

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পেটেন্ট, শিল্প-নকশা ও ট্রেডমার্কস অধিদপ্তর
শিল্প মন্ত্রণালয়
৯১, মতিঝিল বা/এ, ঢাকা-১০০০
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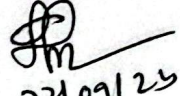
তারিখঃ ১২/০৭/২০২৬ খ্রি.

বিষয়ঃ দাখিলকৃত পেটেন্ট আবেদনসমূহ ওয়েবসাইটে প্রকাশ।

বাংলাদেশ পেটেন্ট আইন, ২০২৩ এর ধারা ১৭(৪) অনুযায়ী ডিপিডি-তে ২০২৫ সালের পেটেন্ট আবেদন নং ১০, ২৬৫, ৩৬০, ৩৭০-৩৭২ ও ২০২৬ সালের পেটেন্ট আবেদন নং ৩৫, ১৪০, ১৫৭, ২১৪, ২২০, ২২৪, ২২৯, ২৩১-২৩৫, ২৪৪ — সর্বমোট ১৯ (উনিশ) টি আবেদন নিম্নবর্ণিত তথ্যাদি সহ অধিদপ্তরের ওয়েবসাইটে (www.dpdt.gov.bd) প্রকাশ করা হল।

- (ক) উদ্ভাবনের শিরোনাম;
- (খ) পেটেন্ট আবেদনকারী ও উদ্ভাবকের নাম;
- (গ) আবেদন দাখিলের তারিখ ও নম্বর;
- (ঘ) অগ্রাধিকার নম্বর ও তারিখ, যদি থাকে;
- (ঙ) পেটেন্ট এর শ্রেণিবিন্যাস;
- (চ) উদ্ভাবনের মূল উপাদান চিত্রায়িত করে এইরূপ অংকন, যদি থাকে;
- (ছ) বিষয়বস্তুর সার-সংক্ষেপ।

সংযুক্তিঃ ২০ (বিশ) পাতা।


মোঃ হাবিবুর রহমান
উপ-পরিচালক (পেটেন্ট)

অনুলিপিঃ

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- ২। সিস্টেম এনালিস্ট, পেটেন্ট, শিল্প-নকশা ও ট্রেডমার্কস অধিদপ্তর। (ওয়েবসাইটে প্রকাশের জন্য)
- ৩। উপ-পরিচালক (পেটেন্ট) (সকল), পেটেন্ট, শিল্প-নকশা ও ট্রেডমার্কস অধিদপ্তর, ঢাকা।
- ৪। মহাপরিচালক মহোদয়ের ব্যক্তিগত সহকারী, পেটেন্ট, শিল্প-নকশা ও ট্রেডমার্কস অধিদপ্তর, ঢাকা।



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Publication of Filed Patent Application
Publication No: 35 & Date: 12 July 2026

(11) Patent registration No and date , (21) Appl. No. BD-P-2025-10 (22) Filed: 09/01/2025	
(23) Priority Data: European Patent Office (EPO), Number :243820677, Date : 25-01-2024.	
(71) Applicant: CERTEST BIOTEC, S.L. of Pol. Industrial Río Gállego II Calle J, N°150840 SAN MATEO DE GÁLLEGO, Nationality -Spain	
(72) Inventors: (0) JAVIER GIMÉNEZ WARREN of c/o Pol. Industrial Río Gállego II Calle J, N°150840 SAN MATEO DE GÁLLEGO, Spain Nationality -Spain, (1) JUAN HEREDERO GARCÍA of c/o Pol. Industrial Río Gállego II Calle J, N°150840 SAN MATEO DE GÁLLEGO, Spain Nationality -Spain, (2) JUAN ENRIQUE MARTÍNEZ OLIVÁN of c/o Pol. Industrial Río Gállego II Calle J, N°150840 SAN MATEO DE GÁLLEGO, Spain Nationality -Spain, (3) ÁLVARO PEÑA MORENO of c/o Pol. Industrial Río Gállego II Calle J, N°150840 SAN MATEO DE GÁLLEGO, Spain Nationality -Spain	
(74) Agent : ISLAM & CO., {app_representative_address}, Bangladesh	
(51) INT. CL. : C07C 29/158	
(54) Invention Title: Ionizable Lipids and Lipid Nanoparticles Containing Thereof	
(57) Abstract An ionizable lipid of formula (I) or a pharmaceutically acceptable salt thereof, or a stereoisomer of any one of them; a lipid nanoparticle comprising the ionizable lipid, particularly, as an encapsulation agent, optionally comprising a pharmaceutically active agent; and a pharmaceutical composition comprising the lipid nanoparticle. A lipid nanoparticle or a pharmaceutical composition comprising thereof for use in medicine, and the use of the lipid nanoparticles as an encapsulating agent. Formula (I)	FIGURE 1 VC-LC-1272 VC-LC-1285 VC-LC-1289



