**MINI PROJECT REPORT ON**

**DISTRIBUTED ANALYTICS IN FOG COMPUTING PLATFORMS USING TENSORFLOW AND KUBERENETES**

Submitted in partial fulfillment of the requirements for

the award of the degree of

**BACHELOR OF TECHNOLOGY**

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(A University established under section 3 of the UGC Act, 1956)

Tirumalaisamudram

Thanjavur - 613401

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**SHANMUGHA**

**ARTS, SCIENCE, TECHNOLOGY & RESEARCH ACADEMY**

**(SASTRA DEEMED TO BE UNIVERSITY)**

**(A University Established under section 3 of the UGC Act, 1956)**

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**BONAFIDE CERTIFICATE**

Certified that this project work entitled “**DISTRIBUTED ANALYTICS IN FOG COMPUTING PLATFORMS USING TENSORFLOW AND KUBERNETES**” submitted to the Shanmugha Arts, Science, Technology & Research Academy (SASTRA Deemed to be University), Tirumalaisamudram - 613401 by Chaithanya.B (12005017), Information Technology, Kotipalli Chaitanya V Siva Hanuman (120015054), Information Technology, Sai Venkata Ramana.P (120015082), Information Technology in partial fulfillment of the requirements for the award of the degree of **BACHELOR OF TECHNOLOGY** in their respective programme. This work is an originaland independent work carried out under my guidance, during the period June 2019 - November 2019.

**PROJECT GUIDE**

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Submitted for Project Viva Voce held on\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Examiner -I** **Examiner-II**

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**ABSTRACT**

Existing IoT applications transmit the data to resource-rich data centers for analytics. However, it may congest networks, overload data centers, and increase security vulnerability. In this paper, we implement a platform, which integrates resources from data centers (servers) to end devices (IoT devices). We launch distributed analytics applications among the devices without sending everything to the data centers. We analyze challenges to implement such a platform and carefully adopt popular opensource projects to overcome the challenges. We then conduct comprehensive experiments on the implemented platform. We discuss the (i) the beneﬁts/limitations of distributed analytics, (ii) the importance of decisions on distributing an application across multiple devices, and (iii) the overhead caused by different components in our platform.

**KEY WORDS:** Edge Analytics, Containerization, Docker,Kubernetes.

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