

पेटेंट कार्यालय

शासकीय जर्नल

**OFFICIAL JOURNAL  
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(12) PATENT APPLICATION PUBLICATION

(21) Application No.202011051091 A

(19) INDIA

(22) Date of filing of Application :24/11/2020

(43) Publication Date : 01/01/2021

(54) Title of the invention : ANTI-THEFT SYSTEM FOR BAGS

(51) International classification	:G06F 21/32 A45C 13/24 G06K 9/00	(71) <b>Name of Applicant :</b> <b>1)Desh Bhagat University</b> Address of Applicant :NH1, Mandi Gobindgarh, Punjab- 147301, India Punjab India (72) <b>Name of Inventor :</b> <b>1)Dr. Shalini Gupta</b> <b>2)Dr. Inderpreet Kaur</b> <b>3)Dr. Manpreet Singh Manna</b>
(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	

(57) Abstract :

An anti-theft system for bags, comprising a fingerprint sensor integrated with a microcontroller and mounted on a bag, to capture and compare the fingerprints of a user with a pre-stored database, wherein the microcontroller is interfaced with an electromagnetic lock that is activated to lock/unlock the bag, a vibration sensor connected to the microcontroller that detects movement of the bag caused while being snatched by a thief, wherein a buzzer is actuated to produce a sound signal to alerts the user and other person(s) in the surroundings, a suction unit interfaced with microcontroller and mounted on the bag, wherein the suction unit adheres to the body of the user in order to prevent the thief from snatching the bag and a shock generating unit embodied in the bag that is actuated to generate a shock via a button associated with a user interface in order to retrieve the bag.

No. of Pages : 13 No. of Claims : 8

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(12) PATENT APPLICATION PUBLICATION

(21) Application No.202111003000 A

(19) INDIA

(22) Date of filing of Application :21/01/2021

(43) Publication Date : 29/01/2021

(54) Title of the invention : HYBRID ELECTRICITY GENERATION SYSTEM

(51) International classification	:F24D 19/10 F24S 23/30 F02C 6/18	(71) <b>Name of Applicant :</b> <b>1)Desh Bhagat University</b> Address of Applicant :NH1, Mandi Gobindgarh, Punjab 147301, India. Punjab India (72) <b>Name of Inventor :</b> <b>1)Dr. Inderpreet Kaur</b> <b>2)Dr. Manpreet Singh Manna</b> <b>3)Dr. Amandeep Singh Oberoi</b> <b>4)Dr. Sunil Kumar Singla</b>
(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	

(57) Abstract :

A hybrid electricity generation system, comprising a casing 1 stored with water that is categorized into a first 4, second 3 and third convective zone 2 based on amount of salinity gradient, wherein the third convective zone 2 absorbs maximum radiations/heat from sun, multiple Fresnel lens 9 for concentrating radiations/heat of sun directly into the water to increase temperature level of the water, multiple nanoparticles 10 dissolved in water present in the third convective zone 2 for conveying high amounts of thermal energy upon absorbing the heat/radiations and a thermoelectric generator 6 having a primary 7 and secondary side 8 associated with water, wherein the dissolved water is supplied to the primary side 7 via an insulated conduit 5, whereas the secondary side 8 is maintained at a cooler temperature that in return generates electricity due to temperature difference in between the side(s) of the generator 6 via seebeck effect.

No. of Pages : 14 No. of Claims : 5

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(12) PATENT APPLICATION PUBLICATION

(21) Application No.202111002999 A

(19) INDIA

(22) Date of filing of Application :21/01/2021

(43) Publication Date : 05/03/2021

(54) Title of the invention : SUSTAINABLE ELECTRICITY GENERATION SYSTEM SYSTEM

(51) International classification	:F03G0007080000, H01M0010460000, H01M0008065600, H01L0031042000, H01M0008066800	(71) <b>Name of Applicant :</b> <b>1)Desh Bhagat University</b> Address of Applicant :NH1, Mandi Gobindgarh, Punjab 147301, India. Punjab India
(31) Priority Document No	:NA	(72) <b>Name of Inventor :</b>
(32) Priority Date	:NA	<b>1)Dr. Inderpreet Kaur</b>
(33) Name of priority country	:NA	<b>2)Dr. Manpreet Singh Manna</b>
(86) International Application No	:NA	<b>3)Dr. Amandeep Singh Oberoi</b>
Filing Date	:NA	<b>4)Dr. Sunil Kumar Singla</b>
(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	

