

Action plan

Week	Sections	Topic	Activities
Week 1	Part I (Applications of signal processing in digital communication systems)	Topic 1: Applications of Signal Processing	Seminar: “Applications of Signal Processing”
Week 2		Topic 2: Digital Speech Signal Processing	Seminar: “Digital Speech Signal Processing”
Week 3		Topic 3: Digital Image Processing	Lecture: “Digital Image Processing”
Week 4		Topic 4: Digital Communication Systems (transceiver)	Lecture: “Digital Communication Systems (transceiver)”
Week 5		Topic 5: Digital Communication Systems (receiver continue ...)	Lecture: “Digital Communication Systems (transceiver continue ...)”
Week 6	Part II (Applied signal processing and digital Filters)	Topic 6: FIR Filters	Lecture: Design of Finite Impulse Response Filters
Week 7		Topic 7: IIR Filters	Lecture: Design of Infinite Impulse Response Filters
Week 8		Topic 8: Adaptive Filter	Lecture: Adaptive filters and classes
Week 9		Topic 9: Adaptive and Kalman Filter	Lecture: Adaptive filters and classes (cont..) and Kalman Filter Introduction
Week 10		Topic 10: Kalman Filter	Lect: Kalman Filter (cont..)
Week 11	Part III (Applying signal processing in Software Defined Radio)	Topic 11:	Multirate signal processing (1: Downsampling)
Week 12		Topic 12:	Multirate signal processing (2: Upsampling)
Week 13		Topic 13:	RF Front end Design: Bandpass sampling design
Week 14		Topic 14:	Polyphase Channelizer techniques
Week 15		Topic 15:	Polyphase Channelizer techniques

