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Mobile Network Users Amidst Ultra-Dense Networks in 5G Using an Improved Coordinated Multipoint (CoMP) Technology

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Abstract : In this 5G network, very high traffic density in densely populated areas, most especially in densely populated areas, is one of the key requirements. Radiation reduction becomes one of the major concerns to secure the future life of mobile network users in ultra-dense network areas using an improved coordinated multipoint technology. Coordinated Multi-Point (CoMP) is based on transmission and/or reception at multiple separated points with improved coordination among them to actively manage the interference for the users. Small cells have two major objectives: one, they provide good coverage and/or performance. Network users can maintain a good quality signal network by directly connecting to the cell. Two is using CoMP, which involves the use of multiple base stations (MBS) to cooperate by transmitting and/or receiving at the same time in order to reduce the possibility of electromagnetic radiation increase. Therefore, the influence of the screen guard with rubber condom on the mobile transceivers as one major piece of equipment radiating electromagnetic radiation was investigated by mobile network users amidst ultra-dense networks in 5g. The results were compared with the same mobile transceivers without screen guards and rubber condoms under the same network conditions. The 5 cm distance from the mobile transceivers was measured with the help of a ruler, and the intensity of Radio Frequency (RF) radiation was measured using an RF meter. The results show that the intensity of radiation from various mobile transceivers without screen guides and condoms was higher than the mobile transceivers with screen guides and condoms when call conversation was on at both ends.

Keywords : ultra-dense networks, mobile network users, 5g, coordinated multi-point.
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