Digital Communications - HW2

Jacopo Pegoraro, Edoardo Vanin

24/04/2018

Problem

1 Transmitter and Channel

2 Point A

3 Point B

4 Point C

5 Point D

6 Point E

7 Point F

nT_y	h	$\hat{h}_{corr}$	$\hat{h}_{ls}$
0	1.0000	1.0054	0.9991
1	0.9635	0.9247	0.9613
2	0.4641	0.5002	0.5062
3	-0.0001	0.0202	0.0255
4	-0.2155	-0.2549	-0.2253
	Real	Corr	LS
σ_w^2 [dB]	-8	-7.9776	-8.0404

Table 1: Estimated coefficients with the two methods for $N = 5$ and $L = 31$. Here are also reported the values of the estimated noise variance $\hat{\sigma}_w^2$.

References

[1] Nevio Benvenuto, Giovanni Cherubini, *Algorithms for Communication Systems and their Applications*. Wiley, 2002.