

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পেটেন্ট, শিল্প-নকশা ও ট্রেডমার্কস অধিদপ্তর
শিল্প মন্ত্রণালয়
৯১, মতিঝিল বা/এ, ঢাকা-১০০০।
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নং-৩৬.০৮.০০০০.২০০.১৬.০০১.২২. ৪০২

তারিখঃ ২০/০৭/২০২৬ খ্রি.

বিষয়ঃ মঞ্জুরকৃত পেটেন্ট আবেদনসমূহ প্রকাশ

উপর্যুক্ত বিষয়ের প্রেক্ষিতে জানানো যাচ্ছে যে, অধিদপ্তরে দাখিলকৃত পেটেন্ট আবেদনসমূহের মধ্যে ১৩ (তের) টি পেটেন্ট (২০২২ সালের পেটেন্ট আবেদন নং-২১৯, ২২৬, ২৫৮, ৩৭০, ৩৯৫, ৪০৮; ২০২৩ সালের পেটেন্ট আবেদন নং-৯৩, ১০২, ১৮৬, ২৪৩, ২৯৬; ২০২৪ সালের পেটেন্ট আবেদন নং- ১৯০; ২০২৫ সালের পেটেন্ট আবেদন নং- ৩৫৯) মঞ্জুর করা হয়েছে। মঞ্জুরকৃত উক্ত পেটেন্ট আবেদনসমূহ বাংলাদেশ পেটেন্ট আইন, ২০২৩ এর ধারা ২৪(২)(ক) মোতাবেক প্রকাশ করা হলো।

সংযুক্তিঃ ১৩ (তের) পাতা।


২০/০৭/২৬
মোঃ হাবিবুর রহমান
উপ-পরিচালক (পেটেন্ট)

অনুলিপিঃ

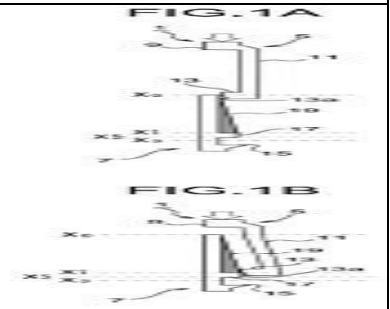
- ১। পরিচালক (সকল), পেটেন্ট, শিল্প-নকশা ও ট্রেডমার্কস অধিদপ্তর, ঢাকা।
- ২। সিস্টেম এনালিস্ট, পেটেন্ট, শিল্প-নকশা ও ট্রেডমার্কস অধিদপ্তর। (ওয়েবসাইটে প্রকাশের জন্য)
- ৩। উপ-পরিচালক (পেটেন্ট) (সকল), পেটেন্ট, শিল্প-নকশা ও ট্রেডমার্কস অধিদপ্তর, ঢাকা।
- ৪। মহাপরিচালক মহোদয়ের ব্যক্তিগত সহকারী, পেটেন্ট, শিল্প-নকশা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



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**Publication of Granted Patent
No.: 15 & Date: July 20, 2026**

