



(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic.in>)

## Patent Search

Invention Title	An Advance Automatic Railway Gate Controller with Elevated Speed Alerting System Using IOT
Publication Number	52/2022
Publication Date	30/12/2022
Publication Type	INA
Application Number	202241073660
Application Filing Date	19/12/2022
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	ELECTRICAL
Classification (IPC)	B61L0029280000, B61L0029240000, B61L0023060000, B61L0029020000, B61L0029300000

### Inventor

Name	Address	Country
Dr Shubhangi D C	Professor, Department of computer science and Engineering, Visvesvaraya Technological university(VTU), center for PG studies, KALABURAGI-585105 Karnataka, India drshubhangipatil1972@gmail.com	India
Dr Baswaraj Gadgay	Professor and Regional Director, Visvesvaraya Technological University (VTU),Regional Campus,Kalaburagi-585105,karnatka, India mail id 1: b_gadgay@rediffmail.com mail id 2:baswaraj.gadgay@vtu.ac.in	India
Dr Mohammed Abdul Waheed	Associate Professor, Department of computer science and Engineering, Visvesvaraya Technological university(VTU), center for PG studies, KALABURAGI-585105 Karnataka, India Mail ID : mawaheed@gmail.com	India
Syeda Bisma Taqdees	Roll No. 3VY20SCS21 Visvesvaraya Technological university(VTU), center for PG studies, KALABURAGI-585105 Karnataka, India	India
Syeda Faiza Fatima	Roll No. 3VY20SCS22 Visvesvaraya Technological university(VTU), center for PG studies, KALABURAGI-585105 Karnataka, India	India
Syeda Fareeha Naaz	Roll No. 3VY20SCS23 Visvesvaraya Technological university(VTU), center for PG studies, KALABURAGI-585105 Karnataka, India	India
Varsha Tadalapur	Roll No. 3VY20SCS24 Visvesvaraya Technological university(VTU), center for PG studies, KALABURAGI-585105 Karnataka, India	India
Waseemunnisa	Roll No. 3VY20SCS25 Visvesvaraya Technological university(VTU), center for PG studies, KALABURAGI-585105 Karnataka, India	India
Prashant Bachanna	Assistant professor, Department of ECE, Institute Of Aeronautical Engineering ,Dundigal, Hyderabad prashantece403@gmail.com	India

### Applicant

Name	Address	Country
Dr Shubhangi D C	Professor, Department of computer science and Engineering, Visvesvaraya Technological university(VTU), center for PG studies, KALABURAGI-585105 Karnataka, India drshubhangipatil1972@gmail.com	India
Dr Baswaraj Gadgay	Professor and Regional Director, Visvesvaraya Technological University (VTU),Regional Campus,Kalaburagi-585105,karnatka, India mail id 1: b_gadgay@rediffmail.com mail id 2:baswaraj.gadgay@vtu.ac.in	India
Dr Mohammed Abdul Waheed	Associate Professor, Department of computer science and Engineering, Visvesvaraya Technological university(VTU), center for PG studies, KALABURAGI-585105 Karnataka, India Mail ID : mawaheed@gmail.com	India
Syeda Bisma Taqdees	Roll No. 3VY20SCS21 Visvesvaraya Technological university(VTU), center for PG studies, KALABURAGI-585105 Karnataka, India	India
Syeda Faiza Fatima	Roll No. 3VY20SCS22 Visvesvaraya Technological university(VTU), center for PG studies, KALABURAGI-585105 Karnataka, India	India
Syeda Fareeha Naaz	Roll No. 3VY20SCS23 Visvesvaraya Technological university(VTU), center for PG studies, KALABURAGI-585105 Karnataka, India	India
Varsha Tadalapur	Roll No. 3VY20SCS24 Visvesvaraya Technological university(VTU), center for PG studies, KALABURAGI-585105 Karnataka, India	India
Waseemunnisa	Roll No. 3VY20SCS25 Visvesvaraya Technological university(VTU), center for PG studies, KALABURAGI-585105 Karnataka, India	India
Prashant Bachanna	Assistant professor, Department of ECE, Institute Of Aeronautical Engineering ,Dundigal, Hyderabad prashantece403@gmail.com	India

**Abstract:**

ABSTRACT [1] Our Invention "An advance Automatic railway gate controller with elevated speed alerting system using IOT" has been claimed. Majority of the people like trains because it is affordable comfortable and fastest mode of transportation. In spite of large usage of railways, It is still not developed in technology in certain area crossings. level crossing gates are still manually operated and many unmanned railway gates are present. Railway gates are mainly used to save the road users to prevent accidents from occurring. The information about appearance of train for opening or ending of door is entered from near station. But some road crossings are completely unmanned and numerous road accidents do at these unmanned position crossings. To avoid the mortal intervention at position crossings fully, we need to automate of road gate control In every level crossing there are so many of the railway accidents are occurring due to the carelessness and lack of experienced workers. The main of this invention is to control and operate the railway gate automatically and prevent accidents to save precious human lives. It helps to prevent accidents from occur reduce the manual labour. Here, we use Arduino and IR sensor. IR sensor use the IR transmitter to pass the arrival of train information, IR receiver receives the information pass it to the micro controller. Arduino use the DC motor to close or open the gate. This invention is implemented using sensor technique. We placed the sensors at a distance from the gate detects the approaching train and accordingly controls the operation of the gate. Also an indicator light has been provided to alert the motorist approaching train.