(57) Abstract :

A sustainable electricity generation system including a solar module 1 installed at public lavatory for generating electricity during day, a urine storage tank embodied within the lavatory for storing urinated solution, a gas production chamber 2 having at least two electrodes 6, 7 and connected to the tank, receiving urinated solution through an electromechanical valve to produce hydrogen gas ultimately stored in a compressed gas cylinder 3, a chemical sensor fabricated in the chamber to detect urea concentration which is maintained in the chamber through a microcontroller directing the valve, an imaging unit installed in the chamber for detecting working capacity of the electrodes, an electrode replacement unit 10 fitted to the chamber for replacing electrodes based on their working capacity, and an energy generation module 4 connected to the cylinder for utilizing hydrogen gas along with atmospheric oxygen to generate voltage for power consumption by the lavatory at night.

No. of Pages : 16 No. of Claims : 5

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पेटेंट कार्यालय का एक प्रकाशन  
PUBLICATION OF THE PATENT OFFICE

(54) Title of the invention : HEALTH MONITORING SYSTEM

(51) International classification	:A61B 5/00 G08B 21/04 G01G 19/50	(71) <b>Name of Applicant :</b> <b>1)Desh Bhagat University</b> Address of Applicant :NH1, Mandi Gobindgarh, Punjab- 147301, India Punjab India (72) <b>Name of Inventor :</b> <b>1)Dr. Zora Singh</b> <b>2)Dr. Inderpreet Kaur</b> <b>3)Dr. Manpreet Singh Manna</b> <b>4)Dr. Sandeep Singh</b>
(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	

(57) Abstract :

The present invention relates to a health monitoring system, comprising of an examination module placed around a dining area that determines various physical parameters of a user by taking multiple images and processing them in a sequential manner, a weight sensor integrated with the system that determines weight of the user, a processing unit linked with the module that fetches data from the examination module and compares with the three elements included in doshas that are vaat, pit and kapha in order to determine the imbalance in the doshas, a display unit paired with the processing unit that on the basis of degree of imbalance in the doshas, suggests suitable diet and body posture during and after meal in order to rectify the imbalance in the doshas.

No. of Pages : 13 No. of Claims : 8



Australian Government

IP Australia

# Register of Patents

Patents Act 1990

## Innovation Patent

Patent no: 2021100050

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Rao, P.V  
Kaur, Inderpreet  
Manna, Manpreet Singh  
Padhy, Neelamadhab  
Varma, P. Satya Shekar  
K, Krishnamoorthi

**Title:** MACHINE LEARNING AND IoT BASED AUTONOMOUS CAR  
JACK

**Term:** Eight years from 6 January 2021

**Date Granted:** 10 March 2021

**Date Certified:**

**Date of Patent:** 6 January 2021

**Status:** GRANTED

**Expiry Date:** 6 January 2029  
**Date Ceased:**  
**Date Revoked:**

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PUBLICATION OF THE PATENT OFFICE

(54) Title of the invention : SECURE SECRET KEY SHARING BASED ASYMMETRIC CRYPTOGRAPHY WITH BLOCKCHAIN FOR INTERNET OF THINGS

<p>(51) International classification</p> <p>(31) Priority Document No</p> <p>(32) Priority Date</p> <p>(33) Name of priority country</p> <p>(86) International Application No</p> <p>Filing Date</p> <p>(87) International Publication No</p> <p>(61) Patent of Addition to Application Number:</p> <p>Filing Date</p> <p>(62) Divisional to Application Number</p> <p>Filing Date</p>	<p>(71)Name of Applicant :</p> <p><b>1)Dr. Manpreet Singh Manna</b> Address of Applicant :Associate Professor EIE, SLIET (Deemed University by MHRD Govt. of India), Longowal, Punjab. INDIA Punjab India</p> <p><b>2)Prof. (Dr.) Meenakshi Sharma</b></p> <p><b>3)Prof.(Dr.)B. Balamurugan</b></p> <p><b>4)Dr Arvind Kumar</b></p> <p><b>5)Prof Jayant Shekar</b></p> <p><b>6)Rajnish Kumar Mishra</b></p> <p><b>7)Aditya Tandon</b></p> <p><b>8)Dr.R.Lakshmana Kumar</b></p> <p>(72)Name of Inventor :</p> <p><b>1)Dr. Manpreet Singh Manna</b></p> <p><b>2)Prof. (Dr.) Meenakshi Sharma</b></p> <p><b>3)Prof.(Dr.)B. Balamurugan</b></p> <p><b>4)Dr Arvind Kumar</b></p> <p><b>5)Prof Jayant Shekar</b></p> <p><b>6)Rajnish Kumar Mishra</b></p> <p><b>7)Aditya Tandon</b></p> <p><b>8)Dr.R.Lakshmana Kumar</b></p>
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## (57) Abstract :