(11) Patent registration No and date	1007114, 14/05/2026
(21) Appl. No.	BD-P-2022-219
(22) Filed:	21/06/2022
(23) Priority Data:	Japan, Number :2021104597, Date : 24-06-2021.
(71) Applicant:	JFE STEEL CORPORATION of 2-3, Uchisaiwai-cho 2-chome, Chiyoda-ku, Tokyo 100-0011, Nationality -Japan
(72) Inventors:	(1) Kazuomi ICHIKAWA of c/o Intellectual Property Dept., JFE STEEL CORPORATION, 2-3, Uchisaiwai-cho 2-chome, Chiyoda-ku, Tokyo 100-0011, Japan Nationality -Japan
(74) Agent :	Remfry & Son Limited, {app_representative_address}, Bangladesh
(51) INT. CL. :	F16L 9/02
(54) Invention Title:	MECHANICAL JOINT, JOINT-EQUIPPED STEEL PIPE, METHOD FOR MANUFACTURING JOINT-EQUIPPED STEEL PIPE, STRUCTURE, METHOD FOR INSTALLING STRUCTURE, AND A METHOD FOR DESIGNING MECHANICAL JOINT
(57) Abstract	The object is to provide a mechanical joint, a joint-equipped steel pipe, a method for manufacturing a joint-equipped steel pipe, a structure, a method for installing a structure, and a method for designing a mechanical joint that reduce a push-in load required for fitting to improve installability without bringing about an increase in processing costs and a reduction in strength. A mechanical joint 1 includes an inner joint pipe 5 and an outer joint pipe 7, in which either the inner joint pipe 5 or the outer joint pipe 7 includes split pieces 11 split at regular intervals in a circumferential direction and capable of bending in a radial direction, a protrusion 13 formed on an outer circumferential face of the inner joint pipe 5, an engagement part 17 formed on an inner circumferential face of the outer joint pipe 7 and being engaged with the protrusion 13, and an inclined face 19 provided in the outer joint pipe 7 closer to a tip than the engagement part 17 is and making contact with the protrusion 13 to bend the split pieces 11 in cooperation with the protrusions 13. The inclined face 19 is provided continuously from an end of the outer joint pipe 7 to the engagement part 17.





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(11) Patent registration No and date	1007115, 14/05/2026
(21) Appl. No.	BD-P-2022-226
(22) Filed:	23/06/2022
(23) Priority Data:	Japan, Number :2021104595, Date : 24-06-2021.
(71) Applicant:	JFE STEEL CORPORATION of 2-3, Uchisaiwai-cho 2-chome, Chiyoda-ku, Tokyo 100-0011, Nationality -Japan
(72) Inventors:	(1) Kazuomi ICHIKAWA of c/o Intellectual Property Dept., JFE STEEL CORPORATION, 2-3, Uchisaiwai-cho 2-chome, Chiyoda-ku, Tokyo 100-0011 , Japan Nationality -Japan
(74) Agent :	Remfry & Son Limited, {app_representative_address}, Bangladesh
(51) INT. CL. :	F16L 9/02
(54) Invention Title:	MECHANICAL JOINT, JOINT-EQUIPPED STEEL PIPE, METHOD FOR MANUFACTURING JOINT-EQUIPPED STEEL PIPE, STRUCTURE, METHOD FOR INSTALLING STRUCTURE, AND METHOD FOR DESIGNING MECHANICAL JOINT.
(57) Abstract	The object is to reduce a push-in load required for fitting without bringing about an increase in processing costs and a reduction in strength. A mechanical joint 1 according to the present invention includes an inner joint pipe 5 and an outer joint pipe 7 and includes split pieces 11 that can bend in a radial direction, a protrusion 13, an engagement part 17, and a guide part 19. The split pieces 11 are grouped into a plurality of groups satisfying the following conditions (1) and (2), and timing to reach maximum bending is shifted for each split pieces 11 of the same group in a fitting process: (1) the axial positions of the split pieces belonging to the same group causing the maximum bending on the guide part are the same, and the axial positions are different for each group; and (2) in the split pieces belonging to the same group, connecting adjacent circumferential centers to each other with a straight line forms a straight line passing through a pipe center or a polygon whose center of gravity matches the pipe center.

