

<b>SEMESTER</b> <i>Sixth</i>	<b>DEPARTMENT</b> <i>Telecommunications Engineering</i>	<b>COURSE TITLE</b> <i>Antennas Lab.</i>
<b>COURSE CODE</b> <i>ET602</i>	<b>HOURS</b> 3 <b>UNITS</b> 1	<b>COURSE SPECIFICATIONS</b> <i>Practical Content</i>

**1. Familiarization with antenna types, definitions and laboratory equipments.**

**2. Descriptions the physical length and the electrical length of an antenna.**

**3. Plotting radiation patterns, calculating beamwidth, and examining the polarization of different types of antennas:**

- Half-wave dipole.
- Half-wave folded dipole.
- Vertical end-fed antenna (monopole antenna).
- Parasitic array antenna (source, reflector and director).
- Yagi-Uda antenna.
- Slot antenna.

**4. Familiarization with the Antenna Matching, Baluns, and Feeding Arrangements:**

- Matching stubs.
- Balanced and Unbalanced antennas.
- Baluns.

**References:**

- 1. The ARRL (American Radio and Relay league) Antenna Handbook.**
- 2. J.J. Carr, *Practical Antenna Handbook*, McGraw-Hill.**
- 3. W. Stutzman, G. Thiele, *Antenna Theory and Design*, Wiley.**