| 1. | Title of the course | Wireless Communication Laboratory |
|---|---|---|
| 2. | Course number | EE523P |
| 3. | Structure of credits | 0-0-3-2 |
| 4. | Offered to | PG |
| 5. | New course/modification to | Modification To EE5193/11 |
| 6. | To be offered by | Department of Electrical Engineering |
| 7. | To take effect from | July 2022 |
| 8. | Prerequisite | Nil |
| 9. | **Course Objective(s):** To introduce the principles of wireless communication systems. To design and simulate different signalling/modulation/coding techniques under the additive white Gaussian noise (AWGN) channel with Rayleigh fading. ||
| 10. | **Course Content:** Generation of different probability density functions and probability mass functions; Performance analysis of memoryless modulation schemes in AWGN channel; Performance analysis of memory based modulation schemes in AWGN channel; Design and simulation of channel encoding and decoding under AWGN channel; Performance analysis of advanced communication techniques such as MC-CDMA, MIMO and OFDM. ||
| 11. | **Textbook(s):**<br>1. Tse D and Viswanath P, *Fundamentals of Wireless Communication*, 1st Edition, Cambridge University Press (2005). ||
| 12. | **Reference(s):**<br>1. Goldsmith A, *Wireless Communication*, 1st Edition, Cambridge University Press (2005).<br>2. Madhow U, *Introduction to Communication Systems*, 1st Edition, Cambridge University Press (2014). ||