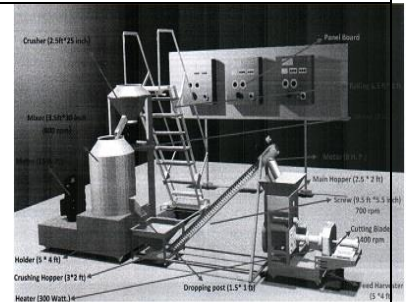




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(11) Patent registration No and date	1007124, 14/05/2026
(21) Appl. No. BD-P-2022-258	
(22) Filed: 25/07/2022	
(23) Priority Data:	N/A
(71) Applicant:	Sher-e-Bangla Agricultural University of Sher-e-Bangla Nagar, Dhaka-1207 , Nationality -Bangladesh
(72) Inventors:	(1) Md. Masud Rana, Assistant Professor of Department of Fishing and Post Harvest Technology, Faculty of Fisheries, Aquaculture and Marine Science, Sher-e-Bangla Agricultural University, Sher-e-Bangla Nagar, Dhaka, Bangladesh Nationality -Bangladesh
(51) INT. CL. :	A23K 50/80
(54) Invention Title:	Development of Locally Engineered Low Cost Farm Based Floating Fish Feed Mill (SAU Feed Mill-01)
(57) Abstract	The aim of this invention is to develop a new unique floating farm-based fish feed mill for minimizing the entire fish production cost. Study also investigates the drying kinetics, energy analysis and milling performance of the invented farm based low-cost floating feed mill. The machine uses advanced milling technology so that it can produce food continuously for 10-12 hours, where it is possible to produce 70-80 kg of floating and 150- 170 kg sinking feed per hour. There are three main parts of this machine are crusher, mixture and extruder each of the part can perform independently. The whole operation controlled by five motors having capacity 20, 10, 8, 0.5 and 0.5 H.P., respectively. The machine has 4 blade chambers, the rotate speed of crushing chamber, mixing chamber, screw chamber, hopper chamber and cutting chamber are 850, 800, 700, 700 and 1400 rpm. SAU invented farm based low cost floating feed mill able to produce feed having diameter 0.5, 0.8, 1.0, 1.5, 2.0, 2.5 and 3.0 mm, respectively. The newly invented feed mill is able to control the moisture content of the final products ranges between 10-12% based on the raw materials used. The protein, fat, fiber, ash and calcium content of the feed produced from the machine ranges between 20-35, 4-6, 10-14, 18-23 and 1-3%, respectively. Floating feed having floating ability 40-50 min that depends on the size of feed as well as raw materials used. This study reveals that, SAU invented feed mill can produce different sizes of feed consumed by fish, duck, chicken and other birds. The newly invented feed mill will make a significant contribution to reduce the production cost of fish farming by producing safe feed at low cost to the farmers. It can also play a leading role in earning more profits to the fish fanners which will enrich the fisheries sector as well as the economy of Bangladesh.

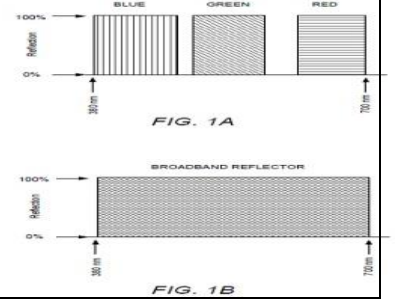




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**Publication of Granted Patent
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(11) Patent registration No and date	1007125, 25/06/2026
(21) Appl. No.	BD-P-2022-370
(22) Filed:	13/11/2022
(23) Priority Data:	United States of America, Number :63278949, Date : 12-11-2021.
(71) Applicant:	VIAVI Solutions Inc. of 1445 South Spectrum Blvd, Suite 102, Chandler, Arizona 85286, Nationality - United States of America
(72) Inventors:	(1) DELST, Cornelis Jan of 700 Iron Springs Road, Fairfax, CA 94930, United States of America Nationality -United States of America
(74) Agent :	MUNSHI & ASSOCIATES, {app_representative_address}, Bangladesh
(51) INT. CL. :	H04N 5/235
(54) Invention Title:	An Article Including An Image Including Two Or More Types Of Pixels
(57) Abstract	An article, including a substrate; an image printed on the substrate; in which the image includes two or more types of pixels; in which the two or more types of pixels are chosen from an RGB pixel, an RGBW pixel, and a hybrid pixel; and in which at least one type of pixel, of the two or more types of pixels, includes an optically variable pigment is disclosed. A method of making and using the article is also disclosed.

