## Patent Search

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| Invention Title | HYGIENIC BITE BOARD |
| Publication Number | 24/2021 |
| Publication Date | 11/06/2021 |
| Publication Type | INA |
| Application Number | 202131020814 |
| Application Filing Date | 07/05/2021 |
| Priority Number | |
| Priority Country | |
| Priority Date | |
| Field Of Invention | BIO-MEDICAL ENGINEERING |
| Classification (IPC) | A61C0007360000, A61M0016040000, A61C0007280000, A61C0013097000, A63B0071080000 |

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**Abstract:**

Hygienic bite board consists of a rectangular ligature meshed occlusal table with soldered stainless steel sleeves (buccal and lingual). Through the sleeves the locking (buccal and lingual) are passed which hooks onto the molar band buccally onto a buccal wire that is welded above the molar tube and lingually locks into the lingual s table acts as a lid that can be opened and closed by unlocking the buccal locking component only. Intraorally after placing the molar band with the appliance locked i and separating medium applied onto the occlusal surface, bite block material is flowed onto the table with mesh and can be adjusted after it sets. The patient is train and lock the buccal locking component. The appliance is removed once the purpose of the bite block is served and wouldn't require any cleaning of the occlusal surfa

Complete Specification

FIELD OF THE INVENTION

The present invention relates to Orthodontics, in particular, it relates to Dentofacial Orthopedics.

BACK GROUND OF THE INVENTION

In Orthodontics bite blocks are placed on the occlusal surface of posterior teeth for correction of anterior cross bites and allows placement of brackets in lower ant region in case of deep bite. Bite blocks can be fixed or removable type. Removable type are fabricated using self polymerizing and heat polymerizing acrylic resins. bite blocks are fabricated using restorative glass ionomer cement (GIC) and also coloured band adhesive material. Removal of fixed bite blocks requires a meticulou up of the occlusal surface without denuding the enamel and with no adhesive remnants so that the occlusal integrity of the tooth is maintained. Maintenance of or hygiene during treatment procedure requires removal of the block during recall and also readjustment of height in cases of cross bite correction. There may be cha iatrogenic damage to enamel while removal of fixed bite block and maintenance of oral hygiene is difficult during treatment procedure. It would be beneficial if the block is designed in such a way that it is not cemented to tooth surface but semifixed to the molar band so that it serves the purpose of a bite block, which can be e removed without any enamel damage and oral hygiene is also maintained.

In the patent DE102012022488 wherein the disclosure includes a plastic mould which compromises the strength of the mould as well as oral hygiene. To address th the present invention brings in stainless steel material which has the required strength and oral hygiene for the orthodontics perspective. Also, in the document DE 2011 101 938 A1 difficult to ensure the necessary dental hygiene, since a use of dental floss are close together because the cap is made more difficult. To overcome

View Application Status

## Patent Search

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|---|---|
| Invention Title | COMPOSITE SEPARATOR FOR LINGUAL RETAINERS |
| Publication Number | 24/2021 |
| Publication Date | 11/06/2021 |
| Publication Type | INA |
| Application Number | 202131020764 |
| Application Filing Date | 07/05/2021 |
| Priority Number | |
| Priority Country | |
| Priority Date | |
| Field Of Invention | MECHANICAL ENGINEERING |
| Classification (IPC) | B32B0037000000, A61M0031000000, A61F0005560000, A61C0003000000, A61C0005000000 |

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**Abstract:**

A major difficulty faced by upcoming dental graduates is in stabilising the lingual wire. Inaccurate composite placement is also one of the chief concerns faced. It can complications like lack of retention, poor oral hygiene as well as patient discomfort. Lingual retainers bonded on all six mandibular anterior teeth might induce unexp movement of anterior teeth to such an extent that retreatment is necessary. Struggling to place the composite in the correct position in order to stabilize the fixed re major concern among beginners. When these complications are detected early, interceptive measures can be made which prevents damage to periodontal tissues ar However if they are found too late, they can be detrimental and retreatment might become necessary. The current method not only provides increased stability to th wire but also allows placing the composite in a much easier and cost effective way.

Complete Specification

FIELD OF THE INVENTION

The present invention relates to Orthodontics, in particular, it relates to Dentofacial Orthopedics.

BACKGROUND OF THE INVENTION

Bonded retainers have become a very important retention appliance in orthodontic treatment. They are popular because they are considered reliable, independent patient cooperation, highly efficient, easy to fabricate and almost invisible. The bonded retainers are applicable for both mandibular and maxillary anterior teeth. T bonded orthodontic retainer constructed from multi-strand wire and composite is an efficient aesthetic retainer, which can be maintained long-term. Complication rare but can be serious enough to produce biologic damage.A major difficulty faced by upcoming dental problem is in stabilising the lingual wire. Inaccurate compo placement is also one of the chief concerns faced. Lingual retainers bonded on all six mandibular anterior teeth might induce unexpected movement of anterior te such an extent that retreatment is necessary. Struggling to place the composite in the correct position in order to stabilize the fixed retainer is a major concern amo beginners. When these complications are detected early, interceptive measures can prevent damage to periodontal tissues and bone. However when they are foun late, they can be detrimental and retreatment might become necessary.

According to the US7854610 patent, the orthodontic retainer system for use on teeth is formed from plastic materials or metallic materials. But the present disclos discloses the retainer system is formed from composite materials wherein the composite materials is biocompatible and strong enough to be used in the orthodon in another invention having patent number WO2008/115616 wherein the disclosure comprising an orthodontic retainer system characterized by dental modules co

View Application Status

## Patent Search

| | |
|---|---|
| Invention Title | STOP APPLIANCE - SIMULTANEOUSLY TREATING ORTHODONTIC PROBLEMS |
| Publication Number | 24/2021 |
| Publication Date | 11/06/2021 |
| Publication Type | INA |
| Application Number | 202131020913 |
| Application Filing Date | 08/05/2021 |
| Priority Number | |
| Priority Country | |
| Priority Date | |
| Field Of Invention | BIO-MEDICAL ENGINEERING |
| Classification (IPC) | A61C0007080000, A61C0007000000, A61F0005500000, A61F0005560000, A61P0017020000 |

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**Abstract:**

Oral equilibrium is affected by oral habits. If the oral habits persist beyond a certain age, it can cause great harm to the dentition. Therefore, it is important to interce and promote normal development. So, an appliance has been constructed which aims at treating a combination of problems simultaneously. The wire components i tongue crib and adams clasps on molars. Inclined plane with incisal capping is given in maxillary arch. It corrects habits such as tongue thrusting, thumb sucking, nail prevents cross bite, deep bite, flaring of maxillary anterior teeth and supra eruption of incisors. Also promotes mandibular growth by freeing it from distal interlockin indicated in early mixed dentition period with the intention of intercepting the habit and by promoting growth of mandible, before any established growth modificati procedures are undertaken. This eventually leads to shortening of fixed orthodontic treatment time.

