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| **Author(s) Name:** | Prince Mahmud Ridoy, Khan Md. Elme, Rezauddin Shihab, Pranta Saha, Md. Jawad-Al-Mursalin, Nowshin Alam | | |
| **Contact Email(s):** | nowshin.alam@aiub.edu | | |
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| **Abstract:** |  |
| In this paper, a microstrip patch antenna for 5.4 GHz band has been designed using Computer Simulation Technology (CST) Microwave studio, choosing copper for constructing patch and ground plane, Flame Retardant 4 (FR-4) material for substrate and microstrip line for feeding. The small sized simple design offers high directivity as evident from a main lobe magnitude of 6.16 dBi and an impressive −53.189 dB S11 value at center resonant frequency of 5.38 GHz. Additionally, the efficiency is calculated to be 41.938% and the bandwidth an adequate value of 200.6 MHz. The Voltage Standing Wave Ratio (VSWR) value of 1.0044 indicates almost no mismatch between antenna and feedline. These simulated results confirm that the proposed antenna performs admirably despite the simple design and can be used for wireless local area network (WLAN) applications. | |