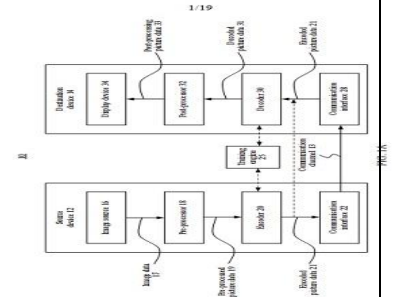




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**Publication of Granted Patent
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(11) Patent registration No and date	1007130, 25/06/2026
(21) Appl. No.	BD-P-2022-395
(22) Filed:	04/12/2022
(23) Priority Data:	China, Number :2021114709795, Date : 03-12-2021.
(71) Applicant:	HUAWEI TECHNOLOGIES CO., LTD of Huawei Administration Building, Bantian, Longgang District, Shenzhen, Guangdong 518129, Nationality -China
(72) Inventors:	(1) GUO, Tiansheng of Huawei Administration Building, Bantian, Longgang District, Shenzhen, Guangdong 518129, China Nationality -China, (2) WANG, Jing of Huawei Administration Building, Bantian, Longgang District, Shenzhen, Guangdong 518129, China Nationality -China
(74) Agent :	REMFREY & SON LIMITED, {app_representative_address}, Bangladesh
(51) INT. CL. :	H03M 13/37
(54) Invention Title:	IMAGE ENCODING AND DECODING METHOD AND APPARATUS
(57) Abstract	This application provides an image encoding and decoding method and apparatus. The image encoding method in this application includes: obtaining a to-be-processed first image feature; performing non-linear transformation processing on the first image feature to obtain a processed image feature, where the non-linear transformation processing sequentially includes a first non-linear operation, convolution processing, and an element-wise multiplication operation; and performing encoding based on the processed image feature to obtain a bitstream. This application can avoid limitation on a convolutional parameter, to implement efficient non-linear transformation processing in an encoding/decoding network, and further improve rate-distortion performance of an image/video compression algorithm.





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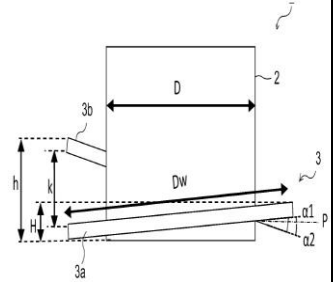
(11) Patent registration No and date	1007126, 25/06/2026
(21) Appl. No.	BD-P-2022-408
(22) Filed:	15/12/2022
(23) Priority Data:	European Patent Office (EPO), Number :212171920, Date : 22-12-2021.
(71) Applicant:	SICPA HOLDING SA of Avenue de Florissant 41 1008 Prilly, Nationality -Switzerland
(72) Inventors:	(1) HARDMAN, Daniel of Route des Areneys 13, 1806 St. L��gier-La-Chi��saz, Switzerland Nationality -United States of America, (2) SUICHIES, Bart of Chemin des Osches 52, 1806 St. L��gier-La-Chi��saz, Switzerland Nationality -Netherlands, (3) NICOLOV, Kalin of PO Box 1106, 1260 Nyon, Switzerland Nationality -Switzerland
(74) Agent :	Advanced IP Law Firm, {app_representative_address}, Bangladesh
(51) INT. CL. :	H04W 8/08
(54) Invention Title:	METHOD AND SYSTEM FOR VALIDATING TRANSFERRING DATA BETWEEN COMMUNICATION DEVICES
(57) Abstract	The present invention relates to the technical field of the transfer of data, such as, for example, between Internet of Things (IoT) devices. Particularly, the invention relates to the technical field of the transfer of data between a first and a second communication devices in an untrusted environment.