Complete Specification

FIELD OF THE INVENTION

This invention relates to the field of orthodontics to intercept the common oral habits like tongue thrusting, thumb sucking and nail or lip biting in children with ear dentition.

BACK GROUND OF THE INVENTION

The interplay between the intraoral and extraoral muscles plays a major role in stability and position of dentition and surrounding structures. This equilibrium is afl by oral habits. Oral habits play a major role in the development of malocclusion and also affect the surrounding hard and soft tissues. To intercept these habits, hal breaking appliances are given. To do so, an appliance is constructed which can treat a combination of problems simultaneously - the STOP Appliance. Unlike other appliances, this appliance aims at stopping a group of habits at once along with preventing malocclusion to some extent which would have occurred if the habits w have been stopped.

OBJECTIVE OF THE INVENTION

? The object of the invention is to intercept multiple habits at one.
? Another object of the invention is to prevent exaggerated presentation of malocclusion in future.

SUMMARY OF THE INVENTION

View Application Status

**(12) INNOVATION PATENT**
**(19) AUSTRALIAN PATENT OFFICE**

(11) Application No. **AU 2021101385 A4**

(54) Title
**DELICATE VIBRATORY INSTRUMENT FOR NEONATES ORAL MOTOR SIMULATION**

(51) International Patent Classification(s)
***A61H 23/02*** (2006.01) ***A61J 17/02*** (2006.01)
***A61H 13/00*** (2006.01)

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**(12) INNOVATION PATENT** (11) Application No. **AU 2021102355 A4**
**(19) AUSTRALIAN PATENT OFFICE**

(54) Title
**COST EFFECTIVE PORTABLE OXYGEN CONCENTRATOR FOR COVID-19**

(51) International Patent Classification(s)
***F25J 3/04*** (2006.01) ***A61M 16/10*** (2006.01)

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**(12) INNOVATION PATENT** (11) Application No. **AU 2021101143 A4**
**(19) AUSTRALIAN PATENT OFFICE**

(54) Title
**SUSTAINABLE REMOTE ASSISTED & TRANSPORTABLE NEONATAL CARE DEVICE FOR JAUNDICE TREATMENT**

(51) International Patent Classification(s)
***A61N 5/06*** (2006.01)

(21) Application No: **2021101143** (22) Date of Filing: **2021.03.03**

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(71) Applicant(s)
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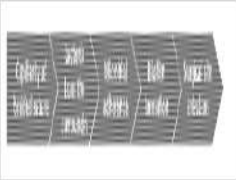
# TIO2 NANO-PARTICLES IMPREGNATED SURGICAL SILK SUTURE


## ABSTRACT

The present invention relates to surgical silk sutures and more specifically the sutures are biocompatible with antimicrobial, photo-catalytic and self-cleaning properties. Silk is a material widely used in surgery as a non-absorbable suture to sew wounds. Silk is applied in form of a braided thread and structures comprising such substrates for use in various medical devices. The invention relates to surgical silk suture composition that comprises titanium oxide nanoparticles coated sutures, and the method for producing said surgical silk sutures. In addition, invention deals with a 3D printing machine for coating the thread/suture and a method of coating the suture using the said machine.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|---|---|
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| App. No. | IB2021050996W |
| App. No. Original | IB2021/050996 |
| Appl. Date | 08-Feb-2021 |
| Pub. Date | 12-Aug-2021 |
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| Assignee Norm. | CHANDRASHEKAR VIDYA KODIGE (IN) |
| Current Owner | CHANDRASHEKAR VIDYA KODIGE |
| IPC | A61L17/00, A61B17/04 |
| CPC | A61L2300/404, A61L17/04, D10B2509/04, A61L17/005, A61L2300/102, D02G3/449, D02J3/18, A61L2400/12, A61L17/145 |


Register Data

## CLAIMS

CLAIMS: I/We Claim, 1) A surgical silk suture comprising a plurality of silk filaments, that together form a strand, wherein the said silk filaments being coated with titanium dioxide ( $TiO_2$ ) nano-particles (NPs), and characterized by non-capillarity, non-brooming, improved knot retention, biocompatible, antimicrobial, photo-catalytic and self- cleaning properties. 2) The surgical silk suture as claimed in claim 1, wherein the $TiO_2$ substrate is in form of $TiO_2$ nano particles, having particle size in range of 40 nanometers to 60 nanometers. 3) The surgical silk suture as claimed in claim 1, wherein the $TiO_2$ NPs are comprising of Titanium and Oxygen with atomic weight of 24.54% and 41.60% respectively; wherein the hydrodynamic size of $TiO_2$ NPs were ranging from 270nm to 400nm; wherein the Zeta potential value of $TiO_2$ NPs were -24.7mV; wherein the said of $TiO_2$ NPs were stable in the suspension form. 4) The surgical silk suture as claimed in claim 1, wherein the support material is a thread with a monofilament or multifilament structure; wherein the suture is a braided, twisted, or covered suture; wherein the support material is a suturing thread joined to a needle; wherein the support material is a staple. 5) The surgical silk suture as claimed in claim 1, wherein the plurality of plasmonic nanoparticles are evenly dispersed within the silk fibroin matrix; wherein the plurality of nanoparticles are distributed in a gradient within the silk fibroin matrix; wherein the plurality of nanoparticles are distributed in a pattern, said pattern comprises an optical pattern, a micropattern, or a nanopattern; wherein the at least one nanoparticle is selected from the group consisting of a nanosphere, a nanoshell, a nanorod, a nanocage, a nanocrystal, nanopowder, and any combinations thereof. 6) The surgical silk suture as claimed in claim 1, wherein the metal is selected

## DESCRIPTION

1.

