RESPONSE TO FIRST EXAMINATION REPORT
PATENT APPLICATION No. 202011024411

Via e-filing

Controller of Patents : Shri Hitendra Sharma

The Controller of Patents
Patent Office Branch
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Deadline to file response to First Examination Report:

March 15, 2022

Indian Patent Application No.	:	202011024411
Date of Filing	:	10/06/2020
Title	:	CONTACTLESS DOORBELL APPARATUS
Applicant	:	UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
Date of FER	:	15/09/2021

Respected Sir,

We write in response to your office letter dated September 15, 2021.

Our response to the objections raised is as follows:

Response to Objection Part II (1):

Applicant notes that the claims of the present application have been held to lack inventive step in view of D1: US20150109128A1 and D2: US9055202B1.

Applicant would like to traverse the Examiner's rejection below by pointing out several important differences between the present invention as claimed in the amended claims and those taught by the cited references.Applicant has amended the original independent Claim 1, to more clearly describe the present invention. The amended claims clearly distinguish the present invention from the cited references. In order to better illustrate some of the key elements of the present invention, amended claim 1 has been duplicated below,

1. A contactless doorbell apparatus (102), comprising:

a doorbell housing (502);

an ultrasonic sensor (202) configured to detect an indication suggestive of a hand of a visitor within a predefined distance towards the doorbell housing (502);

a human detection sensor (212) configured to detect the hand of the visitor on receiving the indication from the ultrasonic sensor (202), characterized in that:

a wave detection sensor (204) coupled with the human detection sensor (212) to detect a wave gesture from the hand of the visitor;

a switch (206) configured to generate a chime signal for a predefined time duration on detection of the wave gesture from the wave detection sensor (204);

a controller (302) configured with the ultrasonic sensor (202), the human detection sensor (212), the wave detection sensor (204) to execute a plurality of instructions related to the detection of the hand of the visitor within the predefined distance, and generating the chime signal for the predefined time duration, wherein the controller (302) switches the ultrasonic sensor (202) to a sleep mode after a predefined operational time duration when the ultrasonic sensor (202) does not detect the indication suggestive of the hand of the visitor within the predefined distance;

a light indicator (208) coupled with the switch (206) to indicate a plurality of colors corresponding to a plurality of states, wherein the light indicator (208) is configured to indicate a first color indicative of an active state of the doorbell housing (502) to respond to the wave gesture of the visitor, wherein the ultrasonic sensor (202), the human detection sensor (212), the wave detection sensor (204), the switch (206), the light indicator (208), the power source (210) are positioned within the doorbell housing (502); and

a power source (210) to supply power to the ultrasonic sensor (202), the human detection sensor (212), the wave detection sensor(204), the switch (206), the controller (302), and the light indicator (208).

The applicant respectfully submits that claims have been amended in respect to the section 2(1)(ja). Original filed claim 2, 3 and 9 are merged with the independent claim to lead towards an inventive step. Further, claim 1 has been characterized in order to define the inventive step over the cited documents D1-D2. Amended claims are well supported by the original filed specification and original filed drawing.

The present contactless doorbell apparatus is implemented in dealing with switching operation of high-power rating devices which often led to shock due to high current and earthing conditions of the place. Thus, the present contactless doorbell apparatus serves multiple purposes in switching application i.e. prevent the spread of surface adhering viruses due to direct contact and switching of high-power units without subjecting to shocks and other electrical injuries. Thus the present contactless doorbell apparatus is portable and can be installed at any desires location using mechanical fitting as used in electrical switch installation.

Further, the present invention helps to prevent false triggering of the bell because of action of some other entity such as wall-crawling lizards, insects, and motion within the vicinity of the contactless doorbell apparatus, the contactless doorbell apparatus recognizes the human and its waving action using the human detection sensor, and the wave detection sensor. The detection operation is executed using ultrasonic sensor to detect the distance of hand, the human detection sensor detects human physical movements.

Document D1 discloses a method of handling a visitor at a smart environment that comprises a plurality of smart devices, the method includes of detecting visitor information associated with the visitor at the smart environment using a first smart device of the plurality of smart devices; analyzing the detected visitor information using a computing system that is communicatively coupled to the first smart device; and based on the analyzing, providing feedback from the computing system to the visitor via a second smart device of the plurality of smart devices, wherein the feedback comprises a status message indicative of an occupant of the smart environment being notified of the visitor's presence at the smart environment. D1 however fails to disclose a contactless doorbell apparatus

includes a wave detection sensor coupled with the human detection sensor to detect a wave gesture from the hand of the visitor.

In more particular, the subject matter of the present invention relates to the contactless doorbell apparatus, whereas the document D1 relates to a method of handling a visitor at a smart environment which is totally different as compared with the subject matter claimed in the present invention. Hence, the present invention is inventive in view of the document D1.

Further, the document D1 is silent on detection of false triggering of the bell because of action of some other entity such as wall-crawling lizards, insects, and motion within the vicinity of the contactless doorbell apparatus. The present invention includes a human detection sensor configured to detect the hand of the visitor on receiving the indication from the ultrasonic sensor; a wave detection sensor coupled with the human detection sensor to detect a wave gesture from the hand of the visitor.