**Complete Specification**

**Description:DESCRIPTION OF THE INVENTION**

[11] A pair of IR LED is used at aft side and both the IR LEDs are illuminated continuously by laser lights. The same arrangement is made at the foreside. A pair of IR and laser light is used as sensor. When train comes from aft side and the beam of light falling on both the IR LEDs are disturbed by the train then only a signal goes to the micro controller and then micro controller is activated and program installed in the controller memory is executed. After receiving signal from aft side sensor, micro controller activates buzzer alarm. Buzzer remains active for so that people find time to clear the gate.

[12] IR Detector An IR detector is used in this design to sense the appearance and departure of the train. An IR Sensor generally comprises of two factors an IR Transmitter and an IR Receiver. An IR Transmitter is a device that emits IR Shafts. Also, an IR Receiver is a device that detects the IR Shafts. Photo Diodes are the most generally used IR Receivers.

[13] L293D is a motor motorist IC used in this design to control the gate motor. L293D Motor Drive IC is a binary H- ground type motor motorist and is available in Binary in-line Package. With the help of this motor motorist IC, we can control two motors at a time with both forward and rear direction control for individual motor.

[14] Major Factors of our design are 8051 microcontroller (AT89C51), Reflective Type IR Sensor, L293D Motor Motorist IC and a Motor. The obligatory connections are as follows:

[View Application Status](#)



Terms & conditions (<http://ipindia.gov.in/terms-conditions.htm>) Privacy Policy (<http://ipindia.gov.in/privacy-policy.htm>)  
Copyright (<http://ipindia.gov.in/copyright.htm>) Hyperlinking Policy (<http://ipindia.gov.in/hyperlinking-policy.htm>)  
Accessibility (<http://ipindia.gov.in/accessibility.htm>) Archive (<http://ipindia.gov.in/archive.htm>) Contact Us (<http://ipindia.gov.in/contact-us.htm>)  
Help (<http://ipindia.gov.in/help.htm>)

Content Owned, updated and maintained by Intellectual Property India, All Rights Reserved.

Page last updated on: 26/06/2019



Office of the Controller General of Patents, Designs & Trade Marks  
Department of Industrial Policy & Promotion,  
Ministry of Commerce & Industry,  
Government of India

(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic.in/index.htm>)

#### Application Details

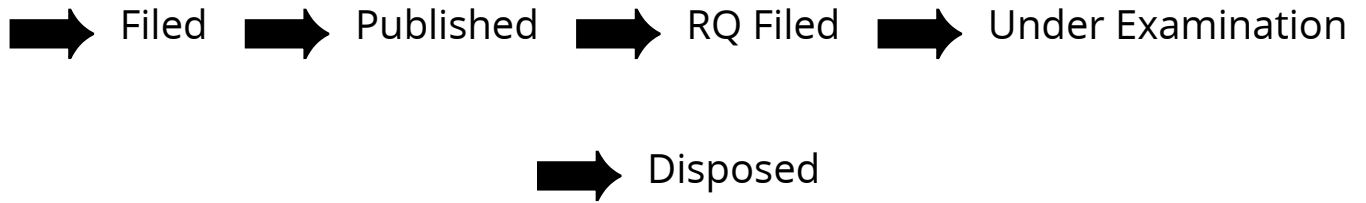
APPLICATION NUMBER	202241073660
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	19/12/2022
APPLICANT NAME	1 . Dr Shubhangi D C 2 . Dr Baswaraj Gadgay 3 . Dr Mohammed Abdul Waheed 4 . Syeda Bisma Taqdees 5 . Syeda Faiza Fatima 6 . Syeda Fareeha Naaz 7 . Varsha Tadalapur 8 . Waseemunnisa 9 . Prashant Bachanna
TITLE OF INVENTION	An Advance Automatic Railway Gate Controller with Elevated Speed Alerting System Using IOT
FIELD OF INVENTION	ELECTRICAL
E-MAIL (As Per Record)	drshubhangipatil1972@gmail.com
ADDITIONAL-EMAIL (As Per Record)	
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	30/12/2022

#### Application Status

APPLICATION STATUS

## Awaiting Request for Examination

[View Documents](#)



In case of any discrepancy in status, kindly contact [ipo-helpdesk@nic.in](mailto:ipo-helpdesk@nic.in)