

(54) Title of the invention : IOT BASED RESEARCH ON RENEWABLE ENERGY SCHEMES, SMART GRID, CATALYSIS, AND ENERGY STORAGE

<p>(51) International classification :H02J0003380000, G06Q0050060000, H02J0003320000, H02J0003000000, G01W0001100000</p> <p>(86) International Application No :NA Filing Date :NA</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 : 1)Mr. RAJNEESH SHARMA Address of Applicant :ASSISTANT PROFESSOR DEPARTMENT OF CIVIL ENGINEERING GOVERNMENT ENGINEERING COLLEGE JHALAWAR VILLAGE-CHANDLAI, SUNEL ROAD, TEHSIL-JHALRAPATAN, DISTT.-JHALAWAR, RAJASTHAN-326023 -----</p> <p>2)Dr. AMIT KUMAR SHARMA 3)Mr. SAMRAT CHAKRABORTY 4)Dr. MOTI LAL RINAWA 5)Mr. ANURAG JOSHI 6)Dr. MADHURIMA SRIVASTAVA 7)Mrs. R. UMAPRIYA 8)Dr. R. SURESH 9)Dr. S.RAMESH 10)Ms. D.KALYANI Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)Mr. RAJNEESH SHARMA Address of Applicant :ASSISTANT PROFESSOR DEPARTMENT OF CIVIL ENGINEERING GOVERNMENT ENGINEERING COLLEGE JHALAWAR VILLAGE-CHANDLAI, SUNEL ROAD, TEHSIL-JHALRAPATAN, DISTT.-JHALAWAR, RAJASTHAN-326023 -----</p> <p>2)Dr. AMIT KUMAR SHARMA Address of Applicant :ASSOCIATE PROFESSOR, DEPARTMENT OF PHYSICS D.A.V. (PG) COLLEGE, DEHRADUN DAV COLLEGE RD, KARANPUR, DEHRADUN, UTTARAKHAND 248001 -----</p> <p>3)Mr. SAMRAT CHAKRABORTY Address of Applicant :RESEARCH SCHOLAR, DEPARTMENT OF ELECTRICAL ENGINEERING, NATIONAL INSTITUTE OF TECHNOLOGY ARUNACHAL PRADESH, DOIMUKH ROAD, YUPIA, NIRJULL, JOTE, ITANAGAR,ARUNACHAL PRADESH 791113 -----</p> <p>4)Dr. MOTI LAL RINAWA Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF MECHANICAL ENGINEERING, GOVERNMENT ENGINEERING COLLEGE JHALAWAR VILLAGE-CHANDLAI, SUNEL ROAD, TEHSIL -JHALRAPATAN, DISTT.-JHALAWAR, RAJASTHAN-326023 -----</p> <p>5)Mr. ANURAG JOSHI Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF MECHANICAL ENGINEERING MANIPAL UNIVERSITY JAIPUR, DEHMI KALA, JAIPUR AJMER EXPRESS WAY, JAIPUR, RAJASTHAN 303007, INDIA. -----</p> <p>6)Dr. MADHURIMA SRIVASTAVA Address of Applicant :ASSISTANT PROFESSOR & HEAD IN-CHARGE DEPARTMENT OF ENGLISH & FOREIGN LANGUAGES SRM INSTITUTE OF SCIENCE & TECHNOLOGY SRMIST, DELHI-NCR CAMPUS, MODINAGAR, GHAZIABAD, UTTAR PRADESH- 201204. -----</p> <p>7)Mrs. R. UMAPRIYA Address of Applicant :ASSOCIATE PROFESSOR, DEPARTMENT OF CHEMICAL ENGINEERING ERODE SENGUNTHAR ENGINEERING COLLEGE, ERODE - PERUNDURAI RD, POST, THUDUPPATHI, TAMIL NADU 638057 -----</p> <p>8)Dr. R. SURESH Address of Applicant :ASSOCIATE PROFESSOR, DEPARTMENT OF MECHANICAL ENGINEERING, ANNAMALAI UNIVERSITY, ANNAMALAINAGAR , CHIDAMBARAM,- 608002, TAMIL NADU,INDIA -----</p> <p>9)Dr. S.RAMESH Address of Applicant :HOD & ASSISTANT PROFESSOR (SR.GRADE), St. MOTHER THERESA ENGINEERING COLLEGE, VAGAIKULAM, MUDIVAITHANENTHAL POST, THOOTHUKUDI DIST. - 628102 TAMIL NADU, INDIA. -----</p> <p>10)Ms. D.KALYANI Address of Applicant :ASSISTANT PROFESSOR (A), DEPARTMENTOF ELECTRICAL AND ELECTRONICS ENGINEERING JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, ANANTAPUR COLLEGE OF ENGINEERING, ANANTHAPURAMU-515002, ANDHRA PRADESH, INDIA. -----</p>
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(57) Abstract :

Smart grid designing is the key for a gainful utilization of broad energy assets; it is a modernized electrical network that utilizes simple or computerized data and correspondences innovation. Sustainable power itself a push space of exploration because of its accessibility, materialness and ecological amicable nature and the use of perceptive network in sustainable power makes it immense and seriously encouraging. This combination empowers the productive utilization of sustainable power sources, which is quite difficult until further notice. The test sought after side energy the executive's lays center around the productive use of inexhaustible sources without restricting the power utilization. To manage the above issue, it looks for plan and advancement of a keen framework with day-ahead arranging and exact estimating of energy availability. In this work, an Intelligent Smart Energy Management Systems (ISEMS) is proposed to deal with energy interest in a brilliant network climate with profound infiltration of renewables. The proposed plot looks at a few forecast models for exact estimating of energy with hourly and day ahead arranging. PSO based SVM relapse model beats more than a few other expectation models as far as execution precision. At last, in light of the anticipated information, the showing of ISEMS exploratory set-up is done and assessed with various setups considering client solace and need highlights. Additionally, incorporation of the IoT climate was produced for checking at the client end.