DAYANANDA SAGAR COLLEGE OF ENGINEERING
Shavige Malleshwara Hills, Kumaraswamy Layout, Bangalore-560078
(An Autonomous Institute affiliated to VTU,
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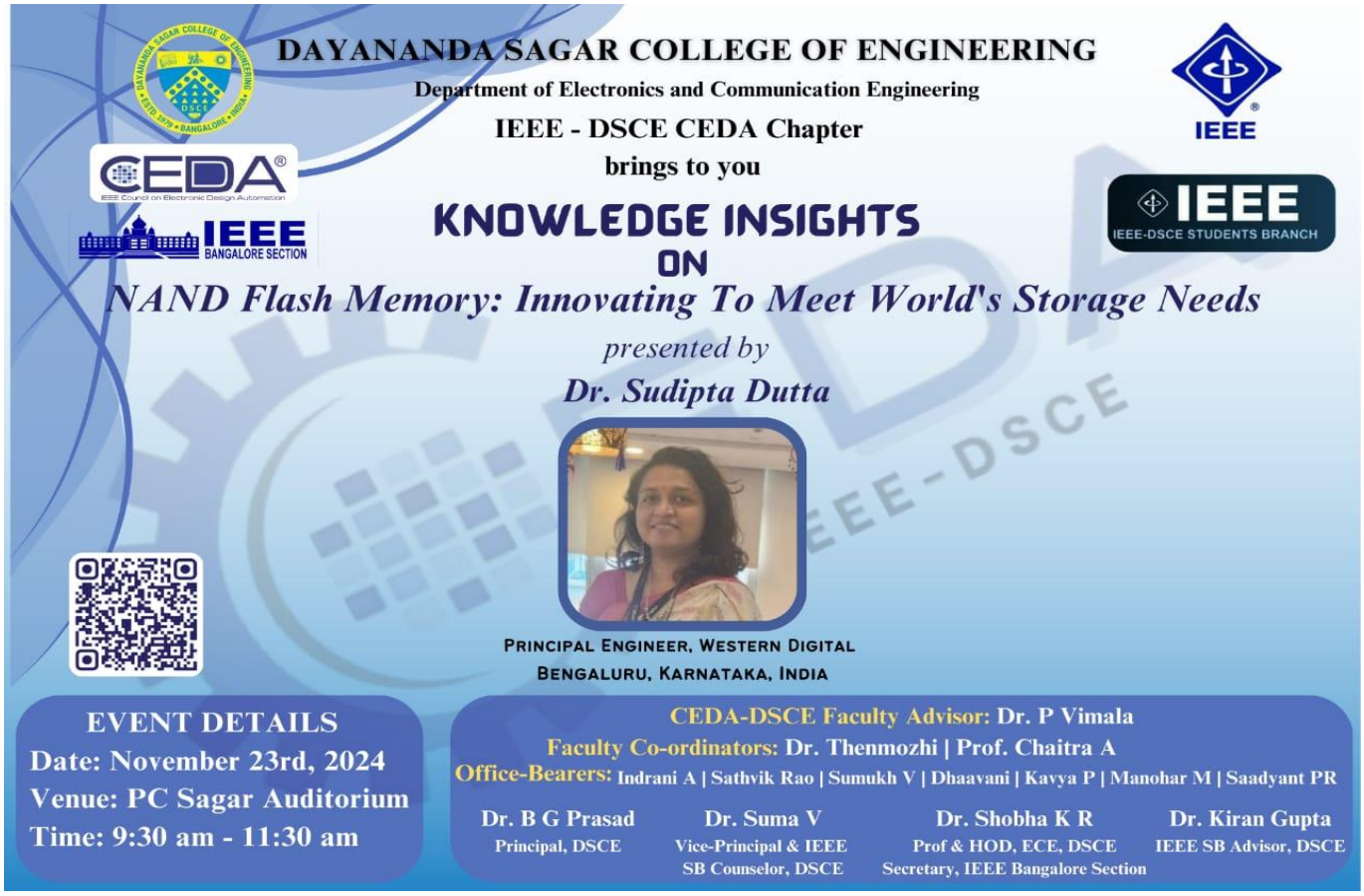
Department of Electronics and Communication Engineering

IEEE-CEDA DSCE CHAPTER

Report

Knowledge Insights on "NAND Flash Memory: Innovating To Meet World's Storage Needs"

Date: 23rd November, 2024



A briefing of the session's agenda was given by the CEDA-DSCE Student Secretary.

Dr. Sudipta Dutta was introduced and welcomed on stage by the CEDA-DSCE Student Webmaster.

The session focuses on how NAND flash memory technology has evolved to address the growing demand for efficient, reliable, and high-capacity digital storage solutions. From 2D to 3D NAND, advancements have significantly increased storage density, speed, and cost efficiency, enabling widespread use in SSDs and smartphones.

Innovations in cell architectures (SLC, MLC, TLC, QLC) balance capacity, performance, and reliability, while addressing challenges like wear-out and power consumption. As data-heavy applications like AI, IoT, and cloud computing expand, NAND continues to evolve with smarter controllers and sustainable practices, ensuring it remains a cornerstone of modern digital storage solutions.

Dr. Dutta also took questions from the audience and had an interactive exchange of words and gave insights on how to work better in industry-based projects. The session started at 10am and was concluded by 11:30 with a student crowd of 207.

A token of appreciation and gratitude was presented by IEEE CEDA-DSCE Student Chair. The session was concluded with a Vote of Thanks from the CEDA-DSCE Faculty, Dr. P Vimala.