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Undergraduate Research Program	
Project Name	Radio propagation measurements for UAVs (LAPS) and drones
Campus & Location in Mexico	Querétaro
Faculty	Engineering
Research Area	Telecommunications for Digital Transformation
Research Responsible	Alejandro Aragón Zavala
Description of the Project	Mobile radio coverage is desired in areas where terrestrial cellular or satellite coverage is either not possible or not affordable due to budgetary or terrain constraints. To fill in these coverage gaps also known as not spots one potential solution consists on the use of LAPS (low altitude platform systems), UAVs (unmanned aerial vehicles), drones, or ballons that are flown at reasonably low altitudes above ground. Radio propagation measurements are therefore needed to characterise propagation models and test system performance using various modulation techniques and schemes. The project consists on participating in such measurement campaigns in the design, material selection, measurements and post-processing analysis at different frequencies, mainly in the VHF/UHF bands.
Training Provided	Design of experiments;Elaboration / execution of projects;Teamwork
Modality	Hybrid
Offered During	Semester

Student	
Tasks/Responsibilities	Assisting in the design and conduction of radio propagation measurement campaigns related to the use of UAVs and drones to provide radio coverage in the UHF/VHF bands.
Required Language Proficiency	English (Advanced)
Required Skills and Abilities	Pro-activity, analytical skills, teamwork, leadership.
	1) Being at least in your 2nd year of bachelor 2) Accumulative grade point average (GPA) 2.5

Other Documents Required to APPLY for an Internship

- 3) Official Transcript
- 4) 2 letters of recommendation of faculty members
- 5) Resume
- 6) Letter of intention explaining the reason why you would like to participate in the research program