

(54) Title of the invention : INTELLIGENT EDGE COMPUTING SYSTEM FOR DYNAMIC DECISION MAKING IN IOT-ENABLED ENVIRONMENTS

(51) International classification	:G06N002000000, G06N005040000, G16H0050200000, H04L0067100000, G06Q0050020000	(71) Name of Applicant : 1)Ms. Shaheda Niaz Ahmed Ansari Address of Applicant :Assistant Professor, A.K.I's Poona College of Arts, Science & Commerce, Camp, Pune, Pin: 411001, Maharashtra, India. ----- 2)Dr. R. Siva Ram Prasad 3)Dr. P. Mohan 4)Dr. M. Pala Prasad Reddy 5)Mr. Soumen Sen 6)Mereti S V M S Vyshnavi 7)Dr. K. Thiagarajan 8)Dr. B. Angelin 9)Mr. K. Kannan 10)Dr. Belsam Jeba Ananth. M 11)Dr. Harikumar Pallathadka Name of Applicant : NA Address of Applicant : NA
(86) International Application No	:NA	(72) Name of Inventor : 1)Ms. Shaheda Niaz Ahmed Ansari Address of Applicant :Assistant Professor, A.K.I's Poona College of Arts, Science & Commerce, Camp, Pune, Pin: 411001, Maharashtra, India. ----- 2)Dr. R. Siva Ram Prasad Address of Applicant :Professor, Acharya Nagarjuna University, Guntur, Pin: 522510, Andhra Pradesh, India. ----- 3)Dr. P. Mohan Address of Applicant :Principal, Vijaya Institute of Management, Khammam, Pin: 507305, Telangana, India. - 4)Dr. M. Pala Prasad Reddy Address of Applicant :Associate Professor, Department of Electrical and Electronics Engineering, Institute of Aeronautical Engineering, Dundigal, Hyderabad, Pin: 500043, Telangana, India. ----- 5)Mr. Soumen Sen Address of Applicant :Assistant Professor, Department of ECE, Asansol Engineering College, Asansol, Pin: 713305, West Bengal, India. ----- 6)Mereti S V M S Vyshnavi Address of Applicant :Assistant Professor on Contract, UCEK JNTUK, Kakinada, Pin: 533003, Andhra Pradesh, India. ----- 7)Dr. K. Thiagarajan Address of Applicant :Assistant Professor, Periyar Maniammai Institute of Science & Technology, (Deemed to be University), Vallam, Thanjavur, Pin: 613403, Tamil Nadu, India. ----- 8)Dr. B. Angelin Address of Applicant :Assistant Professor, Department of Information Technology, Dr. SNS Rajalakshmi College of Arts and Science, Coimbatore, Pin: 641049, Tamilnadu, India. ----- 9)Mr. K. Kannan Address of Applicant :Assistant Professor, Department of Computer Technology, Dr. SNS Rajalakshmi College of Arts and Science, Coimbatore, Pin: 641049, Tamilnadu, India. ----- 10)Dr. Belsam Jeba Ananth. M Address of Applicant :Associate Professor, Department of Mechatronics Engineering, SRM Institute of Science and Technology, Kattankulathur, Chengalpattu, Pin: 603203, Tamil Nadu, India. ----- 11)Dr. Harikumar Pallathadka Address of Applicant :Director and Professor, Manipur International University, Ghari, Imphal, Imphal West, Pin: 795140, Manipur, India. -----
(87) International Publication No	:NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The invention relates to a system and method for decision-making in IoT-enabled environments by deploying advanced processing capabilities and machine learning algorithms at the network periphery. This distributed architecture empowers edge devices to autonomously analyze incoming data streams, extract actionable insights, and make informed decisions in real-time, thereby overcoming the limitations of traditional cloud-centric approaches. With its ability to minimize latency, conserve bandwidth, and enhance scalability, the system facilitates dynamic decision-making across diverse IoT applications, including smart cities, industrial automation, healthcare, transportation, and agriculture. By seamlessly integrating edge computing capabilities into existing IoT ecosystems, the invention lays the groundwork for a new era of intelligent, autonomous, and resilient IoT solutions capable of meeting the evolving demands of today's interconnected world.

No. of Pages : 17 No. of Claims : 5