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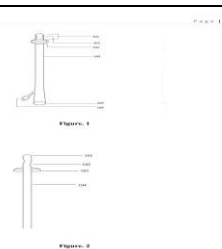
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(11) Patent registration No and date , (21) Appl. No. BD-P-2025-265 (22) Filed: 09/09/2025	
(23) Priority Data: N/A	
(71) Applicant: Military Institute of Science and Technology (MIST) of Mirpur Cantonment, Dhaka-1216, Nationality - Bangladesh	
(72) Inventors: (1) Professor Dr. Mokhlesur Rahman of Mirpur Cantonment, Dhaka-1216, Bangladesh Nationality - Bangladesh	
(74) Agent : Military Institute of Science and Technology (MIST), {app_representative_address}, Bangladesh	
(51) INT. CL. : C02F 1/00	
(54) Invention Title: Development of a Modified Filtration Unit for Safe Drinking Water for a Small Community	
(57) Abstract To outline the procedure for operating and maintaining a modified water filtration unit designed to deliver safe and potable water to small communities using locally available materials and low-energy filtration techniques.	 Figure 1: (a) SiO_2 powder (iv) Conversion of CaCO_3 with $\text{ZrOCl}_2 \cdot 8\text{H}_2\text{O}$ (d) AC



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(11) Patent registration No and date , (21) Appl. No. BD-P-2025-360 (22) Filed: 06/11/2025	
(23) Priority Data: N/A	
(71) Applicant: Professor Dr. Md. Kamruzzaman KHAN of 53 Green Tower, Flat-B/4, Green Road, P.O: New Market, P.S: Kalabagan, Dhaka-1205, Nationality -Bangladesh	
(72) Inventors: (0) Professor Dr. Md. Kamruzzaman KHAN of 53 Green Tower, Flat-B/4, Green Road, P.O: New Market, P.S: Kalabagan, Dhaka-1205, Bangladesh Nationality -Bangladesh	
(74) Agent : Barrister Shaleh Akram Somrat, {app_representative_address}, Bangladesh	
(51) INT. CL. : A61B 18/24	
(54) Invention Title: <u>URINARY CATHETER SYSTEM WITH ENHANCED RETENTION AND DRAINAGE MECHANISMS</u>	
(57) Abstract <u>ABSTRACT</u> <u>URINARY CATHETER SYSTEM WITH ENHANCED RETENTION AND DRAINAGE MECHANISMS</u> The present invention discloses a urinary catheter system (100) comprising a catheter tube (111) with a rounded or oval catheter tip (101), a catheter stem (104) with thin-walled construction and wide internal lumen, drainage eyes/opening (102) positioned very low near the bladder neck, and securing means (103) configured to retain the catheter within a patient's urinary tract. The securing means (103) may comprise internal retention means like disc-shaped retention balloons, external fixation elements including adhesive pads (203, 302), or external collection elements including condom-type configurations (401). The drainage eyes (102) have rounded or oval configuration with smooth margins that are wider towards the lumen to prevent encrustation and blockage. The system provides complete emptying of the bladder with minimal residual urine accumulation, thereby reducing complications associated with urinary tract infections.	
Ref. Figure 1	



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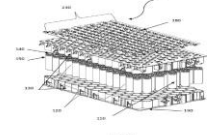
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(11) Patent registration No and date , (21) Appl. No. BD-P-2025-370 (22) Filed: 03/12/2025	
(23) Priority Data: India, Number :202421095712, Date : 04-12-2024.	
(71) Applicant: BAJAJ AUTO TECHNOLOGY LTD. of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India	
(72) Inventors: (1) Abraham Joseph of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India, (2) Madhukar Taru Pawar of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India, (3) Amit Kumar of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India, (4) Chandrashekhar Gulabrao Shitole of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India, (5) Dipu Prakash Date of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India, (6) Naitik Mahesh Panchal of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India	
(74) Agent : ADMELIORA IP, {app_representative_address}, Bangladesh	
(51) INT. CL. : B60L 15/32	
(54) Invention Title: MOTOR CONTROL UNIT FOR AN ELECTRIC VEHICLE	
(57) Abstract ABSTRACT MOTOR CONTROL UNIT FOR AN ELECTRIC VEHICLE A motor control unit (100) for an electric vehicle, comprising: a printed circuit board (PCB) (120) having a plurality of switching devices (250); a heat transfer assembly (150) configured to absorb heat generated by the plurality of switching devices (250); wherein the heat transfer assembly (150) comprises a plurality of thermal absorption blocks (300), each thermal absorption block (300) being spaced apart from one another and positioned to thermally contact a corresponding switching device (250) to absorb the heat generated by the switching devices.	State of Applicant: BAJAJ AUTO TECHNOLOGY LTD. No. of Application: 04 No. of Sheets: 04 Sheet No.: 1/04 NOTES: DRAWING on behalf of ADMELIORA IP Patent & Trademark Attorney Agent for the applicant
DATED THIS ON 03rd DAY OF DECEMBER, 2025	
MOTASSIR AHMED (ADVOCATE) On behalf of ADMELIORA IP Patent & Trademark Attorney Agent of The Applicant	



