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(54) Title of the invention : Smart sensor-equipped street lamps to monitor and detect the climatic conditions and environmental pollution parameters.

<p>(51) International classification :F21W0131103000, H04W0084120000, G08B0021120000, A61M0016100000, A01N0059000000</p> <p>(86) International Application No :PCT// Filing Date :01/01/1900</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : <b>1)Dr Korla Swapnavahini</b> Address of Applicant :Assistant Professor Department of Biotechnology Dr B.R. Ambedkar University, Srikakulam Etcherla - 532410 -----</p> <p><b>2)V.Krishna Naik</b> <b>3)Dr Manisha</b> <b>4)Dr. Pandurang Yashwant Patil</b> <b>5)Dr. D. Jayarajan</b> <b>6)Dr. Pallavi N</b> <b>7)Dr Bir Abhimanyu Kumar</b> <b>8)Dr K.Sandhyarani</b> <b>9)Dr. K. Mahalakshmi</b> <b>10)Dr. Ishan Y Pandya</b> <b>11)Dr Droupti Yadav</b> <b>12)Dr.Manju.J</b> <b>13)Dr Aruna Kumari Nakkella</b></p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : <b>1)Dr Korla Swapnavahini</b> Address of Applicant :Assistant Professor Department of Biotechnology Dr B.R. Ambedkar University, Srikakulam Etcherla - 532410 -----</p> <p><b>2)V.Krishna Naik</b> Address of Applicant :Research Scholar Acharya Nagarjuna University, Guntur, A.P.522510. -----</p> <p><b>3)Dr Manisha</b> Address of Applicant :Associate Professor and Head of Botany Department, Chinmaya Degree College, BHEL, Haridwar. College is affiliated to Hemwati Nandan Bahuguna Garhwal University, Srinagar, Garhwal, Uttarakhand -----</p> <p><b>4)Dr. Pandurang Yashwant Patil</b> Address of Applicant :Department of Environmental Science, Ratnagiri Sub-Campus, University of Mumbai. P-61 M.L.D.C Mirjole, Ratnagiri. Maharashtra (India) Pin - 415 639 -----</p> <p><b>5)Dr. D. Jayarajan</b> Address of Applicant :M.Sc (MLT) M. Sc (Microbiology)M. Phil, PhD (Microbiology) Head, Dept of Medical Lab Technology, Divine Mother College,Korkadu, Puducherry- 605110 -----</p> <p><b>6)Dr. Pallavi N</b> Address of Applicant :Assistant Professor Department of Environmental Science School of Life Sciences JSS Academy of Higher Education &amp; Research Mysuru - 570015 -----</p> <p><b>7)Dr Bir Abhimanyu Kumar</b> Address of Applicant :Deputy Director, Students Registration Division, IGNOU, New Delhi -----</p> <p><b>8)Dr K.Sandhyarani</b> Address of Applicant :Associate professor, Basic Sciences and Humanities Avanthi institute of engineering and technology Visakhapatnam -----</p> <p><b>9)Dr. K. Mahalakshmi</b> Address of Applicant :Asst. Professor PG &amp; Research Department Of Biochemistry, Bhaktavatsalam Memorial College for Women, Korattur, Chennai- 600080 Tamil Nadu -----</p> <p><b>10)Dr. Ishan Y Pandya</b> Address of Applicant :PhD, Ex. Fellow Gujarat Ecological Education and Research (GEER) Foundation. Gandhinagar, Gujarat India. Pincode 382007 -----</p> <p><b>11)Dr Droupti Yadav</b> Address of Applicant :Assistant Professor &amp; Coordinator, Environmental Science &amp; Technology, SLSBT, CSJM University, Kanpur Nagar, Uttar Pradesh, India Pin: 208024 -----</p> <p><b>12)Dr.Manju.J</b> Address of Applicant :Associate Professor Department Of Oral Medicine And Radiology Thai Moogambigai Dental College And Hospital, Dr.MGR Educational And Research Institute, Chennai, Tamil Nadu -----</p> <p><b>13)Dr Aruna Kumari Nakkella</b> Address of Applicant :Assistant Professor College of Engineering Dr BR Ambedkar University Srikakulam Andhra Pradesh -----</p>
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## (57) Abstract :

This invention describes a smart street lamp designed with a smart Internet of things-based communication module to communicate the obtained analysis about the level of pollution, visibility, and probability of change in climatic conditions with outer street lamps such that the people can be notified about what to expect ahead. The street lamps have been equipped with modules to detect the type and intensity of pollution in addition to identifying the probability of toxicity to raise alarms. The level of this type of analysis can be helpful to reduce the inhalation of unwanted polluted gases. Further, it has a mechanism to reduce pollution or to improve the visibility using the suction mechanism designed in addition to with the module comprising the mechanism to absorb carbon dioxide to release oxygen.

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