The Internet of Things (IoT) can be seen as a network of physical devices, with the capability to gather and distribute various types of data in any time, location, context and medium. In an IoT, the distributed devices use sensors to monitor different conditions, such as sound, temperature, pressure, vibration, pollutants, and movement, to name a few. Sensor nodes in IoT are dependable for distributing information with low power expenditure, a high degree of trustworthiness, with high autonomy stage, and high performance. This information can reflect in numerous regions for which IoT is proposed as a solution to various requirements. Privacy, security, autonomy and reliability are the most significant necessities in IoT systems. If these problems are not assured, the IoT system could be vulnerable to malicious users and malicious usage. In centralized IoT systems, risks and attacks are superior, particularly when data is broadcasted between devices and disseminated with other organizations. This work presents a decentralized system that assures the security and autonomy of an IoT system to evade these types of circumstances. The proposed method assists in defending data availability and integrity using the security benefits offered by blockchain and the use of cryptographic tools. In this work, an asymmetric cryptography scheme is proposed to enhance the confidentiality and integrity of the data travelling over the network. The proposed method is carried out through the communication of data between the main data receiver and physical devices. In asymmetric cryptography, the public key is used for encryption and the secret key is used for decryption. Therefore, source IoT device shares secret key to destination IoT device. Secure secret key sharing refers to any method for sharing a secret among a group of devices, each of which allows a share of the secret. The secret can be reconstructed when the shares are merged. The precision of the proposed method was calculated on humidity and temperature sensing IoT. The achieved outcomes confirm that the scheme fulfils the major necessities of an IoT system. It is independent, safe to distribute and transmit data between users and devices, has confidentiality, it is trustworthy, and the data is obtainable in the infrastructure. Moreover, this study shows that the scheme is less vulnerable to the most common attacks against IoT systems, for example, linking attack, Distributed Denial of Service (DDoS) attack and man in the middle.

No. of Pages : 12 No. of Claims : 4



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ABN: 38 113 072 755

# Notice of grant for your innovation patent

## Manpreet Singh Manna

Associate Professor  
Department of EIE  
Sant Longowal Institute of Engg. & Tech  
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Longowal, Sangrur, Punjab - 148106  
India

<b>Patent number</b>	2020101845
<b>Patentee name</b>	Manpreet Singh Manna, Meenakshi Sharma, Arvind Kumar, Reecha Sharma, Balamurugan Balusamy, Lakshmi Shankar, Sumit Chaudhary, Lakshmana Kumar R, Suresh Kallam
<b>Your reference</b>	Manpreetsingh

Dear Patentee,

The granting of your application has been processed. The date of grant is 9 September 2020 and the Certificate of Grant is enclosed.

### What will happen next

- The granted patent number will be published in the next available [Australian Official Journal of Patents](#).
- Your first renewal fee payment, being for the 2nd year anniversary, is due on 15 August 2022.

### What you can do

- Request examination** – this is optional and you can request examination at any time during the term of your patent. The fee is currently \$500.

### Things to be aware of

- Your patent cannot be legally enforced until it is certified through examination.
- If examination is requested and your patent does not meet the requirements for certification, your patent will cease.
- The term of your innovation patent is 8 years from the date of the patent (15 August 2020).

## Your progress

✓	<b>Filed</b> Application is filed
✓	<b>Acceptance and Grant</b> Application is accepted and patent granted
	<b>Examination</b> Patent is being examined
	<b>Certification</b> Patent is certified (patent is now enforceable)
!	<b>Renewal</b> Renewal fees required to maintain patent (fees are due annually - please refer to the 'paid to' date in AusPat for your next due date)

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<b>Patent number</b>	2020101845
<b>Your reference</b>	Manpreetsingh

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**Patent number** 2020101845  
**Your reference** Manpreetsingh

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- To maintain your innovation patent you have to pay annual renewal fees. The fee can be paid up to 6 months after 15 August 2022 provided it is accompanied by the required late payment fee. Your patent will cease if renewal fees are not paid.

Details of your patent can be viewed on [AusPat](#), our Australian patent search database.

Yours sincerely,

IP Australia