$TiO_2$ NANO-PARTICLES IMPREGNATED SURGICAL SILK SUTURE [001] TECHNICAL FIELD OF THE INVENTION

2.

[002] The present invention is in the technical field of Titanium dioxide ( $TiO_2$) Nano-particles (NPs) impregnated Surgical Silk Suture. More particularly, the sutures are biocompatible with antimicrobial, photo-catalytic and self-cleaning properties.

3.

[003] BACKGROUND OF THE INVENTION

4.

[004] The surgical silk is braided and multifilament, which increases the capillarity allowing body fluids and the pathogens getting soaked up and these bacteria prefer to adhere to the silk protein fibroin and hides in the bride gaps, resulting in bacterial colonization, tissue reaction and surgical site infection (SSI), which accounts for 31% of hospital acquired infections as shown in following flowchart

## Patent Search

| | |
|---|---|
| Invention Title | SANJIVANI- A NOVEL COLS DEVICE TO PREVENT FROM CARDIAC ARREST, ELECTROCUTION, CHOKING AND CHEMICAL SUFFOCATION |
| Publication Number | 28/2021 |
| Publication Date | 09/07/2021 |
| Publication Type | INA |
| Application Number | 202131025786 |
| Application Filing Date | 10/06/2021 |
| Priority Number | |
| Priority Country | |
| Priority Date | |
| Field Of Invention | MECHANICAL ENGINEERING |
| Classification (IPC) | B41J0002165000, H04L0029060000, B60H0001000000, A01M0023380000, A61H0031000000 |

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**Abstract:**

Due to life style change there is increase in number of coronary artery disease related cardiac arrest. Cardiac arrest is sudden stoppage of heart due to rhythm distur Victims of electrocution, lightening injury, drowning.and suffocation due to smoke by fire mishap in multistoried buildings, educational institution and marketplaces r cardiopulmonary resuscitation (CPR) by first responders. Sanjivani QCPR,a manual cardio pulmonary resuscitation(CPR) or compression only life support (COLS) assis deployed for use on a victim of cardiac arrest of any origin like heart attack, electrocution, drowning, lightening injury,fire smoke inhalations or choking, food or drug device has a rigid body structures with electronic components for visual feedback unit, audible signal unit and scope forsignal transmission to nearby ambulance and department of hospital. Its ergonomically designed to ease of the stretching forces on small hand bones of conventional manual cardiopulmonary resuscitation. The of the device which comes in contact with victim's chest resembles area of adult palm i.e 4 inches. The electronic components receiving the mechanical compression converting to electrical signals is kept in the lower part of the device and separated from victim's chest or breast bone by silicon diaphragm or any other non-slippery The upper part of the device is of 8.5 inch to avoid coning of shoulder blades and fatigue during resuscitation. The visual signal unit is incorporated in the central upp indicating 3 parameters Good-Job, No-recoil and Too-Slow to provide visual data by blinking LED on three parameters of Chest compressions like adequate Rate, dep Low recoil or low rate. The audio signal unit give a background metronome rate of 100 beats per minute to guide the resuscitator. The intermittent audio feedbacks l No-Recoil& too-slow helps the resuscitating person in remediating his or steps.The audio feedback is multilingual and a default language is set at the time of installat signal transmitting unit will transmit the alert signal to nearby ambulance and emergency healthcare unit if enabled. The trend of resuscitation data is captured in th and can be transferred to suitable software for analysis subsequently. The Whole unit is name as "Sanjivani QCPR".

Complete Specification

Background of the Invention:
Usually, a cardiac arrest victim managed by a life-saving procedure called cardiopulmonary resuscitation (CPR) which involved a number of chest compressions followed by mouth-to-mouth breathing, typically 30 compressions and 2 ventilations. This "Chest compression and ventilationstepswere complicated and very fatiguing for the rescuer. The cause of cardiac arrest may be due to heart attack, electrocution injury, lightening, drowning, choking, drug or food allergy and most of them occur outside hospital. The blood supply to brain has to be restored as soon as possible, otherwise the brain tissue suffers irreversible ischemic damage leading to neurological sequalae.The recognition of cardiac arrest, activation of emergency medical system and initiation of high-quality chest compression by first responder is the key to successful cardiopulmonary resuscitation. In India due to lack of awareness, high population density, a smaller number of ambulanceand hospital, crowded road causes a delay in arrival of emergency medical help. Till that time the common public has to continue the chest compression to maintain brain function and a better scope for return of spontaneous circulation. Recent studies have shown that compression only life support (COLS) by comparison is far more critical than the mouth-to-mouth resuscitation aspect of blowing air into the lungs. Post COVID pandemic the common-men will not be comfortable to provide

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Department of Industrial Policy and Promotion
Government of India



Page last updated on: 26/06/2019

## Patent Search

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|---|---|
| Invention Title | Analysis and Identification of Novel Therapeutic Target in Bacteria Associated with Health Care Infection |
| Publication Number | 27/2022 |
| Publication Date | 08/07/2022 |
| Publication Type | INA |
| Application Number | 202231028144 |
| Application Filing Date | 17/05/2022 |
| Priority Number | |
| Priority Country | |
| Priority Date | |
| Field Of Invention | COMPUTER SCIENCE |
| Classification (IPC) | G06Q0050220000, C12Q0001040000, C12Q0001689000, C12Q0001020000, A61L0009160000 |

