A
Dissertation
on

CASE STUDY OF MEMRISTANCE BASED CHUA'S CIRCUIT

Submitted in partial fulfilment of the requirement
For the award of Degree of

MASTER OF ENGINEERING
(Control & Instrumentation Engineering)

By
SHRUTI SHARMA
University Roll No. 9028

Under the esteemed guidance of
Mr. Ram Bhagat

Department of Electrical Engineering
Delhi College of Engineering
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CERTIFICATE

This is to certify that major thesis titled "**Case study of Memristance based Chua's circuit**" submitted by, **Ms. Shruti Sharma** in partial fulfillment for the degree of Master of Engineering (CONTROL AND INSTRUMENTATION) of Electrical Engineering Department, **Delhi College of Engineering,** is a bonafide record of work carried out by her under my guidance and supervision.

Mr. RAM BHAGAT
Lecturer
Deptt. of Electrical Engineering
Delhi College of Engineering
Delhi-110042

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Date

Shruti Sharma
(13/C&I/09)
Master of Engineering
Delhi College of Engineering

ABSTRACT

This Project report highlights the V-I characteristics analysis of various implementations of chua diode by plotting the characteristics at different values of breakpoints and slopes. The V-I characteristics are obtained by simulating the different implementations of chua circuit by matlab simulink software.

In the next section, a case study is performed on memristance driven chua's circuit. Some parameters are selected by studying the desired conditions of memrister attractor and then two cases are implemented to obtain the memristor attractors. In First case the attractors pattern obtained confirms the presence of chaos on incorporating amemristor in place of chua diode while the second case gives us the desired attractors that can be used in various applications of secure communications.

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