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(11) Patent registration No and date , (21) Appl. No. BD-P-2025-371 (22) Filed: 03/12/2025	
(23) Priority Data: India, Number :202421095713, Date : 04-12-2024.	
(71) Applicant: Bajaj Auto Technology Ltd of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India	
(72) Inventors: (1) KURIYAN ARIMBOOR of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India, (2) SURESH KUMAR of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India, (3) SINDHUJA MARELLA of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India, (4) UDAY PRAKASH REDDY KOMMURI of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India, (5) HARISH RAMESH BORSE of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India, (6) ADITYA TANWAR of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India	
(74) Agent : ADMELIORA IP, {app_representative_address}, Bangladesh	
(51) INT. CL. : B60L 53/16	
(54) Invention Title: BATTERY PACK CONNECTOR	
(57) Abstract ABSTRACT BATTERY PACK CONNECTOR A battery pack (100), comprising: a plurality of cells (110) enclosed in at-least a casing (130) for placement of plurality of cells (110); wherein the plurality of the cells (110) having both positive (140) contact and negative contact (150) oriented towards a same side of the battery back; at-least a connector (160) connecting the positive contact (140) of one cell (110) with the negative contact (150) of the other cell (110); wherein the connector (160) has at-least one extension (170, 210) at one end for connecting the connector (160) with the cells (110).	State of Applicant: BAJAJ AUTO TECHNOLOGY LTD. No. of Sheets: 03 No. of Application: Sheet No.: 1/03  Fig. 1 NOTES: ADMELIORA IP is the Agent for the Applicant.
DATED THIS ON 03rd DAY OF DECEMBER, 2025	
MOTASSIR AHMED (ADVOCATE) On behalf of ADMELIORA IP Patent & Trademark Attorney Agent of the Applicant	



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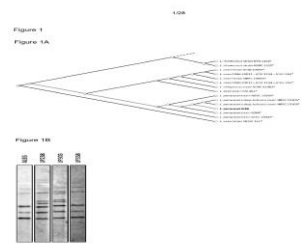
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(11) Patent registration No and date , (21) Appl. No. BD-P-2025-372 (22) Filed: 03/12/2025	
(23) Priority Data: India, Number :202421095710, Date : 04-12-2024.	
(71) Applicant: BAJAJ AUTO TECHNOLOGY LTD. of Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India	
(72) Inventors: (1) ABRAHAM JOSEPH of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India, (2) KURIYAN ARIMBOOR of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India, (3) SINDHUJA MARELLA of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India, (4) ATMARAM DATTATRAYA SAMANT of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India, (5) SAGAR VIJAY VISPUTE of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India, (6) UDAY PRAKASH REDDY KOMMURI of C/o Bajaj Auto Technology Ltd, Mumbai Pune Road, Akurdi, Pune-411035, India	
(74) Agent : ADMELIORA IP, {app_representative_address}, Bangladesh	
(51) INT. CL. : B60L 50/64	
(54) Invention Title: BATTERY ASSEMBLY SYSTEM	
(57) Abstract ABSTRACT BATTERY ASSEMBLY SYSTEM A battery assembly system (100), comprising plurality of cells (110) forming at least a cell assembly (120) arranged in a horizontal plane; a battery casing formed through plurality of covering members and encapsulating the battery assembly system (100); wherein at least a covering member has fins (190) to enhance air cooling for the battery assembly system (100) for effective thermal management; at least a battery management system (BMS) (170) for controlling the operation of the battery assembly system (100); wherein the BMS (170) placed externally on the battery casing.	State of Applicant: BAJAJ AUTO TECHNOLOGY LTD. No. of Application: 07 No. of Sheets: 1/07 FIG. 1 NOTES: ADMELIORA IP is the Agent for the Applicant.
DATED THIS ON 03rd DAY OF DECEMBER, 2025	
MOTASSIR AHMED (ADVOCATE) On behalf of ADMELIORA IP Patent & Trademark Attorney Agent of The Applicant	



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(11) Patent registration No and date , (21) Appl. No. BD-P-2026-35 (22) Filed: 28/01/2026	
(23) Priority Data: European Patent Office (EPO), Number :25154554, Date : 28-01-2025.	
(71) Applicant: Kerry Group Services International Ltd of Prince's Street, Tralee, Co. Kerry, V92 EH11,, Nationality - Ireland	
(72) Inventors: (1) (1) Bañuelos Hortigüela Oscar, address: 18195 Cullar Vega Spain, (2) Olivares Martín Mónica, address: 18199 Cájar Spain (3) Blanco Rojo Ruth, address: 28420 Galapagar Spain, (4) Muñoz Ruiz Manuel Jesus, address: 41013 Sevilla Spain, (5) Gálvez Peralta Julio Juan, address: 18012 Granada Spain, (6) Molina Tijeras Jose Alberto, address: 04867 Macael Spain, (7) Rodriguez Nogales Alba, address: 18198 Huetor Vega Spain, (8) Rodríguez Cabezas Maria Elena, address: 18005 Granada Spain, All of whom are of Spanish nationality. of , Spain Nationality - Spain	
(74) Agent : Barrister Shaleh Akram Somrat, {app_representative_address}, Bangladesh	
(51) INT. CL. : A61K 35/747	
(54) Invention Title: LACTICASEIBACILLUS STRAIN AND USES THEREOF	
(57) Abstract The invention is in the field of biomedicine; and relates to <i>Lactiseibacillus paracasei</i> subsp. <i>tolerans</i> , and a specific bacterial strain or a variant thereof, and their use in the treatment of insulin resistance syndrome, polycystic ovary syndrome, insulin resistance related infertility, gestational diabetes, obesity, and proinflammatory conditions. The invention also relates to a biologically pure culture, or the composition, or the pharmaceutical product, or the pharmaceutical composition, or the nutraceutical composition, or the food supplement, the feed, or the nutritional product comprising the specific bacterial strain or variant thereof, and a therapeutic method comprising administering the specific bacterial strain, or the biologically pure culture, or the composition, or the pharmaceutical product, or the pharmaceutical composition, or the nutraceutical composition, or the food supplement, the feed, or the nutritional product comprising the bacterial strain or a variant thereof.	