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(11) Patent registration No and date	1007110, 14/05/2026
(21) Appl. No.	BD-P-2023-93
(22) Filed:	23/03/2023
(23) Priority Data:	Japan, Number :2022047694, Date : 24-03-2022.
(71) Applicant:	
(72) Inventors:	
(74) Agent :	Remfry & Son Limited, {app_representative_address}, Bangladesh
(51) INT. CL. :	E02D 5/28
(54) Invention Title:	SCREWED STEEL PIPE PILE, METHOD OF DESIGNING SCREWED STEEL PIPE PILE, METHOD OF MANUFACTURING SCREWED STEEL PIPE PILE, AND METHOD OF CONSTRUCTING SCREWED STEEL PIPE PILE
(57) Abstract	Provided are a screwed steel pipe pile, a designing method, a manufacturing method, and a construction method regarding the screwed steel pipe pile, capable of performing construction suitable for modes of ground such as soft ground and hard ground without adversely affecting the bearing capacity. A screwed steel pipe pile 1 according to the present invention includes two or more arc-shaped rotary blades 3, which are formed by radially dividing a disc or a donut-shaped disc larger than an outer diameter of a steel pipe 2, the rotary blades being continuously provided at an end of the steel pipe 2 in a circumferential direction, in which an attachment angle of a lowermost blade 3a, which is a rotary blade 3 disposed at a lowermost position of the steel pipe 2 among the rotary blades 3, is smaller than an attachment angle of an uppermost blade 3b, which is a rotary blade 3 disposed at an uppermost position of the steel pipe 2 among the rotary blades 3.

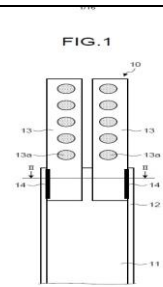




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**Publication of Granted Patent
No.: 15 & Date: July 20, 2026**

(11) Patent registration No and date	1007116, 14/05/2026
(21) Appl. No.	BD-P-2023-102
(22) Filed:	04/04/2023
(23) Priority Data:	Japan, Number :2022064478, Date : 08-04-2022.
(71) Applicant:	
(72) Inventors:	
(74) Agent :	Remfry & Son, {app_representative_address}, Bangladesh
(51) INT. CL. :	E04B 1/24
(54) Invention Title:	STEEL FRAME MEMBER, JOINT STRUCTURE, COMPOSITE STRUCTURE, AND METHOD OF CONSTRUCTING COMPOSITE STRUCTURE
(57) Abstract	In order to shorten a construction time by simplifying construction of vertically joining steel frame members and reduce costs required for the construction, there is provided a steel frame member to be used in a composite structure including concrete and a steel frame member disposed in the concrete, in which a fixing steel plate to be embedded by the concrete is provided at at least one end. The fixing steel plate is provided on an inner surface side or an outer surface side of the steel frame member. A protrusion is formed on at least a part of a surface of the steel frame member. There is provided a joint structure in a composite structure including concrete and a steel frame member disposed in the concrete, the joint structure connecting a first steel frame member and a second steel frame member in an axial direction of the composite structure, in which a first fixing steel plate is provided at an end of the first steel frame member, and at least one of an outer surface and an inner surface of the second steel frame member is disposed along the first fixing steel plate.

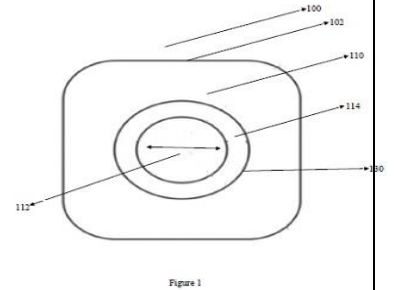




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(11) Patent registration No and date	1006963, 13/05/2025
(21) Appl. No. BD-P-2023-186	
(22) Filed: 16/07/2023	
(23) Priority Data:	N/A
(71) Applicant:	Professor Dr. Md. Kamruzzaman KHAN of 53 Green Tower, Flat-B/4, Green Road, P.O: New Market, P.S: 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 :	MentorIP, {app_representative_address}, Bangladesh
(51) INT. CL. :	A61F 5/445
(54) Invention Title:	TWO-PIECE DEVICE FOR COLLECTING HUMAN EXCRETA THROUGH STOMA IN OSTOMY PATIENTS.
(57) Abstract	The present invention relates to a two-piece device for collecting human excreta through stoma in ostomy patients. The device (100) comprises of a wafer (102); an adjustable excreta collecting bag (116) attached to the front side (110) of the wafer (102); an air filter (134); a leakage prevention bag (124); and a belt (126). The leakage prevention bag (124) is attached to the backside (104) of the wafer (102) extending from inner margin (132) of the adhesive inner layer (108) towards the pre-formed central opening (112) and protrudes to the front side (110) of the wafer (102) through the pre-formed central opening (112), forming free ends which are directed inside the adjustable excreta collecting bag (116) so as to pass the excreta directly inside the adjustable excreta collecting bag (116), preventing leakage of the excreta to sides of the wafer (102).