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**Abstract:**

ABSTRACT [500] Our Invention “Analysis and Identification of Novel Therapeutic Target in Bacteria Associated with Health Care Infection” is a Medical care related con (HCAI) address up to 50 % of all diseases among patients conceded from the local area. The ongoing survey means to give a deliberate audit on the microbiological pr associated with HCAI, to contrast it and local area gained (CAI) and clinic obtained diseases (HAI) and to assess the definition exactness to anticipate contamination by drug safe microorganisms. We look for HCAI in MEDLINE, SCOPUS and ISI Web of Knowledge without any restrictions concerning distribution language, date of distrib concentrate on plan or study quality. Just examinations utilizing the definition by Friedman et al. were incorporated. This audit was enlisted at PROSPERO Systematic Registration with the Number CRD42014013648. An aggregate of 21 qualified investigations with 12,456 contaminated patients were checked on; of these 3467 had H were microbiologically recorded. Twelve examinations were on pneumonia including 2018 patients with microbiological reported HCAI, the use of the ongoing rules f gathering of patients would bring about a fitting anti-infection treatment in 95 % of cases to the detriment of overtreatment in 76 %; the utilization of local area obtai pneumonia rules would be sufficient in just 75-76 % of the cases; an elective routine with piperacillin-tazobactam or aztreonam in addition to azithromycin would incr infection ampleness rate to 91 %. Not many investigations were found on extra focal point of disease: endocarditis, urinary, intra-stomach and circulatory system con All reviews remembered for this survey showed a relationship of the HCAI definition with contamination by PDR microbes when contrasted with CAI [odds proportion 97 % certainty stretch (97 % CI) 2.610-6.311)]. The responsiveness of HCAI to foresee contamination by a PDR microorganism was 0.619 (0.615-0.712), particularity wa (0.616-0.618), positive probability proportion was 1.9 and the region under the rundown ROC bend was 0.711.

**Complete Specification**

Description:FIELD OF THE INVENTION
[501] Our invention is related to an Analysis and Identification of Novel Therapeutic Target in Bacteria Associated with Health Care Infection.

BACKGROUND OF THE INVENTION
[502] A sum of 21 qualified examinations with 12,456 contaminated patients were investigated; of these 3467 had HCAI, 4563 were microbiologically recorded.

[503] Twelve examinations were on pneumonia including 2018 patients with microbiological recorded HCAI, the use of the ongoing rules for this gathering of patien would bring about a fitting anti-toxin treatment in 95 % of cases to the detriment of overtreatment in 76 %;

[504] Patients with HCAI can address up to 50 % of all tainted patients conceded from the local area setting and are obviously a developing class because of the risir period of patients, as this implies they have more constant sicknesses, require more clinical and careful mediations, are therefore more much of the time hospitaliz regulated and are along these lines more in danger of colonization of and contamination by multidrug safe microorganisms.

[505] Almost 50% of all HCAI patients get anti-microbial treatment as per global rules for local area gained contaminations, with related high paces of deficient anti-infection treatment among them

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## Patent Search

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|---|---|
| Invention Title | BIG DATA, CLOUD BASED DETERMINATION OF THE RELATIONSHIP BETWEEN HEIGHT AND HEART BEAT OF MALE AND FEMALE STUDEN |
| Publication Number | 20/2022 |
| Publication Date | 20/05/2022 |
| Publication Type | INA |
| Application Number | 202221025992 |
| Application Filing Date | 04/05/2022 |
| Priority Number | |
| Priority Country | |
| Priority Date | |
| Field Of Invention | BIO-MEDICAL ENGINEERING |
| Classification (IPC) | A61B0005021000, A61B0005022000, A61B0005000000, G01G0019500000, A61B0005107000 |

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**Abstract:**

ABSTRACT BIG DATA, CLOUD BASED DETERMINATION OF THE RELATIONSHIP BETWEEN HEIGHT AND HEART BEAT OF MALE AND FEMALE STUDENTS The present discl predicts the scope of hypertension by analyzing the blood pressure and height of an individual, comprising of an intelligent monitoring device, a digital stadiometer a machine, and a digital sphygmomanometer. The digital stadiometer and weighing machine, measure the height, and weight and then calculates the body mass index individual. The wireless or bluetooth technology is used to connect the digital stadiometer and weighing machine to the intelligent monitoring device.The digital sphygmomanometer which determines the blood pressure, is also connected to the intelligent monitoring device using wireless or bluetooth technology. The intellige monitoring device will collect the individual's height, weight, and blood pressure rate and compare it will the pre-stored height-blood pressure index.The intelligent m device can be monitored by any medical professionals or any other persons, the result in detail can be viewed from the computer or laptop connected with the intelli monitoring device.

Complete Specification

Description: BIG DATA, CLOUD BASED DETERMINATION OF THE RELATIONSHIP BETWEEN HEIGHT AND HEART BEAT OF MALE AND FEMALE STUDENTS

[0001] The present invention relates to electronics and communication technology more particularly an intelligent monitoring device for predicting hypertensior blood pressure and height of individuals.

BACKGROUND

[0002] Background describthe option includes iinformation that may be useful in understanding the present invention. It is not an admission that any of the inforr provided herein is prior art or relevant to the presently claimed invention, or that any publication specifically or implicitly referenced is prior art.

[0003] Hypertension is dangerous because it makes the heart work harder to pump blood out to the body and contributes to the hardening of the arteries, or atherosclerosis, to stroke, kidney disease, and heart failure. The studies show that hypertension caused by high blood pressure has a close relation to the weight, ge and height of the individuals.

[0004] The present disclosure is a device that can be used on any person, which determines the hypertension of the individual by analyzing blood pressure and h of an individual.

[0005] All publications herein are incorporated by reference to the same extent as if each individual or patent application were specifically and individually indica be incorporated by reference. Where a definition or use of a term in an incorporated reference is inconsistent or contrary to the definiteion of that term provided h

View Application Status

## Patent Search

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|---|---|
| Invention Title | OMNIHASP – A RADIOGRAPHIC SENSOR HOLDING DEVICE |
| Publication Number | 44/2022 |
| Publication Date | 04/11/2022 |
| Publication Type | INA |
| Application Number | 202231060594 |
| Application Filing Date | 22/10/2022 |
| Priority Number | |
| Priority Country | |
| Priority Date | |
| Field Of Invention | CHEMICAL |
| Classification (IPC) | A61Q0011000000, A61P0001020000, A61C0019060000, A61N0001360000, A61C0017080000 |

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**Abstract:**

The present invention relates to an oral hygiene is crucial for both avoiding and identifying systemic diseases through oral saliva. Dental radiographs are a helpful toc identifying and treating oral disorders such caries, periodontal disease, fractured roots, and oral pathologies. Placement of a digital radiographic sensor in the oral ca cumbersome both for the clinician as well as the patient. Improper placement of the radiographic sensor in the oral cavity leads to poor quality of image and distortic being traumatic to patients causing oral bleeding, gagging and ulceration. Hence, there is a need for an apt sensor holding device which will noted only be easy to pla cavity and will not compromise the quality of the image.