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(21) Appl. No. BD-P-2026-140
(22) Filed: 13/04/2026
(23) Priority Data: N/A
(71) Applicant: Khalid Mahmud (Colonel, Bangladesh Army), Head of department, Nuclear Science and Engineering Department, Military Institute of Science and Technology of Tower-04, 7th Floor, Nuclear Science and Engineering Department, Military Institute of Science of Technology, Mirpur Cantonment, Dhaka-1216, Nationality -Bangladesh
(72) Inventors: (0) Khalid Mahmud (Colonel, Bangladesh Army), Head of department, Nuclear Science and Engineering Department, Military Institute of Science and Technology of Tower-04, 7th Floor, Nuclear Science and Engineering Department, Military Institute of Science of Technology, Mirpur Cantonment, Dhaka-1216, Bangladesh Nationality -Bangladesh
(74) Agent : Ram Proshad Debnath, {app_representative_address}, Bangladesh
(51) INT. CL. : B01D 29/60
(54) Invention Title: Development of an automatic and environmentally friendly filtering unit for industrial and power plant effluents
(57) Abstract We Military Institute of Science and Technology, Mirpur Cantonment, Dhaka-1216, Bangladesh. The following specification particularly describes and ascertains the nature of this invention and the manner in which it is to be performed: - Our invention is Development of an automatic and environmentally friendly filtering unit for industrial and power plant effluents. Background: An Effluent Treatment Plant (ETP) is a special treatment system that is used to treat waste water produced by industries and power generating plants to remove chemical, suspended solids, heavy metals, and other pollutants then releasing the water to the environment . Chemical, textile, paint and power generating industries in Bangladesh generate large amounts of wastewater which when untreated can contaminate rivers, lakes and ground water and cause serious health hazards to the population, aquatic life and agricultural produce . ETPs are key in reducing the negative impacts of these environmental hazards by ensuring that the water is purified, recover the useful resources, saving water used through reuse and adherence to the national and international environmental regulations . The traditional ETPs, though, tend to experience difficulties as they are costly to operate, labor intensive, unpredictable treatment efficiency and non-eco-friendly materials, making them frustrating to sustain and scale up [5,6]. A number of studies have been done on various treatment methods such as chemical, biological and membrane-based systems, although most of the systems are not automated, flexible and cost-effective to be used in a large-scale production [7]. Such gaps are bridged by the current study that establishes an automatic, environmentally friendly, and efficient filtering unit specifically designed to suit effluents of industries and power plants [8]. The suggested system is designed to combine innovative filtration technologies, eco-friendly materials and automated controls to decrease the number of people working at it, increase the performance of treatments of various types of effluents, and decrease environmental and operation costs [9]. It also builds on prior research for managing effluent treatment in small and medium industries [10]. Such an innovative solution not only increases the sustainability and efficiency of wastewater management but also provides a solution that can be scaled and implemented by many industries to help in conserving the environment, recover resources, and increase productivity of industries in Bangladesh, and beyond. Method: The modified Effluent Treatment Plant (ETP) was designed with a vertically arranged gravity-driven system and a batch equalization system with chemical reaction support that provides proper support in aiding the efficient and environmentally friendly treatment of wastewater. The system combines consecutive filtration modules and regulated chemical dosing to improve performance of treatment with the least use of energy. The method comprises the implementation of the following components and operational characteristics for treatment of sewerage and dyeing industry wastewater, given below:



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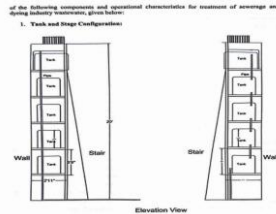


Figure 1 presents the actual installed pilot-scale Effluent Treatment Plant (ETP) setup constructed as a vertical modular unit. The plant is built using a stacked tank arrangement supported by a metal-angle structural frame, with an overall height of approximately 20 feet. The vertical layout allows wastewater to flow through each treatment stage sequentially by gravity, minimizing energy consumption and reducing the need for additional pumping between stages. The figure clearly identifies the following major components:

i. Mixer Machine (Top):

Installed at the top equalization tank to ensure proper mixing of wastewater and dosing chemicals (H_2O_2 and, when required, $NaOH$). It mixes water and chemicals evenly so reactions happen properly and solids don't settle too early. Mixing improves the chemical reaction efficiency and prevents sedimentation.

ii. Stage 1 - Equalization Tank (300 L):

This tank receives raw wastewater and stabilizes flow and pollutant concentration. It provides initial retention time for oxidation and pH correction chemicals and improves overall process stability before filtration. This tank holds water to balance flow and pollutant levels, letting heavier solids settle.

