(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :05/07/2021

(21) Application No.202141030130 A
(43) Publication Date : 16/07/2021

(54) Title of the invention : A METHOD FOR REPELLING WATER FROM HYDROPHOBIC SOIL

(51) International classification	:C09K0017320000, G01N0033240000, C05F0011020000, A01N0043160000, C12Q0001683700
(31) Priority Document No	:NA
(32) Priority Date	:NA
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(57) Abstract :
Organic compounds released during various manmade processes into the soil have made soil hydrophobic and water repellent. The organic coatings may be due to waxes, lignin, plant root exudates, fungal components and other volatile organic matter that pack onto the soil. Surface water repellency (SWR) is phenomenon were the soil fails to respond when a drop of water is applied over its surface. Soils with a small surface area (e.g. sand) are more prone to water repellency as it takes less hydrophobic material to coat individual particles, compared to silt or clay. This soil creates more runoff and is sensitive to erosion hazard. Various methodologies including traditional to conventional methods are available, but each and every methodologies has their own limitations. An alternative to above mentioned approach is bio-based treatment using enzymatic cocktails.

No. of Pages : 15 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :18/06/2020

(21) Application No.202041025613 A

(43) Publication Date : 03/07/2020

(54) Title of the invention : METHOD AND COMPOSITION FOR REDUCING EMISSIONS FROM A COMPRESSION IGNITION ENGINE AND ENHANCING PERFORMANCE

(51) International classification :F02D 41/00

(31) Priority Document No :NA

(32) Priority Date :NA

(33) Name of priority country :NA

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

The invention involves a method and composition for reducing emissions from a compression ignition engine and enhancing performance. The method includes the step of a) conducting a first phase performance, combustion and emission tests with diesel oil and mahua biodiesel oil in the compression-ignition (CI) engine to obtain first values indicating 20% mahua biodiesel oil by volume and 80% diesel oil (a B20 blend) presents an optimum mixture. The method includes the step of b) conducting a second phase performance, combustion and emission tests with a low heat rejection (LHR) modified engine and comparison is performed to obtain second values indicating the performance of a coated engine with B20 blend presents the optimum mixture. The method includes the step of c) in a third phase, implementing a low-temperature combustion (LTC) by an exhaust gas recirculation (EGR) at a ratio of about 5% to about 20% to reduce the NOx emission and results into increased emissions of the carbon monoxide (CO), and hydrocarbons (HC) in 15% ratio. The method includes the step of d) in a fourth phase, combining the low heat rejection (LHR) modified engine and the EGR and used in a diesel engine fuelled with the B20 blend and 5% ethanol is added as a blend to increase efficiency with low emissions and enhanced combustion. The most illustrative drawing: FIG. 2.

No. of Pages : 27 No. of Claims : 10

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(19) INDIA
(22) Date of filing of Application :18/06/2022

(21) Application No.202241035046 A
(43) Publication Date : 22/07/2022

(54) Title of the invention : System and Approach for Interactive Examination for Visually Challenged Candidates in English and Tamil Languages

(51) International classification :G10L0015260000, G10L0015180000, G10L0015220000, G06Q0050220000, G09B0007020000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
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(57) Abstract :
SYSTEM AND APPROACH FOR INTERACTIVE EXAMINATION FOR VISUALLY CHALLENGED CANDIDATES IN ENGLISH AND TAMIL LANGUAGES
In the traditional methods of educational practice, the possibility of writing exams by the visually challenged candidates has always been dependent on the scribes. It is a tedious task for the visually challenged candidates and their family to identify a scribe as there aren't enough scribes when compared to the visually challenged candidates; this puts the candidates in a critical situation during the examinations. To overcome these situations, this proposed system helps the candidates in attending their examinations independently using speech to text and text to speech conversion. The examination is designed in an interactive manner where the questions are converted from text to speech by the system and the responses given by the candidate are received as voice input and is converted into text format. The received responses are converted into text format using speech to text conversion. The candidate can get help from the system for any system related issues like password mismatch, wrong field of choice for entering the password, register number. with their voice commands. This system restricts a user with unique login credentials in a single system at any point in time. All the data including questions, answer options, answers and candidate credentials are stored in a cloud database that is connected to the system through internet. The evaluated score of the examination for each candidate is generated and stored in the database.

