

(54) Title of the invention : Implementation of Machine Learning (ML) based Approaches for Predictive Analysis of Biodiversity Dynamics in IOT Based Environmental Monitoring Systems

<p>(51) International classification :G06N002000000, G01D0021020000, G08B0031000000, G06Q0040080000, G01N0033000000</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.V.Shankar</b>  Address of Applicant :Professor, Dept. of Computer Science and Engineering (Networks), Kakatiya Institute of Technology and Science, Warangal -----  <b>2)Dr.Kafila</b>  <b>3)S.Asha</b>  <b>4)Koteswara Reddy G</b>  <b>5)Dr. E. Gopi</b>  <b>6)Dr. Rajesh B. Survase</b>  <b>7)Dr.R.Bharathi</b>  <b>8)Aaftab Alam</b>  Name of Applicant : NA  Address of Applicant : NA  (72)Name of Inventor :  <b>1)Dr.V.Shankar</b>  Address of Applicant :Professor, Dept. of Computer Science and Engineering (Networks), Kakatiya Institute of Technology and Science, Warangal -----  <b>2)Dr.Kafila</b>  Address of Applicant :Assistant Professor, School of Business, S R University, Warangal -----  <b>3)S.Asha</b>  Address of Applicant :Assistant Professor / ECE, Periyar Maniammai Institute of Science and Technology, PMIST, Vallam, Thanjavur -----  <b>4)Koteswara Reddy G</b>  Address of Applicant :Assistant Professor, Department of Biotechnology, Koneru Lakshmaiah Education Foundation, Vaddeswaram, Guntur -----  <b>5)Dr. E. Gopi</b>  Address of Applicant :Associate Professor / MBA, Jeppiaar Engineering College, OMR, Semencherry, Chennai -----  <b>6)Dr. Rajesh B. Survase</b>  Address of Applicant :Asst. Professor, Department of Earth Science /Geography, E. S. Divekar College, Varvand, Tal. Daund, Pune -----  <b>7)Dr.R.Bharathi</b>  Address of Applicant :Assistance Professor, Department of Information Technology, M.Kumarasamy College of Engineering, Thalavapalayam, Karur- 639113 -----  <b>8)Aaftab Alam</b>  Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Integral University, Lucknow -----</p>
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(57) Abstract :

This invention presents a system and method for predictive analysis of biodiversity dynamics in IoT-based environmental monitoring systems. The system comprises a network of environmental sensors collecting real-time data on environmental parameters, a data processing unit for storing and analyzing the data, and a machine learning module that utilizes ML algorithms to extract patterns and predict biodiversity changes. By integrating IoT technology with advanced ML techniques, this invention offers a scalable and efficient approach for monitoring and analyzing biodiversity. The method involves collecting data, processing it through ML algorithms, and utilizing historical data for predicting future biodiversity dynamics. This invention contributes to evidence-based conservation strategies and sustainable ecosystem management.

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