iii. Stage 2 - Fine Crushed Brick Filter (100 L):

The brick filtration tank acts as the first filtration stage, removing coarse suspended solids and reducing turbidity. This stage reduces load on the following carbon filter and prevents premature clogging. Water passes through crushed bricks treated with $FeCl_3$, which helps trap particles and reduce turbidity.

iv. Stage 3 - Activated Carbon Filter (100 L):

This stage removes color, odor, and dissolved organic contaminants through adsorption. It plays a key role in improving water clarity and aesthetic quality, especially for dyeing wastewater. Activated carbon, treated with $ZrOCl_2 \cdot 8H_2O$ was used, to enhance its surface and adsorption of metals and organic pollutants. It traps dissolved organics, removes color and smell, and reduces chemical contaminants, improving overall water quality.

v. Stage 4 - CaO Stone Filter (100 L):

The CaO stone filter supports pH stabilization and aids precipitation of certain impurities. It is particularly effective when influent is acidic (e.g., dyeing effluent) and helps maintain treated water pH within acceptable discharge standards. CaO stones were produced by heating $CaCO_3$ stones at $800^\circ C$ for 4 hours. This filter neutralizes acidic water, helps metals and other impurities settle, and stabilizes pH within safe limits.

vi. Stage 5 - Sand Filter Unit (100 L):

The final polishing stage removes fine suspended solids, remaining turbidity, and residual particles. This improves treated water clarity and ensures stable output quality. Water passes through sand, which traps very fine particles and remaining impurities. This ensures the treated water is clear, visually clean, and safe for discharge or reuse.

i. Metal Angle Structural Frame:

The entire system is mounted on a strong metal-angle frame which provides vertical support and stability. Since the plant height is 20 ft, the frame must be properly anchored and braced to withstand full tank weight and vibration.

Abstract in other language



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(11) Patent registration No and date , (21) Appl. No. BD-P-2026-157 (22) Filed: 23/04/2026
(23) Priority Data: N/A
(71) Applicant: Hossen Mohammed Masud, Industrial Liaison Officer, of BCSIR, Dr. Quadrat-i-Khuda Road, Dhanmondi, Dhaka-1205,, Nationality -Bangladesh
(72) Inventors: (1) Dr. Sonjida Mustafi of Bangladesh Council of Scientific and Industrial Research (BCSIR), Dr.Quadrat-i-Khuda Road, Dhanmondi, Dhaka 1205, Bangladesh Nationality -Bangladesh
(74) Agent : Masud bcsir, {app_representative_address}, Bangladesh
(51) INT. CL. : C04B 33/13
(54) Invention Title: a process for the production of <i>Self Glazed Ceramic Insulator Using Waste Rice Husk Ash and Waste.</i>
(57) Abstract Abstract The invention discloses a formula of a ceramic for an insulator ceramic body and a preparation method of the insulator ceramic body. Ceramic insulators are very important product in world because of zero water absorption, excellent physical, mechanical and chemical properties. Huge amount of materials like rice husk ash, waste glass and other industrial waste are present as waste materials in Bangladesh which are used to produce cost-effective self glaze ceramic insulator. The concept of utilization of solid wastes embraces the basic principles of recovery, recycling and converting to value added products. Recovery and recycling is a well-recognized process. However, it again generates waste which results in a disposal problem. Beneficial effects of a technical scheme of the invention comprise that the formula contains specific proportions of rice husk ash and waste glass (soda lime silica glass) and rice husk ash and waste glass are sintered into Mullite and Wollastonite to improve a mechanical strength and self glazed ceramic body and a hot and cold performance of a ceramic material. The self glazed insulator ceramic body obtains physical properties, insulating properties and mechanical properties. To improve the physical and mechanical properties, the surface of the normal ceramic insulator must be covered with a thin layer of glaze to get zero water absorption and to increase its mechanical strength (modulus of rupture). The glazing process typically requires a number of additional operations and can consume a great deal of time, raw materials and energy. There are some particular ceramic compositions which can develop their own glaze layer by a self-glazing phenomenon, when they are fired under the appropriate conditions. Self glazed ceramic insulators are one of such value added products where rice husk ash and waste glass/soda-lime glass can be used as raw materials. Normal commercial insulators are mainly made in clay, quartz, k-feldspar and Na-feldspar. Self glazed ceramic insulator was made by mixtures containing certain amount of rice husk ash, clay, quartz, soda-lime silica glass powder and k-feldspar. Soda-lime silica glass is used as alternative of Na-feldspar. The samples were fired at different temperatures in the range 1075 – 1150 ⁰ C with soaking time of 1hour and the physico-mechanical properties and microstructure were investigated. The optimum temperature and optimum properties are determined to compare with standard properties of ceramic insulator. The results revealed that the soda lime silica glass powder acts as fluxing agent instead of Na-feldspar when it is used as an additive in ceramic mixture and rice husk ash as silica source. The prepared self glazed ceramic insulator using rice husk ash and soda-lime silica glass powder increases the firing shrinkage and modulus of rupture with increasing temperature and after a certain temperature, these values decrease. The glossiness values increase with increasing firing temperature. The phase formation of the self glazed ceramic insulator indicates mullite, quartz and wollastonite.




