B. E–VII Sem- Project Seminar (2024-25)

Department of Electronics and Communication Engineering
Vasavi College of Engineering (Autonomous)
Ibrahim Bagh, Hyderabad - 500031

ABSTRACT

Student 1: 1602-21-735-115 Shivakalyan Gupta
Supervisor: Ramakrishna Reddy
Student 2: 1602-21-735-110 Salma Anjum
Designation: Assistant Professor
Student 3: 1602-21-735-111 Sanjay V

Title of the Project:

Design and Implementation of Low Noise Amplifier Using Cadence Virtuoso

ABSTRACT:

This project belongs to "Analog circuit design and microwave engineering" domain, it focuses on designing a low noise amplifier with the desired noise figure and desired frequency of operation, with necessary input and output impedance matching stages. LNA plays a very crucial role in frontend wireless communication.

Keywords: *gain, noise figure, input and output Impedance, IIP3*

CO-PO/PSO Mapping:

S. No	COs	PO	PSO
1	To select the complex engineering problems beneficial to the society after thorough literature survey	1,2,6	1
2	To identify the modern tools for solving the problems.	2,5	1
3	To analyze and comprehend the experimental results	2,4	
4	To communicate effectively the experimental results with report and presentation following ethics	8,10	
5	To work in teams and adapt for the advanced technological changes	9,12	

Domain : Analog circuit design and microwave engineering
Type of Project : Hardware
Tools required : KiCad, Cadence

References:

1. A Sub-mW, Ultra-Low-Voltage, Wideband Low-Noise Amplifier Design Technique.
2. RF Circuits and Systems : Low Noise Amplifiers Prepared by: Heng Zhang
3. A 180-GHz Low-Noise Amplifier With Recursive Z-Embedding Technique in 40-nm CMOS
4. Ultralow-Power W-Band Low-Noise Amplifier Design in 130-nm SiGe BiCMOS
5. CMOS RF Low-Noise Amplifier Design for Variability and Reliability

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Supervisor

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Student(s)