Furthermore, the document D1 nowhere mentions about a light indicator coupled with the switch to indicate a plurality of colors corresponding to a plurality of states, wherein the light indicator is configured to indicate a first color indicative of an active state of the doorbell housing to respond to the wave gesture of the visitor, wherein the ultrasonic sensor, the human detection sensor, the wave detection sensor, the switch, the light indicator, the power source are positioned within the doorbell housing.

The Applicant further most respectfully disagrees with the assertion of the Learned Controller that claims lack inventive step and without acquiescing to the validity of this objection, submits that for the below mentioned detailed arguments the subject matter of the presently amended claims of the present application are clearly inventive over the cited prior art documents D1 and D2 taken alone or in combination. The Applicant respectfully submits that in order to appreciate the inventive step of the claimed invention, it is

important to take note of the settled proposition of law on inventive step and obviousness reflected in a catena of decisions that the prior art reference must teach or suggest all the claim limitations and also mere identification in the prior art of each component of an invention does not show that the combination as a whole lacks the necessary attributes for patentability. Rather, to establish a prima facie case of obviousness based on a combination of elements in the prior art, the law requires a motivation to select the references and to combine them in the particular claimed manner to reach the claimed invention.

Document D2 discloses a doorbell system comprising a doorbell, wherein the doorbell system includes a button configurable to enable a visitor to sound a chime; a visitor detection system having at least one of a camera assembly, a motion detector assembly, and an infrared detector assembly, wherein the visitor detection system is configurable to detect the visitor within a field of view of the visitor detection system; an outer housing coupled to the visitor detection system, wherein the visitor detection system comprises a first sensor configurable to detect a first indication suggestive of the visitor within the field of view, and a second sensor configurable to detect a second indication suggestive of the visitor within the field of view; and a wall that separates the first sensor from the second sensor, wherein the wall divides the field of view such that the first sensor is configured to detect the first indication within a first portion of the field of view and the second sensor is configured to detect the second indication within a second portion of the field of view, wherein the button, the first sensor, and the second sensor face outward towards the field of view, wherein an outer surface of the wall faces outward, and the outer surface of the wall is located further outward than an outer surface of the first sensor and an outer surface of the second sensor. D2 however fails to disclose or suggest a contactless doorbell apparatus

includes a wave detection sensor coupled with the human detection sensor to detect a wave gesture from the hand of the visitor.

Further, the document D2 is silent on detection of false triggering of the bell because of action of some other entity such as wall-crawling lizards, insects, and motion within the vicinity of the contactless doorbell apparatus. The present invention includes a human detection sensor configured to detect the hand of the visitor on receiving the indication from the ultrasonic sensor; a wave detection sensor coupled with the human detection sensor to detect a wave gesture from the hand of the visitor.

Furthermore, the document D2 nowhere mentions about a light indicator coupled with the switch to indicate a plurality of colors corresponding to a plurality of states, wherein the light indicator is configured to indicate a first color indicative of an active state of the doorbell housing to respond to the wave gesture of the visitor, wherein the ultrasonic sensor, the human detection sensor, the wave detection sensor, the switch, the light indicator, the power source are positioned within the doorbell housing.

As both D1 and D2 fail to disclose or suggest the amended features of claim 1, the subject matter as claimed cannot be held to lack inventive step in view of the cited documents. Thus, the subject matter as claimed in amended claim 1 is inventive over D1 and D2 either alone or in any combination thereof. Keeping in view the above, Applicant humbly requests for reconsideration and waiver of the aforesaid objection.

Response to Part III- Formal Requirements:

Applicant submits the following to comply with the above objection:

Our Submission: It is respectfully submitted that captioned application is an ordinary application and is only filed in India and thus there exists no corresponding foreign application filed for this matter. The Applicant humbly

submits and undertakes that that they have not filed any foreign application corresponding to the instant patent application till date. Since, Form 3 was already filed on 10/06/2020 with indication of NO/NIL foreign filing declaration and subsequently till date there is no corresponding foreign filing. In the view of above submission, we request the Learned Controller of Patents to withdraw the Objection.

Our Submission: Amended abstract is being submitted herewith in accordance with instructions contained in rule 13(7) of the Patents Rules, 2003 (as amended).

In view of the above and the documents enclosed, it is requested that the Objections of Part III shall be waived.

With the above, the Applicant believes that all the objections contained in the FER are appropriately addressed and hence, humbly pray for early grant of the Application. In the event the decision of the learned Controller of Patents is adverse to the Applicant, we humbly request that the Applicant be given an opportunity to be heard as per the provisions of Section 14 of the Indian Patents Act, 1970.

We thank you in advance for your cooperation in this regard.

Yours faithfully,

Dated 06/03/2022

Vikas Asawat
Patent Agent- INPA 1407
On Behalf of Applicant
Digitally Signed

Enclosure:

- Amended Claims- Marked Copy and Clean Copy
- Amended Abstract- Marked Copy and Clean Copy