Complete Specification

Description:FIELD OF INVENTION
The present invention relates to a radiographic sensor holding device of an oral cavity which is easy to place in the oral cavity and will not compromise the quality of image.
BACKGROUND OF THE INVENTION
One of the most recent advancements in dental radiology is digital radiography. The discipline of digital radiography is leading diagnostic medicine as the globe adv with computer applications. Radiology enters the world of electronic texts thanks to digitalization. The benefits of digital radiography are very astounding, including ability to take radiographs, transfer them over the Internet to a different location, assess professional interpretation, do away with the darkroom, etc. Data that has digitalized has been transformed using a computer into binary numerals. The traditional film, which is X-ray sensitive, is swapped out with an electrostatic device. A digitizer transforms the latent image created by this device into a visible analogue signal. Approximately 20 businesses currently produce digital dental radiography equipment. There are extra-oral, panoramic, and intraoral types of digital radiography.
Dental radiographs are a helpful tool for identifying and treating oral disorders such caries, periodontal disease, fractured roots, and oral pathologies. These radiogr were acquired prior to the 1980s using traditional film-based methods. Digital sensors have begun to acquire favor in the dentistry industry, however, as a result of advancements in computer technology and the introduction of digital systems. The development has been toward a fully integrated digital world where database sy can be used to manage and centrally store digital photographs. Digital x-ray sensors have significant advantages over film radiography, although being comparable analogue film for diagnostic purposes. Exact radiographic duplicates to accompany referrals, security mechanisms to identify original images and differentiate them

View Application Status



Page last updated on: 26/06/2019

## Patent Search

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| Invention Title | A NEW SCREENING MODEL FOR PRE-ECLAMPSIA USING OF UAPI IN 1ST AND 2ND TRIMESTER |
| Publication Number | 44/2022 |
| Publication Date | 04/11/2022 |
| Publication Type | INA |
| Application Number | 202231060863 |
| Application Filing Date | 26/10/2022 |
| Priority Number | |
| Priority Country | |
| Priority Date | |
| Field Of Invention | BIO-CHEMISTRY |
| Classification (IPC) | G01N0033680000, G16H0050200000, G16H0050300000, G01N0033500000, A61B0003000000 |

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**Abstract:**

The present invention relates to a Use of combination of 1st and 2nd trimester UAPI and clinico-demographic risk factors will be simpler and cheaper screening meth better prediction model. This can be incorporated in the 2 routine ultrasound during pregnancy without imposing extra cost to the patient. The present method of sc costlier & complex. To develop a new scoring system based on Combined UAPI of both trimester and Clinico -demographic risk factors for prediction of pre-eclampsia the cutoff value of UAPI in first trimester, second trimester and combined UAPI for predictive diagnosis of pre-eclampsia. To assess and compare the cost-effectivene proposed model with the currently adopted screening modality. The available screening method based on maternal demographic characteristics and medical history. trimester UAPI and PAPP-A and PLGF markers.

Complete Specification

Description:FIELD OF INVENTION
The present invention relates to new screening model for pre-eclampsia using of UAPI in 1st and 2nd trimester and clinico-demographic risk factors.
BACKGROUND OF THE INVENTION
Pregnancy-related hypertensive disorders affect 10% of pregnancies and are a leading cause of maternal and foetal morbidity and mortality. According to the Natio Family Health Survey (NFHS-3), India may have a greater incidence of preeclampsia (PE) and eclampsia than the rest of the world. It can reach 26.4% in the state of In India as well as the rest of the world, it is directly to blame for 7-8% of maternal deaths. The natural placentation process happens in two stages. Between the eig and twelfth weeks, trophoblastic invasion of the decidual part of spiral arteries occurs in the first stage. By the 16th to 18th week, the second stage, in which the myometrial section of the spiral arteries is invaded, is finished.
Any flaw in this mechanism causes the remodelling of spiral arteries to fail. As a result, the vasculature is unable to change from low volume, high resistance to high volume, low resistance. The clinical symptoms of the illness are the result of a complex maternal response to endothelial dysfunction as well as an imbalance betwe angiogenic and antiangiogenic factors. An essential tool in the management of high-risk pregnancies is doppler ultrasonography. This enables a non-invasive assess of the foetal hemodynamics and utero-placental circulation. Although uterine artery Doppler in the second trimester has been utilised in numerous research as a p of pre-eclampsia, there is still disagreement over its usefulness.
The uterine artery high pulsatility index is not a particular criterion to predict preeclampsia since preeclampsia is a two-stage heterogeneous condition with numerc etiologies that causes maternal syndrome of edoema, hypertension, and proteinuria. The circulatory system of patients with high uterine artery PI fails to cope with

View Application Status

## Patent Search

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|---|---|
| Invention Title | ILLUMINATING DENTAL INSTRUMENT, COUPLING AND METHOD OF USE |
| Publication Number | 42/2022 |
| Publication Date | 21/10/2022 |
| Publication Type | INA |
| Application Number | 202211057969 |
| Application Filing Date | 10/10/2022 |
| Priority Number | |
| Priority Country | |
| Priority Date | |
| Field Of Invention | BIO-MEDICAL ENGINEERING |
| Classification (IPC) | A61C0003000000, A61B0018000000, A61B0001000000, A61C0001080000, A61B0006030000 |

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**Abstract:**

A coupling device that allows for the detachable connection of a medical device, such as a dental hand piece, that requires at least one operating medium chosen fro consisting of electrical currents, propulsion gas, auxiliary gas, water, and light and has a conduit for each of the required mediums, to a supply tube that contains fee least one of the operating mediums, with the coupling device being characterised by the fact that it includes a pair of coupling halves that have Each of the coacting c is positioned in a particular spatial location in accordance with a pattern. This is done so that the coupling half that is coupled to the supply tube can be used for coup different medical equipment that requires a different selection of operating mediums. A dental instrument for use in removing unremineralizable carious dentin fro while generally maintaining remineralizable carious dentin. The instrument comprises an instrument body and an instrument head having scraping elements made o Also, a method of removing unremineralizable carious dentine from a tooth while generally maintaining remineralizable carious dentin, wherein the method compris the dental instrument.

