Communication Systems based on Software Defined Radio (SDR) - Schedule

	Content
1	Unit 1. Presentation and introduction to the course.
2	Unit 1. Review of Digital Signal Processing and Communications Systems
3	Unit 1. Review of Digital Signal Processing and Communications Systems
4	Unit 2. Environments for the use of SDR + Instalation of: SDR, Python and GNU Radio
5	Unit 2. Basic use of GNU Radio (Spectrum analyzer, blocks, data types, sample rates, resamplers, signal generators).
6	Unit 2. Basic use of GNU Radio (Spectrum analyzer, blocks, data types, sample rates, resamplers, signal generators).
7	Unit 3. FM and AM Modulators. Review and implementation.
8	Unit 3. FM and AM Modulators. Review and implementation.
9	Unit 4. Hardware components of SDR communications system
10	Unit 4. Hardware components of SDR communications system
11	Unit 5. Implementation of digital communications systems
12	Unit 5. Implementation of digital communications systems
13	Unit 5. Implementation of digital communications systems
14	Unit 5. Implementation of digital communications systems
15	Unit 5. Implementation of digital communications systems
16	Unit 5. Implementation of digital communications systems
17	Unit 5. Implementation of digital communications systems
18	Unit 6. Study and implementation of communication systems using spread spectrum
19	Unit 6. Study and implementation of OFDM communication systems
20	Unit 6. Study and implementation of communication systems using cognitive radio





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21	Unit 7. Entrepreneurship: Business plan / CANVAS / TRL. Examples
22	Unit 8. Case of Study #1: Study and implementation of naval telemetry systems
23	Unit 8. Case of Study #2: Study and implementation of aeronautical telemetry systems
24	Unit 8. Case of Study #3: Study and implementation in SDR of satellite communications systems
25	Unit 8. Case of Study #4: Study and implementation of monopulse tracking systems
26	Integrative work
27	Integrative work
28	Integrative work
29	Integrative work
30	Integrative work
31	Presentations of integrative works
32	Presentations of integrative works
	End of the course

