of Farm Power and Machinery Division	26/08/2021 BD/P/ 2021/292		F 16M 1/00	Bed planting system adds a new era in modern farming system. It saves natural resources in modern production system without reducing yield. It increases yield, reduces production cost and facilitates different crop management. In Bangladesh, farmers are practicing bed planting system for potato, maize, chill vegetables etc. from long ago for protect their crops from waterlog problem due to heavy shower. They make bed manually and it is very laborious, time consuming and costly. They do not know how to use bed planting technology in other crops and they had no idea on bed planting machinery. Also, they had no idea about the crops which will give better result in bed planting. Considering the above facts, BARI have developed a bed planter for reducing labour requirement cost of bed formation and seeding time as well as higher yield and income of farmers. Bed formation, fertilization and seeding can be done in a single operation with this. Operation & maintenance is very easy. It can reduce arsenic absorbs ion in crop. Seed can be sown by bed planter without removing crops residues. This can reduce turnaround time and helps to increase	

						crop intensity in cropping pattern. Every plant and line get border effect that increases both growth and yield of crops. This technology can increase cereal crops yields by 5–20%, pulse crops by 15–35% and fiber crops (Jute) by 10–15%. It also reduces irrigation water by 25–30%. BARI Bed planter is attached with power tiller that can till soil, make bed, apply fertilizer and sow seeds simultaneously in same pass. Seed can be sown on bed either single or double lines and maintaining seed to seed distance following standard agronomy of different crops. In this bed planter, tines are allied in such a way that tilth loose soils are thrown in inner side from left and right side then form bed. A roller behind the rotating blades lightly presses the loose soil and makes the bed compact and uniform in size and shape. The cost of the machine is 4500 Taka. The parts and equipment's used to manufacture the machines are cheap and available in the local market and easily possible to repair by local workshop avoiding import dependency. So, the developed machine would be beneficial to the small and medium entrepreneurs (SME) level and stakeholders for cultivating crops on bed.	

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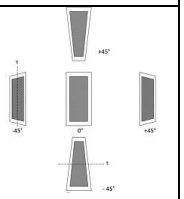
29.	SECURITY DOCUMENTS OR ARTICLES COMPRISING OPTICAL EFFECT LAYERS COMPRISING MAGNETIC OR MAGNETIZABLE PIGMENT PARTICLES AND METHODS FOR PRODUCING SAID OPTICAL EFFECT LAYERS	SICPA HOLDING SA LOGINOV, Evgeny; DESPLAND, Claude-Alain and CALLEGARI, Andrea	26/08/2021 BD/P/ 2021/293	EP EP20194060.8 02/09/2020	B 42D 25/369	The invention relates to the field of the protection of security documents such as for example banknotes and identity documents against counterfeit and illegal reproduction. In particular, the present invention provides security documents and decorative articles comprising one or more optical effect layers (OELs) and methods for producing said OELs, said OELs comprising magnetically oriented platelet-shaped magnetic or magnetizable pigment particles in an at least partially cured coating layer (x10) and exhibiting an eye-catching optical effect thus allowing an observer to easily authenticate said OELs upon titling at viewing/observation angles between about -45° and about +45°.	

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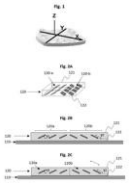
30.	SECURITY MARKING, METHOD AND DEVICE FOR READING THE SECURITY MARKING, SECURITY DOCUMENT MARKED WITH THE SECURITY MARKING, AND METHOD AND SYSTEM FOR VERIFYING SAID SECURITY DOCUMENT	SICPA HOLDING SA LOGINOV, Evgeny; CALLEGARI, Andrea; DINOEV, Todor; DORIER, Jean-Luc; RAEMY, Xavier Cédric and CARNERO, Benito	26/08/2021 BD/P/ 2021/294	EP EP20194057.4 02/09/2020	B 42D 25/305	The invention relates to a security marking (100), a method and a device for reading and decoding the security marking (100), a security document (150) marked with the security marking (100), and a method and a system for verifying and authenticating said security document (150). The security marking (100) comprises a machine readable marking (130) overlapping with a magnetically induced layer (120) of a material including magnetically oriented reflective platelet-shaped magnetic or magnetizable pigment particles with two zones (120a) and (120b) of distinct orientations of the particles. The encoded data on the machine readable marking (130) being decodable only after the data separately read from the two zones (120a) and (120b) are gathered.	

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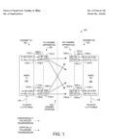
31.	Methods and Apparatus for Orthogonal Stream Spatial Multiplexing and Beamforming	Carlos A. Rios Carlos A. Rios Carlos A. Rios	29/08/2021 BD/P/ 2021/295	US 17/006,731 28/08/2020	H 04B 7/0426	ABSTRACT Methods and apparatus for orthogonal stream spatial multiplexing and beamforming. In one embodiment, a method includes injecting a Data Stream into a transmitter apparatus that splits, modulates, spatially multiplexes and transmit beamforms it into n spatial streams input to corresponding code-controlled selectable polarization antennas that each radiates a stream that is polarization orthogonal to or uncorrelated with the other n-1 radiated streams. The method includes detecting the radiated streams at a receiver apparatus comprising n selectable polarization antennas correspondingly controlled by the same codes. Each receive antenna match-polarization filters the incident radiated stream aggregate to recover one corresponding spatial stream. The n recovered spatial streams are then receive beamformed, spatially demultiplexed, demodulated and recombined into the original Data Stream. As n can be arbitrarily large, orthogonal stream spatial multiplexing and beamforming provides a mechanism for arbitrarily increasing the information rate of a highly directional, fixed frequency and bandwidth wireless channel.	

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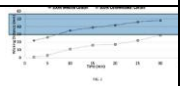
32.	HYBRID MATERIALS & METHODS	Natural Fiber Welding, Inc Luke Michael Haverhals; Shokoofeh Ghasemi; Aaron Kenneth Amstutz; Margaret Kathryn Firman; Spencer Jacob Null and Steven John Zika	31/08/2021 BD/P/ 2021/296	US 63/072,931 31/08/2020	G 01N 19/00	A hybrid material may be configured as a hybrid fabric. An illustrative embodiment of a hybrid fabric may be constructed of two yarns engaged with one another and exhibit a moisture absorbency of ten seconds or less and a differential in moisture spreading speed one a first face of the hybrid fabric compared to that of a second face. Another illustrative embodiment of a hybrid fabric may be constructed of two yarns engaged with one another and exhibit a moisture absorbency of ten seconds or less and a planar wicking rate of at least 2.5 mm/min. Another illustrative embodiment of a hybrid fabric may be constructed of two welded yarns produced via welding processes differently configured such that the resulting welded yarns have one or more differing properties. Illustrative embodiments of such hybrid fabrics include but are not limited to pique and jersey and pique fabrics constructed of cotton.	

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33.	The preparation of nano-sized magnetic materials, strontium hexaferrite for ceramic field	হোসেন মোহাম্মদ মাসুদ, সিনিয়র ইন্ডাষ্ট্রিয়াল লিয়াজোঁ অফিসার Nahid Sharmin, Md. Lutfor Rahman; Md. Furid Ahmed and Bristy Biswas	31/08/2021 BD/P/ 2021/298		G 11B 5/845