Complete Specification

FIELD OF THE INVENTION

This innovation relates to the field of dental. dental procedures like as drilling, descaling, examining, and restoring are all made easier with the help of this invention, which relates to a dental instrument and/or coupling thereof that emits light.

BACKGROUND OF THE INVENTION

In recent years, composite resin and porcelain fillings have been improved to improve their appearance. The goal was to make these dental fillings look like tooth structure. Composite resin and porcelain filling materials with their accompanying adhesives may be utilised to restore a tooth to its pre-damaged state. The goal is to make the filling "invisible" so the tooth seems intact once repaired. Fillings now resemble tooth opacity, colour, and chromaticity. Some composites and porcelains have fluorescence and opalescence qualities. Currently, a significantly fractured tooth can be restored using numerous layers of varying-colored composite fillings, making it impossible to discern between native tooth structure and prosthetic material. A talented dental ceramist can create porcelain restorations that look like real tooth structure. Dental restorations don't endure forever; composite and porcelain

View Application Status

## Patent Search

| | |
|---|---|
| Invention Title | DIGITAL WORKFLOW FOR EDENTULOUS PATIENTS WITH IMPLANT-SUPPORTED FIXED PROSTHESES: A FULLY DIGITAL TECHNIQUE |
| Publication Number | 42/2022 |
| Publication Date | 21/10/2022 |
| Publication Type | INA |
| Application Number | 202211057968 |
| Application Filing Date | 10/10/2022 |
| Priority Number | |
| Priority Country | |
| Priority Date | |
| Field Of Invention | BIO-MEDICAL ENGINEERING |
| Classification (IPC) | A61C0009000000, A61C0008000000, A61C0013000000, A61C0001080000, A61C0013340000 |

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Applicant

| Name | Address | Country |
|---|---|---|
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| Dr. Dhirendra Kumar Singh | Professor, Department of Periodontology, Kalinga Institute of Dental Sciences, KIIT Deemed to be University, Campus 5, Patia, Bhubaneshwar, Khurda, Odisha, Pin code- 751024, India. | India |
| Dr. Mohammad Jalaluddin | Professor, Department of Periodontology, Kalinga Institute of Dental Sciences, KIIT Deemed to be University, Campus 5, Patia, Bhubaneshwar, Khurda, Odisha, Pin code- 751024, India. | India |
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| Dr. Sanjay Kumar Sahoo | Associate Professor, Department of Periodontology, Kalinga Institute of Dental Sciences, KIIT Deemed to be University, Campus 5, Patia, Bhubaneshwar, Khurda, Odisha, Pin code-- 751024, India. | India |

**Abstract:**

Dentists have made prostheses using traditional methods, which are inconvenient and time-consuming. It includes functional impression taking, plaster model produ rim production, intermaxillary relationship and occlusal plane setting, artificial tooth arrangement, denture polymerization, polishing, etc. To make prostheses this wa patient must visit the dentist several times, and it takes a long time for them to receive treatment. In addition, the potential for errors associated with the denture-ma process and the use of denture materials has always existed. However, the recent use of digital technology in dentistry has made it possible to create digital prosthes techniques for the immediate loading of implants with fixed prostheses in edentulous patients have been developed. However, these partially digital techniques inclu laboratory work for prosthesis fabrication. This article aimed to describe a fully digital process for implant-supported fixed prostheses. It includes intra-oral scanning edentulous patients, implant placement planning, and final prosthesis fabrication. This technique facilitates a simple and more efficient immediate restoration after i placement without using stone casts.

Complete Specification

FIELD OF THE INVENTION

This invention relates to the implant-supported prosthesis rehabilitation, and more particularly this invention elaborates This report describes a fully digital implant-supported prosthesis approach for edentulous patients.

BACKGROUND OF THE INVENTION

Manually made analogue prosthesis for edentulous patients use impressions and plaster models. CAD/CAM is used in digital systems. Edentulous patients have a digital impression taken and their intermaxillary connection evaluated. Digital prosthesis is achievable with a digital imprint and intermaxillary connection. Implants and dentures were made using digital technology. Digital technology improves diagnostic and treatment operations. In edentulous individuals, immediately loading implants with a fixed prosthesis is proven. Cost, preoperative and postoperative time, laboratory help, and patient factors determine whether a final or provisional prosthesis is put. Prostheses constructed of resin or metal-reinforced resin. The present denture can be transformed into a pro-visional prosthesis by luting temporary cylinders on the implants and perforating the denture. After implant implantation

View Application Status

## Patent Search

| | |
|---|---|
| Invention Title | Innovative Solutions to address Oral Health in Rural Communities |
| Publication Number | 12/2022 |
| Publication Date | 25/03/2022 |
| Publication Type | INA |
| Application Number | 202241012654 |
| Application Filing Date | 08/03/2022 |
| Priority Number | |
| Priority Country | |
| Priority Date | |
| Field Of Invention | CHEMICAL |
| Classification (IPC) | A61Q0011000000, A61K0031122000, A24B0013000000, C07K0014685000, A61B0007040000 |

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Applicant

| Name | Address | Country |
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| Dr Mohammad Jalaluddin | Professor & Incharge, PG & PhD Guide, Department of Periodontics and Oral Implantology, Kalinga Institute of Dental Sciences, KIIT university, Bhubaneswar 751024 | India |

**Abstract:**

ABSTRACT Our Invention “Innovative Solutions to address Oral Health in Rural Communities” is to a The customary preventive consideration of the teeth and gums is keeping up with personal satisfaction and generally speaking wellbeing, assuming a part in forestalling sicknesses like diabetes and coronary illness. However, countr regularly need sufficient oral medical services and consequently pass up the advantages of good oral wellbeing too. A few variables have been very much recorded as the oral wellbeing difficulties of country America. Provincial people group need admittance to oral wellbeing suppliers because of geographic detachment and labor f deficiencies. A recent report observed that wellbeing proficiency is lower among provincial populaces. As far as oral wellbeing, chronic weakness proficiency can bring unfortunate oral cleanliness and trouble in exploring the oral wellbeing framework. Moreover, rustic occupants with low wellbeing proficiency are bound to consume improved drinks and more inclined to dental caries, as per a 2016/2021 article. Provincial people group frequently observe fluoridated water frameworks to be cost re Cigarette smoking is more common in rustic regions than in metropolitan regions (24.24% of grown-ups in nonmetro regions versus 17.64% of grown-ups in enormou regions), as well as smokeless tobacco use (6.74% of grown-ups)

