*A Project Report on*

**AWS Cloud and Network Security**

*Submitted in partial fulfillment of the requirements for the award of the degree of*

**BACHELOR OF TECHNOLOGY**

**IN**

**ELECTRONICS & COMMUNICATION ENGINEERING**

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**ADITYA ENGINEERING COLLEGE**

**An Autonomous Institution**

**(Approved by AICTE, New Delhi & Affiliated to JNTU, Kakinada)**

**ADITYA NAGAR, ADB ROAD, SURAMPALEM**

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**CERTIFICATE**

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**ABSTRACT**

AWS Cloud is used to handle thousands of requests (traffic load) on a web portal when millions of users want to access the same webpage. When the user hits on a certain URL and if the requests are more on that URL the traffic load will be more. There will be lagging of the site and can’t be accessed by all the users at a time, to avoid this problem we are going to change the existing policies in AWS Cloud, and create virtual instance servers by using AWS.

This is to maintain auto-scaling and load balancing on a certain web portal. In Load Balancers, Elastic Load Balancing automatically distributes your incoming traffic across multiple targets, such as EC2 instances. Auto-scaling monitors your applications and automatically adjusts capacity to maintain steady and better performance at the lowest cost. Monitoring the atmosphere information of the area, In that temperature, humidity, raining status of the details. These are achieved by IoT Technology. Network security consists of the policies and practices to prevent and monitor unauthorized access, misuse, modification, or denial of a computer network and network-accessible resources.

Network security consists of the policies and practices to prevent and monitor unauthorized access, misuse, modification, or denial of a computer network and network-accessible resources. To connect different branches with security, we are implementing SITE TO SITE VPN. To overcome the network attacks, we are developing the Intrusion Prevention System. Cisco IOS Intrusion Prevention System (IPS) is an inline, these network security infrastructure are implementing in On-premises, not in a cloud.

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**Nomenclature**

CCD Charge coupled devices

LCD Liquid crystal display

TIFF Tagged Image file format

BMP Bitmap

EXIF Exchange Image file

GIF Graphics Interchange format

JPEG Joint photo graphic experts group

NSCT Non sub-sampled contourlet transform

CT Contourlet transform

SVD Singular Value Decomposition

NSP Non-subsampled pyramid

NSDFB Non-subsampled directional filter bank

MS Multispectral

PAN Panchromatic

SWT Stationary wavelet transform

DWT Discrete wavelet transform

ROLP Ratio of low pass pyramid

DCT Discrete cosine transform

PSNR Peak signal to noise ratio

SSIM Structural Similarity Index

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