No. of Pages : 17 No. of Claims : 8

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(19) INDIA
(22) Date of filing of Application :19/05/2022

(21) Application No.202241028898 A
(43) Publication Date : 17/06/2022

(54) Title of the invention : Smart Bin with UV Interface (Sun Clave)

(51) International classification	:A61M0005320000, A61L0011000000, C07K0014705000, C05G0003000000, A61L0002100000
(86) International Application No Filing Date	:PCT// :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
SMART BIN WITH UV INTERFACE(SUN CLAVE) The idea of SMART BIN WITH UV INTERFACE was developed in the notion of breaking the chain of infection spread. The main motive of this innovation is to provide a contactless bin that would sterilize the medical wastes like masks, cotton, syringe, etc., thereby replacing the traditional trash bin. This bin provides a safer disposal of medical wastes and it reduces the risk of spreading diseases, due to the disposed waste. The invention uses UV rays of type C to sterilize the medical wastes. This kills and prevents the further growth of pathogens present in the medical wastes, without causing harm to the environment.

No. of Pages : 19 No. of Claims : 10

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(54) Title of the invention : SWAD (Smart Water Dispenser)

(51) International classification :F25D0023120000, B67D0003000000, C02F0001320000, C02F0001440000, A47J0031000000
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
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(57) Abstract :
SWAD (SMART WATER DISPENSER) The Smart Water Dispenser (SWAD) is a device invented to ensure safe and germ-free dispensing of water. The lack of proper sanitization of vessels is a major reason for the contamination of water. To prevent this issue, an UV system is introduced in this device to curtail the function of bacteria, viruses, and other pathogens. And it provides a built-in water dispenser system adjacent to the UV system. It requires less power supply and can be powered by a battery making it independent of constant energy requirement.

No. of Pages : 14 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :12/05/2022

(21) Application No.202241027340 A
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(54) Title of the invention : WHEELCHAIR CANOPY

(51) International classification :A61G0005100000, A45B0011000000, A61G0005120000, A61G0005000000, A61G0003060000
(86) International Application No :PCT// /
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(57) Abstract :
WHEELCHAIR CANOPY Wheelchair is an essential part in the life of the physically challenged people, patients who need the support of a wheelchair and the elderly. Holding an umbrella is normally inconvenient while commuting in a wheelchair during rain or hot sun. The current invention, “Wheelchair canopy” is designed to overcome this inconvenience which aims to provide an aid for the wheelchair users, during hostile weather conditions. Canopy attached to the wheelchair can be opened and retracted automatically using the manually operated push buttons. The mechanical ribs provide adequate support for the canopy and designed to give maximum coverage from rain and sunlight. It also provides stability to withstand heavy winds. The canopy is designed to support easier attaching and detaching as per the user’s requirements. Installation/Uninstallation of the canopy is made simple and manageable. This wheelchair canopy is safe and beneficial that mitigates the shortcomings of a manual umbrella usage for the physically challenged and the elderly people who use wheelchairs for locomotion.

No. of Pages : 19 No. of Claims : 10

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(22) Date of filing of Application :26/04/2022

(21) Application No.202241024514 A
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(54) Title of the invention : System and method for visual rendering based learning aid for Hearing Impaired Students

(51) International classification :G10L0015260000, H04R0025000000, G09B0005000000, G06Q0050200000, G09B0005140000
(86) International Application No :PCT//
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(57) Abstract :
SYSTEM AND METHOD FOR VISUAL RENDERING BASED LEARNING AID FOR HEARING IMPAIRED STUDENTS
Learning environment for the hearing impaired students is more challenging. Hearing impaired students, commonly acquire the same level of mental capability as the normal hearing students in terms of learning ability and lack only in their hearing ability. This visual rendering based learning aid provides a computer based integrated learning environment through which the hearing impaired students can view, understand and learn the subjects. Classroom live lecture of the teacher is converted into text using speech-to-text conversion and displayed in the text frame; Images and videos related to the topic of discussion can be uploaded in the image and video frames to support the teacher to explain the topic with ease and to aid the hearing impaired students to understand the contents. This system supports multiple spoken languages that can be selected by the teacher for a particular session. Converted text and the associated summary generated by the system are saved in the database in text format for later reference by the teacher and the hearing impaired students. Students with hearing disability can understand and learn better with the assistance of visual aids.

No. of Pages : 21 No. of Claims : 10