• Knjiga Grid Side Converters (Vukosavic):

5.1 Discrete-time controller with center-pulse sampling

Table 5.1: Closed loop performance of the decoupling controller

Gain α_D	VM	$f_{BW}(45^{\circ})$	$f_{BW}(-3 \text{ dB})$	Overshoot
0.20	0.7608	$0.0263/T_{S}$	$0.0497/T_S$	0
0.25	0.7071	$0.0332/T_{S}$	$0.0732/T_S$	0
0.30	0.6547	$0.0374/T_{S}$	$0.1035/T_S$	0.0119
0.35	0.6034	$0.0430/T_{S}$	$0.1341/T_S$	0.0579
0.40	0.5531	$0.0481/T_S$	$0.1603/T_S$	0.12

5.2 Current controller with oversampling-based feedback

Table 5.2: Closed loop performance with W_{CL} of (5.25)

Gain α_D	VM	$f_{BW}(45^{\circ})$	$f_{BW}(-3 \text{ dB})$	Overshoot
0.15	0.7218	$0.0227/T_S$	$0.0434/T_S$	0.0001
0.20	0.6423	$0.0298/T_{S}$	$0.0708/T_{S}$	0.0445
0.25	0.5664	$0.0370/T_S$	$0.0939/T_S$	0.1406
0.30	0.4935	$0.0442/T_S$	$0.1110/T_S$	0.2510
0.35	0.4230	$0.0513/T_S$	$0.1245/T_S$	0.3558
0.4	0.3548	$0.0585/T_S$	$0.1349/T_S$	0.4840

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• Rezultati MATLAB skripte:



