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(31) Priority Document No	:NA	1)SRI VENKATESHWARA COLLEGE OF ENGINEERING
(32) Priority Date	:NA	Address of Applicant :KIA ROAD, VIDYANAGAR, BENGALURU Karnataka India
(33) Name of priority country	:NA	(72)Name of Inventor :
(86) International Application No	:NA	1)SURAJ S
Filing Date	:NA	2)Dr. JYOTHI C. ABBAR
(87) International Publication No	: NA	3)Dr. NAGESWARA GUPTHA M
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(57) Abstract :

The present invention relates to the Cyclists Helmet mounted with portable safety indicator lighting system. These indicators are attached on the left and right side of the cyclists helmet. These indicators are synchronised with the externally attached bicycle indicators. This system comprises of one directional indicator unit and one helmet indicator unit along with one directional indicator control switch. The directional indicator unit is made into two parts as the direction indicator unit and transmitting unit. The direction indicator unit consists of atleast two light dependent resistors that are placed after atleast two leds alternatively on each side of the left and right direction indicators. The transmitting unit consists of one bluetooth module, one microcontroller arduino Nano board, one battery and one power supply toggle switch. The Helmet indicator unit comprises of two parts, the receiving unit and the helmet indicators mounted on left and right side of the helmet. The receiver unit consists of one bluetooth module, one microcontroller arduino Nano board, one battery and one power supply toggle switch. The helmet indicators consist of two sticker based LED strip that are placed on the left and right sides of the cyclists helmet. Each LED strips contains atleast 10 surface mounted multicoloured LED connected in series that operates in falling rain fashion. Directional indicator unit will be placed just below the seat on the back side of the cycle using a clip kind of holder. This is connected to the directional control switch kept on the left side of the bicycle handle. The Helmet indicator unit will be attached on the back side of the helmet. The synchronization process between the directional indicator system on the bicycle and the helmet indicators is happening with the help of bluetooth wireless technology. Once the cyclist switches the left indicator on the control switch at the same time the left indicator mounted on the helmet turns on which is in synchronous with the left indicator of the externally attached directional indicator and similarly it happens for the right side indicator too. This system is portable as it can be externally attached to any cycle and on any cyclist helmet. This kind of helmet indicator system will ensure safety of cyclists as well as the fellow passengers irrespective of any weather conditions.

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Patent Search

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Inventor

Name	Address	Country	Nation
SURAJ S	SRI VENKATESHWARA COLLEGE OF ENGINEERING, KIA ROAD, VIDYANAGAR, BENGALURU - 562 157	India	India
Dr. JYOTHI C. ABBAR	SRI VENKATESHWARA COLLEGE OF ENGINEERING, KIA ROAD, VIDYANAGAR, BENGALURU - 562 157	India	India
Dr. NAGESWARA GUPTHA M	SRI VENKATESHWARA COLLEGE OF ENGINEERING, KIA ROAD, VIDYANAGAR, BENGALURU - 562 157	India	India

Applicant

Name	Address	Country	Nationality
SRI VENKATESHWARA COLLEGE OF ENGINEERING	KIA ROAD, VIDYANAGAR, BENGALURU	India	India

Abstract:

The present invention relates to the Cyclist's Helmet mounted with portable safety indicator lighting system. These indicators are attached on the left and right side of the cyclists' helmet. These indicators are synchronised with the externally attached bicycle indicators. This system comprises of one directional indicator unit and one helmet indicator unit along with one directional indicator control switch. The directional indicator unit is made into two parts as the direction indicator unit and transmitting unit. The directional indicator unit consists of at least two light dependent resistors that are placed after at least two LEDs alternatively on each side of the left and right directional indicators. The transmitting unit consists of one bluetooth module, one microcontroller arduino Nano board, one battery and one power supply toggle switch. The Helmet indicator unit comprises of two parts, the receiving unit and the helmet indicators mounted on left and right side of the helmet. The receiver unit consists of one bluetooth module, one microcontroller arduino Nano board, one battery and one power supply toggle switch. The helmet indicators consist of two sticker based LED strips that are placed on the left and right sides of the cyclist's helmet. Each LED strip contains at least 10 surface mounted multicoloured LED connected in series that operates in falling rain fashion. The directional indicator unit will be placed just below the seat on the back side of the cycle using a clip kind of holder. This is connected to the directional control switch kept on the left of the bicycle handle. The Helmet indicator unit will be attached on the back side of the helmet. The synchronization process between the directional indicator system on the bicycle and the helmet indicators is happening with the help of bluetooth wireless technology. Once the cyclist switches the left indicator on the control switch at the same time the indicator mounted on the helmet turns on which is in synchronisation with the left indicator of the externally attached directional indicator and similarly it happens for the right indicator too. This system is portable as it can be externally attached to any cycle and on any cyclist helmet. This kind of helmet indicator system will ensure safety of cyclists as well as the fellow passengers irrespective of any weather conditions.

Complete Specification

DESCRIPTION OF THE INVENTION:

Field of Invention

The present invention refers to a cyclist's helmet mounted with safety indicators lighting system. These indicators are placed on the left and right side of the cyclist helm which are in synchronous with the externally attached indicators of the cycle. Helmet indicators in sync with cycle indicators will ensure an easiest way to help the cyclist well as the following vehicles ensuring safety and confident riding on the roads.

Back Ground of Invention

All the citizens have their own responsibility in keeping their own road ways safe for themselves as well as other drivers, fellow passengers to avoid unexpected traffic incidents. When we think of cyclists, many times it so happens that extra indicators installed on cycles may not be visible for the fellow passengers' due to fog, rain and snow-white weather or at night, dark environment and also because of more than expected heavy traffic. Therefore in order to ensure and guarantee the safety of cyclists we have come up with product of invention in which indicator lighting system is integrated on to the cyclist helmet on both sides.

In spite of bad weather conditions or unexpected situations when the cycle indicators become invisible, with the present system of invention we assure that indicators on helmet with its sharp intense LED lights give better visibility by altering and improving the existing direction indicator system.

Brief Description of Figures

The present process of application will be further explained based on its embodiments and its drawings. Here the drawings are given just as illustration and will not be limited in the application.

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