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57) Abstract :  
The proposed invention is an AI-driven dynamic firewall management system designed to enhance network security by continuously analyzing network traffic in real-time and automatically adjusting firewall rules. By using machine learning algorithms, the system can detect both known and unknown threats, adjusting firewall configurations to block malicious activity while ensuring legitimate traffic is not disrupted. The system integrates seamlessly with other security tools such as intrusion detection and prevention systems to provide a comprehensive security solution. The dynamic nature of the system allows it to scale and adapt to various network sizes and complexities without manual intervention, making it suitable for businesses of all sizes. With its ability to generate detailed security reports and offer real-time monitoring, the system provides an effective, automated, and efficient approach to network defense, ensuring optimal protection against evolving cyber threats. Its cloud-based infrastructure further enhances flexibility and accessibility, supporting distributed network environments.

No. of Pages : 19 No. of Claims : 10



*G. Kalimuthu*

PRINCIPAL  
DHARMAMURTHI RAO BAHADUR CALAVALA  
CUNNAN CHETTY'S HINDU COLLEGE,  
DHARMAMURTHI NAGAR, PATTABIRAM,  
CHENNAI - 600 072.

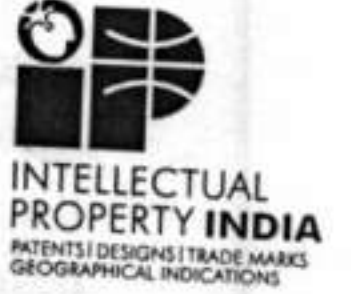
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2	E-12/3999/2025/CHE	202541016711	2500	11063	FORM 9	---

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N-0001610160	Online Bank Transfer	2502250092451	4100.00	1475001020000001

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**FORM- 5**  
**THE PATENTS ACT, 1970**  
**(39 of 1970)**  
**&**  
**The Patents Rules, 2003**  
**DECLARATION AS TO INVENTORSHIP**  
**[See Section 10(6) and Rule 13(6)]**

**1. NAME OF THE APPLICANT(S)**

I/We, Dr. B. Guruprakash et. al., all are citizen of India, Address of one of the Applicant: Associate Professor, Department of CSE, Sethu Institute of Technology, Kariapatti, Virudhunagar, Tamil Nadu – 626115, India.

hereby declare that the true and first inventor(s) of the invention disclosed in the complete specification filed in pursuance of my-/ our application numbered \_\_\_\_\_ dated 25-02-2025 is/are

**2. INVENTOR(S)**

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~~3. DECLARATION TO BE GIVEN WHEN THE APPLICATION IN INDIA IS FILED BY THE APPLICANT(S) IN THE CONVENTION COUNTRY:—~~

N.A.

~~We the applicant(s) in the convention country hereby declare that our right to apply for a patent in India is by way of assignment from the true and first inventor(s).~~

Dated this 25<sup>th</sup> day of February 2025

Dr. B. Guruprakash et. al.  
**Applicant(s)**

To,  
The Controller of Patents  
The Patent Office, Chennai