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& संचार अभियांत्रिकी
विभाग
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Hazratbal, Srinagar Jammu and Kashmir, 190006, INDIA

Recommendation of Project Title

1	Name of Students with Enrollment Numbers	ALOK YADAV (2019BECE033) SHANT RATHOD (2019BECE049)
2	Department	ECE
3	Project Title (Attach abstract)	DESIGN OF CIRCULARLY POLARIZED MICROSTRIP ANTENNA FOR VARIOUS WIRELESS APPLICATIONS
4	Broad Area of Project	ANTENNA DESIGN

Signature of Project Supervisor: Amit Kumar 27/10/2022

Name of Project Supervisor: Dr AMIT KUMAR

Title of the Project: *Design of Circularly Polarized Microstrip Antenna for Various Wireless applications*

Abstract:- We wish to design circularly polarized microstrip antenna for various wireless applications like GSM band, ISM band, Wi-Fi, WLAN, WiMAX, LTE Bands, 4G/5G and satellite communications. These antennas are very useful for devices like Mobile (cell phones), Palmtop, Laptops, and many more. A circularly polarized antenna prevents the device from dropout of the signal coming from any direction because of having equal distribution of E-field in the E- and H-plane. The axial ratio (Ex/Ey in dB) required is less than 3 dB for operational purposes. We will be using substrates like FR-4, Rogers, and RT-Duriod for designing the microstrip antenna.

Methodology:-

1. First, design the required microstrip antenna using the CST simulation software.
2. Axial-ratio bandwidth calculation needs to be validated through simulation.
3. Then fabrication will be carried out using PCBMATE/LPKF PCB design tool/machine using the DXF/Gerber file.
4. Then the S-parameter measurement will be carried out using the Vectored Network Analyzer (VNA) after soldering the required SMA connector to the antenna.
5. Radiation-pattern (E & H-Plane) measurement will be done using the anechoic chamber.
6. We will finally validate our simulated results with the measured ones.
7. If possible we will go for real-time applications.

S.No	Name of the Student	Enrollment No.	Signature
1.	ALOK YADAV	2019BECE033	
2.	SHANT RATHOD	2019BECE049	

Amit Kumar 27/10/2022

(Dr. Amit Kumar)

Name and Signature of the Project Supervisor