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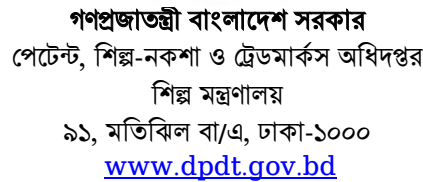
(11) Patent registration No and date , (21) Appl. No. BD-P-2026-214 (22) Filed: 10/06/2026	
(23) Priority Data: N/A	
(71) Applicant: Hossen Mohammad Masud, Senior Industrial Liaison Officer, of Dr. Qudrat-I-Khuda Road, Dhaka-1205,, Nationality -Bangladesh	
(72) Inventors: (1) MD. BADRUL ISLAM, Principal Scientific Officer of BCSIR Rajshahi Laboratories, Binodpur, Rajshahi-6206, Bangladesh Nationality -Bangladesh, (2) FARIDUL ISLAM of BANGLADESH COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH (BCSIR), DR. QUDRAT- I-KHUDA ROAD, DHANMONDI, DHAKA-1205, BANGLADESH, DHAKA, Bangladesh Nationality -Bangladesh, (3) MAHCI AL BASHERA, Scientific Officer of BCSIR Rajshahi Laboratories, Binodpur, Rajshahi-6206, Bangladesh Nationality -Bangladesh, (4) MD. SABBIR HASAN, Scientific Officer of BCSIR Rajshahi Laboratories, Binodpur, Rajshahi-6206, Bangladesh Nationality -Bangladesh, (5) FARHANA JAHAN, Scientific Officer of BCSIR Rajshahi Laboratories, Binodpur, Rajshahi-6206, Bangladesh Nationality -Bangladesh, (6) MD. ARIFUL ISLAM, SO of DR. QUDRAT-I-KHUDA ROAD, DHANMONDI, DHAKA-1205, Bangladesh Nationality -Bangladesh, (7) MRIDUL SHAHA, RESEARCH CHEMIST of BCSIR, DR. QUADRAT-E-KHUDA ROAD, DHANMONDI, DHAKA-1205, Bangladesh Nationality - Bangladesh	
(74) Agent : Masud bcsir, {app_representative_address}, Bangladesh	
(51) INT. CL. : C12N 15/82	
(54) Invention Title: “A METHOD FOR THE SYNTHESIS OF NOVEL ETHEPHON-THAM SALTS AND ITS USE IN REGULATING IN VITRO SHOOT AND ROOT DEVELOPMENT OF POTATO MICRO PLANTS”	
(57) Abstract A method is disclosed for synthesizing Ethephon-THAMs and using it as a controlled ethylene-releasing agent in potato tissue culture. The invention enables selective enhancement of shoot or root development and improves micropropagation efficiency.	Bangladesh Council of Scientific and Industrial Research (BCSIR) Page 8 of 8 



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(23) Priority Data: N/A
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(74) Agent : Kazi Faizul Bari, {app_representative_address}, Bangladesh
(51) INT. CL. : F04D 15/00
(54) Invention Title: Retrofit Water Pump Control System with Pulse-Emulated Actuation, Runtime-State Recovery, and Dynamic Sensor Processing.
FIG 1: Illustrates the overall system architecture of the retrofit architecture system integrated with existing industrial water pump.
(57) Abstract The present invention relates to a retrofit network-connected water pump automation and protection system, configured for industrial, commercial, and residential pump management applications. The invention is designed to integrate with existing magnetic contactor-based pump starter panels, including Direct-On-Line (DOL) and Star-Delta systems, through lowvoltage relay-based integration with existing magnetic contactor starter architectures. The invention incorporates a pulse-based electromechanical actuation architecture configured to emulate manual START and STOP push-button operations through predefined relay pulses, thereby enabling non-invasive retrofit automation of existing industrial control panels. The system further includes a memory-based Power-Interruption State Retention Architectureutilizing Non-Volatile Storage (NVS) memory for preserving operational state, remaining timer duration, and runtime information during electrical power interruptionthrough event-triggered non-volatile memory synchronization and temporary capacitor-assisted energy reserve operation, wherein the controller automatically restores operation from the remaining runtime condition after power recovery. The invention additionally comprises a dynamic hybrid sensor abstraction architecture capable of automatically adapting between resistance-based probe sensing systems and UART-based ultrasonic sensing systems through firmware-controlled operational logic. An edge-processing automation engine performs autonomous local decision-making, emergency fault protection, dry-run prevention, overload monitoring, phase fault detection, and offline automation independently of continuous cloud connectivity.