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**Publication of Granted Patent
No.: 15 & Date: July 20, 2026**

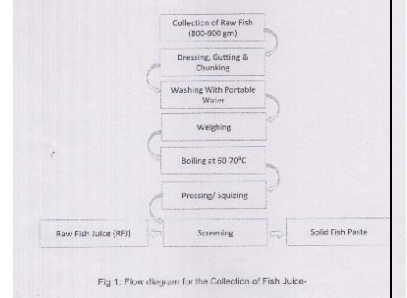
(11) Patent registration No and date	1007127, 25/06/2026
(21) Appl. No.	BD-P-2023-243
(22) Filed:	05/10/2023
(23) Priority Data:	Republic of Korea, Number :1020220132523, Date : 14-10-2022.
(71) Applicant:	KOREA ZINC CO., LTD. of 542 Gangnam-daero, Gangnam-gu, Seoul 06110, Nationality -Republic of Korea
(72) Inventors:	(1) CHOI, Heon Sik of Park-3101, 234 Beonyeong-ro, Nam-gu, Ulsan 44696, Republic of Korea Nationality -Republic of Korea, (2) KANG, Sung Moon of 103-1010, 18 Seoyeongnam 1-gil, Onsan-eup, Ulju-gun, Ulsan 45003, Republic of Korea Nationality -Republic of Korea
(74) Agent :	Shahid & Alliance, {app_representative_address}, Bangladesh
(51) INT. CL. :	B01J 23/745
(54) Invention Title:	METHOD FOR MANUFACTURING HIGH-GRADE REFINED IRON OXIDE FROM IRON OXIDE AS BY-PRODUCT OF ZINC SMELTING PROCESS
(57) Abstract	The present disclosure discloses a method for refining an iron oxide that is a by-product of a zinc smelting process, the method including a roasting process of roasting the iron oxide, a washing process of washing a roasted iron oxide cake with a washing water, and a filtering process of filtering the washed iron oxide cake, thereby providing refined iron oxide. <pre>graph TD IO[Iron oxide] --> S100[S100 - Roasting process] S100 --> C1[Cake] C1 --> S200[S200 - Washing process] W[Washing water] --> S200 S200 --> C2[Cake] C2 --> S300[S300 - First filtering process] S300 --> RIO[Refined iron oxide] S300 --> C3[Cake] C3 --> S400a[S400 - Selective zinc precipitation process] S400a --> ZC[Zinc carbonate] S400a --> C4[Cake] C4 --> S400b[S400 - Second filtering process] S400b --> ZC2[Zinc carbonate]</pre>



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(21) Appl. No.	BD-P-2023-296
(22) Filed:	30/11/2023
(23) Priority Data:	N/A
(71) Applicant:	Md. Masud Rana of Department of Fishing and Post Harvest Technology, Sher-e- Bangla Agricultural University (SAU), , Nationality -Bangladesh
(72) Inventors:	
(51) INT. CL. :	A23L 21/10
(54) Invention Title:	"A Culinary Method for the Production of Palatable Fish Jam & Jelly from Hilsa Fish with a Nutritional Twist for Consumer Fulfillment".
(57) Abstract	This invention introduces an innovative method for producing fish jelly from Hilsa fish, addressing diverse consumer preferences in fish consumption. Emphasizing the significance of a balanced diet and the nutritional value of Hilsa fish, the process employs advanced food processing techniques to extract essential nutrients and impart a unique flavor profile to the jelly. Optimization of ingredients, cooking techniques, and preservation methods ensures the retention of nutritional content and sensory attributes. Comparative analysis with fresh Hilsa fish highlights the jelly's substantial nutrient retention, offering a viable alternative for nutrition-conscious consumers. Sensory evaluations confirm positive consumer acceptability, with the fish jelly providing a smooth, gelatinous texture and delightful flavor. This innovation presents a palatable and nutritious solution, poised to diversify the fish-based food market and encourage healthier dietary choices without compromising taste .. The fish jelly stands as a promising addition to the array of nutritious and palatable food options available to discerning consumers.