**Complete Specification**

Claims:WE CLAIMS

1) Our Invention “Innovative Solutions to address Oral Health in Rural Communities” is to a The customary preventive consideration of the teeth and gums is signi in keeping up with personal satisfaction and generally speaking wellbeing, assuming a part in forestalling sicknesses like diabetes and coronary illness. However, co networks regularly need sufficient oral medical services and consequently pass up the advantages of good oral wellbeing too. A few variables have been very much recorded as adding to the oral wellbeing difficulties of country America. Provincial people group need admittance to oral wellbeing suppliers because of geographic detachment and labor force deficiencies. A recent report observed that wellbeing proficiency is lower among provincial populaces. As far as oral wellbeing, chronic weakness proficiency can bring about unfortunate oral cleanliness and trouble in exploring the oral wellbeing framework. Moreover, rustic occupants with low wellb proficiency are bound to consume sugar-improved drinks and more inclined to dental caries, as per a 2016/2021 article. Provincial people group frequently observe fluoridated water frameworks to be cost restrictive. Cigarette smoking is more common in rustic regions than in metropolitan regions (24.24% of grown-ups in nonr regions versus 17.64% of grown-ups in enormous metro regions), as well as smokeless tobacco use (6.74% of grown-ups)

2) According to claim1# the invention is to a “Innovative Solutions to address Oral Health in Rural Communities” is to a The customary preventive consideration of teeth and gums is significant in keeping up with personal satisfaction and generally speaking wellbeing, assuming a part in forestalling sicknesses like diabetes and coronary illness.

3) According to claim1, 2# the invention is to a country networks regularly need sufficient oral medical services and consequently pass up the advantages of good wellbeing too. A few variables have been very much recorded as adding to the oral wellbeing difficulties of country America

View Application Status

Australian Government

IP Australia

# CERTIFICATE OF GRANT

# INNOVATION PATENT

**Patent number:** 2021107105

The Commissioner of Patents has granted the above patent on 15 December 2021, and certifies that the below particulars have been registered in the Register of Patents.

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**Title of invention:**

DISTOMOLAR SOFT TISSUE PINCER

**Name of inventor(s):**

Jalaluddin, Mohammad; Mohanty, Pritam; Nazeer, Nazia; Ganguli, Bidushi; Beura, Shyam Sundar; Avijeeta, Anisha; Panda, Monalisa; Mishra, Aiswarya; Mago, Harneet Singh and Moinuddin, Mohammad

**Term of Patent:**

Eight years from 25 August 2021

NOTE: This Innovation Patent cannot be enforced unless and until it has been examined by the Commissioner of Patents and a Certificate of Examination has been issued. See sections 120(1A) and 129A of the Patents Act 1990, set out on the reverse of this document.

COMMONWEALTH OF AUSTRALIA AUSTRALIA PATENT OFFICE

Dated this 14th day of January 2022

Commissioner of Patents

## Application Details

***2021107105***
***: DISTOMOLAR SOFT TISSUE PINCER***

BIBLIOGRAPHIC DATA

### Application details

| | | | | | |
|---|---|---|---|---|---|
| **Australian application number** | 2021107105 | **Patent application type** | Innovation | | |
| **Application status** | GRANTED | **Paid to date** | 2023-08-25 | **First IPC Mark** | **A61B 17/3201** (2021.01) |
| **Currently under opposition** | No | **Proceeding type(s)** | | | |
| **Invention title** | DISTOMOLAR SOFT TISSUE PINCER | | | | |
| **Inventor(s)** | Jalaluddin, Mohammad ; Mohanty, Pritam ; Nazeer, Nazia ; Ganguli, Bidushi ; Beura, Shyam Sundar ; Avijeeta, Anisha ; Panda, Monalisa ; Mishra, Aiswarya ; Mago, Harneet Singh ; Moinuddin, Mohammad | | | | |
| **Agent name** | Eagar & Associates Pty Ltd | **Address for legal service** | QLD 4215 Australia show full address | | |
| **Filing date** | 2021-08-25 | **Australian OPI date** | 2022-01-06 | **OPI published in journal** | |
| **Effective date of patent** | 2021-08-25 | **Expiry date** | 2029-08-25 | | |
| **Additional/Divisional application number** | | | **Additional/Divisional relationship** | | |

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| **Old name(s)** | | | |

### IPC details

| Int Cl. | | Version | First Mark |
|---|---|---|---|
| **A61B** | **17/3201** | (2021.01) | Y |
| **A61C** | **3/00** | (2021.01) | N |

## Priority details

| Earliest priority date | 2021-08-25 | | |
|---|---|---|---|
| **Type** | **Number** | **Filing date** | **Priority date** |

## Associated provisional(s)

| Provisional number | Title | Filing date |
|---|---|---|

SPECIFICATION/E-REGISTER

EDOSSIER

LIFECYCLE DETAILS

FEE/PUBLICATION HISTORY

OWNERSHIP DETAILS

OPPOSITIONS, DISPUTES & AMENDMENTS

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Submission of Relevant Material (S27,S28)

This data is current as of **2023-12-17 18:00 AEDT**.

## Patent Search

| | |
|---|---|
| Invention Title | A POINT OF CARE APPARATUS, METHOD AND KIT FOR DETECTING STREPTOCOCCUS PNEUMONIA |
| Publication Number | 42/2022 |
| Publication Date | 21/10/2022 |
| Publication Type | INA |
| Application Number | 202011053668 |
| Application Filing Date | 10/12/2020 |
| Priority Number | |
| Priority Country | |
| Priority Date | |
| Field Of Invention | CHEMICAL |
| Classification (IPC) | A61K0047360000, A61K0039090000, A61K0009000000, A61G0011000000, A61G0007050000 |

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**Abstract:**

The present disclosure relates to a low cost, user friendly, gold nanoparticle-based point of care kit for measuring Pneumolysin in urine for the diagnosis of Pneumon children. The fluorescence based lateral flow test enables rapid detection of Pneumolysin protein in very low quantities also. The present invention also provides conj monoclonal anti-pneumolysin antibody with gold nanoparticle.