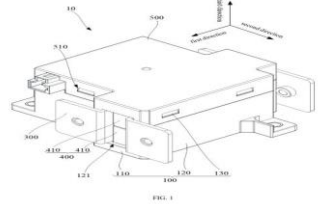


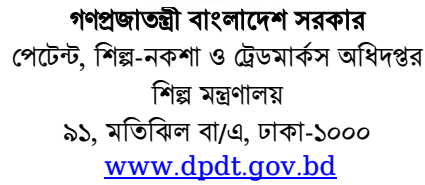
(11) Patent registration No and date , (21) Appl. No. BD-P-2026-224 (22) Filed: 21/06/2026	
(23) Priority Data: United Kingdom, Number :25117003, Date : 18-07-2025.	
(71) Applicant: Nokia Technologies Oy of Karakaari 7, Espoo 02610, Nationality -Finland	
(72) Inventors: (0) Nokia Technologies Oy of Karakaari 7, Espoo 02610, Finland Nationality -Finland	
(74) Agent : A.B.M. Sohailud Doulah, Trademark Agent, {app_representative_address}, Bangladesh	
(51) INT. CL. : H04W 24/10	
(54) Invention Title: REPORTING OF INTERFERENCE AWARE CHANNEL QUALITY INFORMATION	
(57) Abstract Example embodiments of the present disclosure are directed to reporting of interference aware channel quality information. In a method: a first apparatus obtains channel quality information for a first transmission between the first apparatus and a second apparatus, the channel quality information being indicative of an interference caused by at least a second transmission of at least a further second apparatus; and the first apparatus transmits, to at least the second apparatus, the channel quality information.	



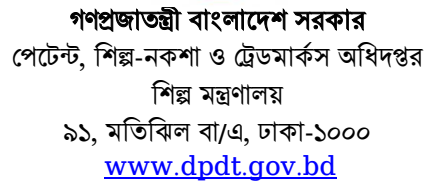
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(11) Patent registration No and date , (21) Appl. No. BD-P-2026-229 (22) Filed: 23/06/2026	
(23) Priority Data: China, Number :2025108519842, Date : 24-06-2025.	
(71) Applicant: Xiamen Hongfa Electric Power Controls Co.,Ltd. of No.93, Yinong Road, Haicang District, Xiamen, Fujian Province, 361027, Nationality -China	
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(74) Agent : A.B.M. Sohailud Doulah, Trademark Agent, {app_representative_address}, Bangladesh	
(51) INT. CL. : H01H 50/02	
(54) Invention Title: RELAY	
(57) Abstract The present application relates to a relay, including: a housing; a contact assembly, disposed in the housing; a lead-out terminal, having one end disposed in the housing and electrically connected to the contact assembly, and another end extending out of the housing; and a positioning member, fixedly mounted to the housing, wherein the positioning member is connected to the lead-out terminal to position the lead-out terminal, so as to position at least a contact gap of the contact assembly. In this way, the positioning member is able to position the lead-out terminal at least in a contact direction of the contact assembly, so as to position the lead-out terminal accurately with respect to the housing, to improve the assembly accuracy of the lead-out terminal, and thus to position the contact gap at least in the contact assembly, so as to improve the reliability of the contact gap, thereby ensuring the use performance of the relay.	
	



(11) Patent registration No and date , (21) Appl. No. BD-P-2026-231 (22) Filed: 24/06/2026	
(23) Priority Data: United States of America, Number :63837272, Date : 02-07-2025.	
(71) Applicant: Nokia Technologies Oy of Karakaari 7, Espoo 02610, Nationality -Finland	
(72) Inventors: (0) Nokia Technologies Oy of Karakaari 7, Espoo 02610, Finland Nationality -Finland	
(74) Agent : A.B.M. Sohailud Doulah, Trademark Agent, {app_representative_address}, Bangladesh	
(51) INT. CL. : G06F 9/30	
(54) Invention Title: VIDEO CODING	
(57) Abstract An apparatus comprising: at least one processor; and at least one memory storing instructions that, when executed by the at least one processor, cause the apparatus at least to perform: defining or generating a picture position syntax element comprising information related to a picture position value of a current picture of a source video; and signaling the picture position syntax element comprising the information related to the picture position value in a bitstream, wherein the picture position value is intended to be used for coding the current picture.	



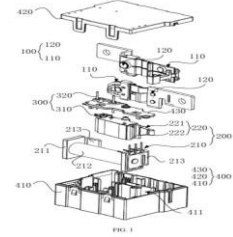
(11) Patent registration No and date , (21) Appl. No. BD-P-2026-232 (22) Filed: 24/06/2026	
(23) Priority Data: United States of America, Number :63837286, Date : 02-07-2025.	
(71) Applicant: Nokia Technologies Oy of Karakaari 7, Espoo 02610, Nationality -Finland	
(72) Inventors: (0) Nokia Technologies Oy of Karakaari 7, Espoo 02610, Finland Nationality -Finland	
(74) Agent : A.B.M. Sohailud Doulah, IP Attorney, {app_representative_address}, Bangladesh	
(51) INT. CL. : H04N 19/00	
(54) Invention Title: VIDEO CODING	
(57) Abstract An apparatus comprising: at least one processor; and at least one memory storing instructions that, when executed by the at least one processor, cause the apparatus at least to perform: defining or assigning a reference picture offset override value for a current picture; and signaling, in the current picture, the reference picture offset override value, wherein the reference picture offset override value is intended to be used as a distance between the current picture and a reference picture for coding of the current picture.	