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**Publication of Granted Patent
No.: 15 & Date: July 20, 2026**

(11) Patent registration No and date	1007083, 19/02/2026
(21) Appl. No. BD-P-2024-190	
(22) Filed: 23/06/2024	
(23) Priority Data:	N/A
(71) Applicant:	MD Ranju Hossain, Deputy Managing Director of ABC Waste Management Ltd. 37/2, Jaman tower(8th floor) Purana palton, Dhaka, Nationality -Bangladesh, Pijush Dutta, Director of ABC Waste Management Ltd. 37/2, Jaman tower(8th floor) Purana palton, Dhaka, Nationality -Bangladesh
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(51) INT. CL. : F23G 5/027	
(54) Invention Title:	A system and method for solid waste management and multi-product recovery via integrated thermochemical and biochemical processes
(57) Abstract	A solid waste management system converts mixed urban waste into valuable by-products using integrated physical, biochemical, and thermochemical processes. Waste is automatically sorted into decomposable and non-decomposable streams. Decomposable waste undergoes hydrolysis, neutralization, fermentation, and distillation to produce bioethanol and compost. Non-decomposable plastic waste is treated via pyrolysis in a chamber (at 450°C) to yield petrol, petroleum gas, bio-char, and activated carbon. The process is designed to maximize resource recovery and minimize environmental impact.
Patent Number:- MD Ranju Hossain Pijush Dutta	



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(11) Patent registration No and date 1007104, 30/06/2026	
(21) Appl. No. BD-P-2025-359	
(22) Filed: 25/11/2025	
(23) Priority Data: N/A	
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(74) Agent : bd_wangfuchengec6d4, {app_representative_address}, Bangladesh	
(51) INT. CL. : E01C 21/00;C04B 28/04	
(54) Invention Title: PROCESS FOR CONSTRUCTION OF ROAD BASE AND SUBBASE LAYERS USING CEMENT-STABILIZED SAND	
(57) Abstract The invention relates to a process, composition, and production system for constructing pavement base and sub-base layers using cement-stabilized sand as an alternative to crushed stone and brick aggregates in regions characterized by alluvial soils, scarce stone resources, high groundwater levels, and monsoon climates. The process includes classifying fine sand into engineering types based on particle passing percentage and fineness modulus, controlling gradation, and blending dredged sand, Coarse sand, and coarse materials to achieve a suitable particle-size distribution. Ordinary silicate or Portland cement meeting 42.5-grade performance criteria is incorporated with water of controlled chemical purity, and optimum moisture content and maximum dry density are determined by heavy compaction methods. Cement dosage, allowable delay time, mixing uniformity, and strength targets are established through laboratory mix design and field verification. The invention further provides a cement-stabilized sand composition meeting specified gradation, moisture, and strength requirements, as well as a mixing-plant system equipped with automated feed-bin blending, calibrated cement dosing, moisture regulation, continuous mixing, and real-time quality monitoring. The resulting pavement layers exhibit high stiffness, slab integrity, durability, water stability, and fatigue resistance, enabling cost-effective and long-lasting road construction in regions with abundant fine sand resources.	

Name of Applicant: Dhaka Bypass Expressway Development Company And Xiao Zhiming
Application No. BD-P-2025

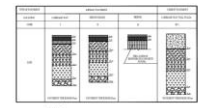


FIG. 1

Wang Fucheng
Representative of the Applicant