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भारत सरकार GOVERNMENT OF INDIA पेटेंट कार्यालय THE PATENT OFFICE पेटेंट प्रमाणपत्र PATENT CERTIFICATE (Rule 74 of The Patents Rules)

पेटेंट सं. / Patent No.

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5244/CHE/2012

17/12/2012

फाइल करने की तारीख / Date of Filing

पेटेंटी / Patentee

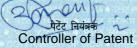
VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकटित A WIRE-LESS SYSTEM TO RELIABLY CONTROL A LARGE NETWORK OF STREET LIGHTING SYSTEMS FROM A CENTRAL LOCATION THROUGH FM BROADCAST नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख दिसम्बर 2012 के सत्रहवें दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled A WIRE-LESS SYSTEM TO RELIABLY CONTROL A LARGE NETWORK OF STREET LIGHTING SYSTEMS FROM A CENTRAL LOCATION THROUGH FM BROADCAST as disclosed in the above mentioned application for the term of 20 years from the 17th day of December 2012 in accordance with the provisions of the Patents Act, 1970.



अनुदान की तारीख : 07/11/2022 Date of Grant :



टिपपणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, दिसम्बर 2014 के सत्रहवें दिन को और उसके पश्चात प्रत्येक वर्ष मे उसी दिन देय होगी। Note. - The fees for renewal of this patent, if it is to be maintained will fall / has fallen due on 17th day of December 2014 and on the same day in every year thereafter.



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Application Details			
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TITLE OF INVENTION	A WIRE-LESS SYSTEM TO RELIABLY CONTROL A LARGE NETWORK OF STREET LIGHTING SYSTEMS FROM A CENTRAL LOCATION THROUGH FM BROADCAST		
FIELD OF INVENTION	COMMUNICATION		
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(57) Abstract :

A wire-less system to reliably control a large network of street lighting systems from a central location through FM broadcast, comprising a transmitter module located at a Central Power Station controlling distribution of electrical power to consumers, and a receiver module installed on the street lighting system, the receiver module is operating under power switching technologies based on the signals transmitted wirelessly by the transmitter module, wherein a dual tone multi-frequency (DTMF) encoder echo-coupled to a frequency modulation (FM) transmitter causing the transmitter to transmit encoded DTMF signals, wherein the receiver having a DTMF decoder, a micro controller, a LCD device, a relay driver including a relay unit, the receiver receiving the encoded signals which is decoded by the decoder, processed by the microcontroller for display in the display device, and wherein the relay driver amplifies any weak output from the microcontroller, the microcontroller incorporating a set-reset logic to the relay unit for corresponding ON/OFF the street lighting system.

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