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(23) Priority Data: China, Number :2025108728566, Date : 26-06-2025.	
(71) Applicant: Xiamen Hongfa Electric Power Controls Co., Ltd. of No. 93 Yinong Road, Haicang District, Xiamen, Fujian 361027, Nationality -China	
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(74) Agent : A.B.M. Sohailud Doulah, IP Attorney, {app_representative_address}, Bangladesh	
(51) INT. CL. : H01H 50/54	
(54) Invention Title: RELAY	
(57) Abstract The present disclosure relates to the technical field of electronic control devices, and in particular to a relay. The relay includes a contact part, a magnetic circuit part, and an auxiliary contact part. The contact part includes a movable contact member and a stationary contact member; the magnetic circuit part includes a coil assembly and an armature assembly; the armature assembly is disposed at a side of at least part of the coil assembly in a direction perpendicular to an axial direction of the coil assembly; the armature assembly includes a bracket and an armature body; the bracket includes a body portion and a driving portion; the armature body is mounted on the body portion; and the driving portion is connected to at least one movable contact member in the contact part to drive the corresponding movable contact member to be in contact with or separated from the stationary contact member; the auxiliary contact part includes an auxiliary movable contact member and an auxiliary stationary contact member, and the auxiliary movable contact member is connected to and moves with the driving portion to be in contact with or disconnected from the auxiliary stationary contact member, so as to indicate a contact state of the contact part. The relay can reduce the space occupied by the auxiliary switch inside the relay by optimizing its own structure, so as to satisfy the miniaturization design requirements of the relay. (FIG. 3)	

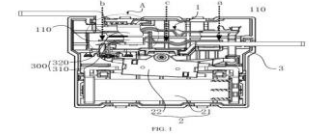




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(23) Priority Data: China, Number :2025108728528, Date : 26-06-2025.	
(71) Applicant: Xiamen Hongfa Electric Power Controls Co., Ltd. of No. 93 Yinong Road, Haicang District, Xiamen, Fujian 361027, Nationality -China	
(72) Inventors: (0) Xiamen Hongfa Electric Power Controls Co., Ltd. of No. 93 Yinong Road, Haicang District, Xiamen, Fujian 361027, China Nationality -China	
(74) Agent : A.B.M. Sohailud Doulah, IP Attorney, {app_representative_address}, Bangladesh	
(51) INT. CL. : H01H /	
(54) Invention Title: RELAY	
(57) Abstract The present disclosure relates to the technical field of electronic control devices, and in particular to a relay. The relay includes a contact part. The contact part includes a movable contact assembly and a stationary contact assembly; a movable contact member of the movable contact assembly corresponds to the stationary contact assembly; The contact part further includes a magnetic conduction group, the magnetic conduction group includes a movable magnetic conductor and a stationary magnetic conductor, the movable magnetic conductor is disposed between a middle position and the swing end of the movable contact member, and at least part of the movable magnetic conductor is fixed to the movable contact member; the stationary magnetic conductor is positionally fixed relative to the stationary contact assembly and at least part of the stationary magnetic conductor is located on a side of the movable contact member facing the corresponding stationary contact assembly, so that the two are capable of forming a magnetic loop and attract each other based on a magnetic field generated when a current flows through the movable contact member and/or the stationary contact assembly, and at least the stability of a part of the movable contact member where the movable magnetic conductor is mounted is enhanced, and a degree to which the swing end warps due to deformation caused by an Ampere force acting on the middle position of the movable contact member is reduced. The relay can improve the contact stability of the contact part in the closed state by optimizing its own structure, improving the safety performance of the relay. (FIG. 2)	





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(23) Priority Data: N/A	
(71) Applicant: Walton Hi-Tech Industries PLC. of Plot No-1088, Block-i, Road-Sabrina Sobhan 5th Avenue, Bashundhara, Vatara, Dhaka, Nationality -Bangladesh	
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(74) Agent : Syed, {app_representative_address}, Bangladesh	
(51) INT. CL. : B22D 27/04	
(54) Invention Title: An in-situ cooling tube casting method for a sand-cast aluminum thermoforming mold.	
(57) Abstract An in-situ cooling tube casting method for a sand-cast aluminum thermoforming mold is disclosed. The method comprises incorporating at least one cooling tube circuit within a sand mold prior to casting, positioning the cooling tube to form one or more circuits having inlet and outlet ends, and circulating a cooling medium through the cooling tube from before pouring of molten aluminum to completion of solidification. Molten aluminum is then poured into the sand mold and allowed to solidify under continuous cooling. The continuous circulation of the cooling medium prevents thermal distortion, deformation, or melting of the cooling tube due to exposure to molten metal, while also controlling heat extraction and solidification behavior of the cast mold. The cooling tube is formed from a heat-conductive material having a melting point higher than aluminum, such as copper or steel. In an embodiment, multiple cooling tube circuits may be provided and, after casting, two or more circuits may be connected externally to form a single circuit with one inlet and one outlet, since the tube ends remain outside the mold while only the intermediate portions are embedded within the casting. The cooling circuits are supported within the sand mold using suitable supports to maintain position during casting. The cooling medium may be water at room temperature or chilled water, with flow rate adjusted according to cooling and shrinkage requirements. The method reduces or eliminates post-casting machining and secondary joining operations for cooling tube installation, thereby simplifying manufacturing and improving thermal performance, dimensional stability, and mold life.	Applicant name: Walton Hi-Tech Industries PLC. Applicant Address: Figure 01: Illustration of an in-situ casting setup