operation control. To execute this, a software-based on-chip software command control circuit can be integrated into the antenna PCB to control the antenna operation as per the system requirements while carefully preserving the antenna radiation characteristics and without increasing the weight and volume of the antenna.

4) This research work can be further explored in designing the phased array antennas where the traditional antennas can be replaced with reconfigurable antennas to design the multifunctional phased array antennas.

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Author's Relevant Publications

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1. **Akanksha Singh**, Rahul Dubey, Rajkumar Jatav and Manoj Kumar Meshram, "Electronically reconfigurable microstrip antenna with steerable beams," **AEU - International Journal of Electronics and Communications**, vol. 149, May 2022.

2. **Akanksha Singh**, Rahul Dubey, Ajitesh, Saurabh Kumar Srivastava and Manoj Kumar Meshram, "Circular polarization-agile and beam switching enabled reconfigurable cavity-backed antenna," **AEU - International Journal of Electronics and Communications**, Vol. 165, June 2023.

3. **Akanksha Singh** and Manoj Kumar Meshram, "A Multifunctional Stacked Array Antenna with 2-D Beam Switching and Quad-Polarization Agility for 5G Sub-6 GHz Application," **IEEE Transactions on Antennas and Propagation,** [Communicated].

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1. **Akanksha Singh** and Manoj Kumar Meshram, "An Ultra-Wideband Circular Ring Monopole Antenna with Reconfigurable Patterns," **IEEE Indian Conference on Antennas and Propagation (InCAP)**, Ahmedabad, India, 2019, pp. 1-5.

2. **Akanksha Singh**, Rajkumar Jatav, Ajitesh and Manoj Kumar Meshram, "Beam Steering Antenna Array based on Reconfigurable Feeding Network," **IEEE Microwaves, Antennas, and Propagation Conference (MAPCON)**, Bangalore, India, 2022, pp. 424-428.