Complete Specification

FIELD OF THE INVENTION

[001] The present disclosure relates to a rapid, user friendly and cost-effective lateral flow immunoassay-based apparatus, relevant method and kit for the detecti o Streptococcus pneumoniae.

BACKGROUND OF THE INVENTION

[002] Child pneumonia is a global concern and is single leading cause of morbidity and mortality worldwide. Pneumonia in children is caused by several pathogens the most common bacteria causing pneumonia in children is Streptococcus pneumoniae. For detection of this pathogen in different biological fluids, there are arra experimental protocols known in the art, such as PCR, ELISA, Western blot and culture. However, the currently available detection methods for Streptococcus pneur are tedious, time consuming and few protocols lack sensitivity in children. Further, due to inherent difficulties in handling assays, a skilled technician is needed to pe the test. [003] Thus, the available methods are cumbersome and time consuming to obtain results. Therefore, to overcome the aforesaid problems, there is an urge need to develop a user friendly, point of care quick detection method for early diagnosis of child pneumonia. Taking this view in mind, the present disclosure provid gold nanoparticle based immunochromatographic test strip to specifically detect pneumolysin-a protein released by Streptococcus pneumoniae in the urine of chilc suffering from pneumonia (harbouring the bacteria) and is not in urine of healthy nasopharyngeal carriers. It is pertinent to note that a rapid immunochromatograp test kit detecting group C polysaccharide cell wall antigen common to all pneumococcal strains (commercially known as NOW S. pneumoniae urinary antigen test, B is used for the diagnosis of pneumococcal pneumonia in adults. Although, the test shows high degree of specificity and sensitivity in adults, it lacks specificity in pneumonic children due to false positivity in healthy subjects carrying Pneumococci in nasopharynx. The apparatus and method of the present disclosure overcom

View Application Status

Australian Government

IP Australia

# CERTIFICATE OF GRANT

# INNOVATION PATENT

**Patent number:** 2021104943

The Commissioner of Patents has granted the above patent on 30 March 2022, and certifies that the below particulars have been registered in the Register of Patents.

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**Title of invention:**

INTELLIGENT CIRCUIT ENABLE COVID-19 DETECTION FRAMEWORK USING IOT

**Name of inventor(s):**

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**Term of Patent:**

Eight years from 4 August 2021

NOTE: This Innovation Patent cannot be enforced unless and until it has been examined by the Commissioner of Patents and a Certificate of Examination has been issued. See sections 120(1A) and 129A of the Patents Act 1990, set out on the reverse of this document.

COMMONWEALTH OF AUSTRALIA AUSTRALIA PATENT OFFICE

Dated this 30th day of March 2022

Commissioner of Patents

## Application Details

***2021104943***
***: INTELLIGENT CIRCUIT ENABLE COVID-19 DETECTION FRAMEWORK USING IOT***

BIBLIOGRAPHIC DATA

### Application details

| | | | | | |
|---|---|---|---|---|---|
| **Australian application number** | 2021104943 | **Patent application type** | Innovation | | |
| **Application status** | GRANTED | **Paid to date** | 2023-08-04 | **First IPC Mark** | **G16Y 40/20** (2021.01) |
| **Currently under opposition** | No | **Proceeding type(s)** | | | |
| **Invention title** | INTELLIGENT CIRCUIT ENABLE COVID-19 DETECTION FRAMEWORK USING IOT | | | | |
| **Inventor(s)** | Mohanty, Debapreeti ; Sabata, Swarnalata ; Mohanty, Pritam ; Reddy, Mora Sathi Rami ; Mohanty, Priyam ; Sabat, Sivani ; Bindhani, Bikash Ranjan ; Roy, Sanchari Sinha ; Acharya, Biswaranjan ; Guru, Rachita ; Rout, Barnalee ; Dash, Samarendra. ; Shrivastava, Shristi | | | | |
| **Agent name** | Thomas, John MR | **Address for legal service** | 1051 New Zealand show full address | | |
| **Filing date** | 2021-08-04 | **Australian OPI date** | 2022-04-14 | **OPI published in journal** | |
| **Effective date of patent** | 2021-08-04 | **Expiry date** | 2029-08-04 | | |
| **Additional/Divisional application number** | | | **Additional/Divisional relationship** | | |

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| **Old name(s)** | | | |

## IPC details

| Int Cl. | Version | First Mark |
|---|---|---|
| **G16Y 40/20** | (2021.01) | Y |
| **A61B 5/00** | (2021.01) | N |
| **A61B 5/01** | (2021.01) | N |
| ***A61B 5/024*** | (2021.01) | N |
| **A61B 5/08** | (2021.01) | N |
| **A61B 5/145** | (2021.01) | N |
| **G16H 50/20** | (2021.01) | N |
| **G16Y 10/60** | (2021.01) | N |
| **G16Y 20/40** | (2021.01) | N |

## Priority details

**Earliest priority date** 2021-08-04

| Type | Number | Filing date | Priority date |
|---|---|---|---|

## Associated provisional(s)

| Provisional number | Title | Filing date |
|---|---|---|

SPECIFICATION/E-REGISTER

EDOSSIER

LIFECYCLE DETAILS

FEE/PUBLICATION HISTORY

OWNERSHIP DETAILS

OPPOSITIONS, DISPUTES & AMENDMENTS

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Submission of Relevant Material (S27,S28)

This data is current as of **2023-12-17 18:00 AEDT**.

## Application Details

***2021103140***
***: SMART PORTABLE APPARATUS FOR SALINE SOLUTION LEVEL DETECTION AND ALERTING SYSTEM FOR AUTOMATIC PATIENT CARE***

BIBLIOGRAPHIC DATA

### Application details

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| **Invention title** | SMART PORTABLE APPARATUS FOR SALINE SOLUTION LEVEL DETECTION AND ALERTING SYSTEM FOR AUTOMATIC PATIENT CARE | | | | |
| **Inventor(s)** | Dash, Samarendra ; Mago, Beenu ; Mahdi, Hussain Falih ; Dhanuka, Anubhuti ; Mohanty, Pritam ; Acharya, Biswaranjan ; Sharma, Deepak Pal ; Mohanty, Debapreeti ; Sabata, Swarnalata | | | | |
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### IPC details

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