

A

Report on

SEMI-PERSISTENT RRC PROTOCOL FOR MACHINE TYPE COMMUNICATION

A report submitted for the partial fulfillment of the requirements for Mini Project of

BACHELOR OF TECHNOLOGY

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

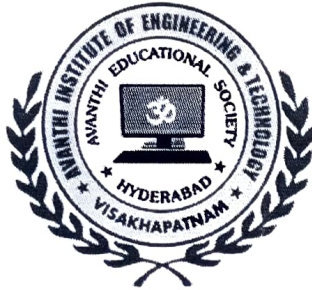
Submitted by

MENDI DENIL (19811A0429)

Under the guidance of

Mr V Raju M.Tech

Assistant Professor



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

TAMARAM, MAKAVARAPALEM, NARSIPATNAM-531113

2021-2022

AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

Tamaram, makavarapalem, narsipatnam road, Visakhapatnam dist-531113

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

MINI PROJECT

(SEMI-PERSISTENT RRC PROTOCOL FOR MACHINE TYPE COMMUNICATION)

BY

NAME: MENDI DENIL

REG NO: 19811A0429



INTERNAL COORDINATORS



EXTERNAL EXAMINER



HOD, ECE

**HEAD OF THE DEPARTMENT
DEPARTMENT OF ECE
Avanthi Institute of Engg.&Tech.
Makavarapalem, Visakhapatnam Dist-53- 113.**

SEMI-PERSISTENT RRC PROTOCOL FOR MACHINE TYPE COMMUNICATION

ABSTRACT

In this project we investigate the design of a radio resource control (RRC) protocol in the framework. Long term evolution(LTE) of that our generation Hu projects regarding provision enabling technology for the emerging paradigm the Internet of Things. Due to nature and envisaged battery operated long-life operation of MTC device without human intervention energy efficiency becomes extremely important. This paper elaborates that state of the art approaches toward addressing in the challenge in relation to low energy consumption operation of MTC devices. And proposes a novel RRC protocol design namely semi-Persistent RRC State transition (SPRST), where the RRC State transition is no longer triggered in coming traffic but depend on the pre-determined parameters based on traffic pattern obtained by exploiting the network memory the proposed RRC protocol can easily co- exist with the RRC protocol in the LTE. The design criterion of SPRST is device and the signaling procedure is investigated according. Based upon the simulation results it is show that the SPRST significantly reduces both the energy consumption and signaling overhead while at the same time guarantee the quality Service requirements.