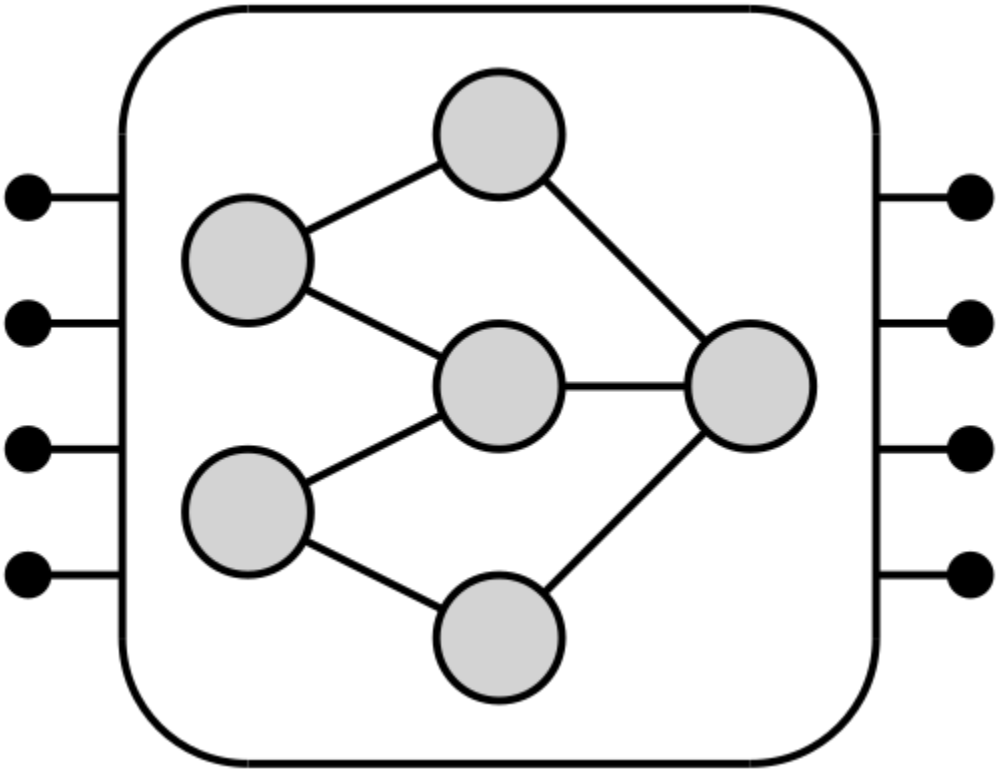
AISAD report



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Specifications

Input Specifications

The asked specifications were:

FOM (dB)	SNDR (dB)	BW (Hz)	Power (W)
170	100	100000	0.01

RNN Resulting Specifications

The inverse-RNN estimated specifications were:

FOM (dB)	SNDR (dB)	BW (Hz)	Power (W)
171.87906239174879	101.725914	100000	0.0096535079999999999

The verified specifications were:

FOM (dB)	SNDR (dB)	BW (Hz)	Power (W)
176.08718071837501	106.09481210728001	100000	0.010017587370000001

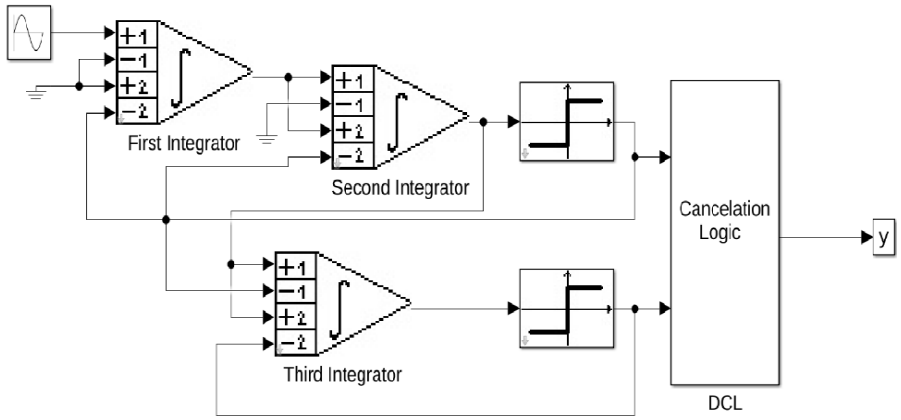
FOM Improving Specifications

The final obtained specifications after the optimization process were:

FOM (dB)	SNDR (dB)	BW (Hz)	Power (W)
177.59725484930601	107.581809964279	100000	0.0099644999999999994

Selected Architecture

The selected architecture by the classifier was:3or21SCSDM



Design Variables

The RNN inferred and optimized design variables were:

Design Variables	RNN DVars	Improved FOM DVars
'OSR'	257.02704	246
'Adc1'	374.46413999999999	363
'gm1'	0.0035051864000000001	0.0036020000000000002
'Io1'	0.003698935	0.003852
'Adc2'	306.31024000000002	315
'gm2'	0.0028680477000000001	0.0028089999999999999
'Io2'	0.0029208122000000001	0.0028189999999999999

Note (units): gm (A/V), Io (A), Vn (V/(Hz**(1/2)))

Fixed Parameters

The fixed parameters for the selected architecture were:

Name	Value
'Ain'	0.5
'Cint1'	2.4000000000000001e-11
'Cint2'	3.0000000000000001e-12
'Cs11'	6.0000000000000003e-12
'Cs12'	1.5000000000000001e-12
'Cs21'	6.0000000000000003e-12
'Cs22'	1.5000000000000001e-12
'N'	65536
'avnl1'	0
'avnl2'	0.14999999999999999
'avnl3'	0
'avnl4'	0
'cload'	2.28e-12
'cnl1'	0
'cnl2'	2.5000000000000001e-05
'cpar1'	5.9999999999999997e-13
'cpar2'	5.9999999999999997e-13
'hys'	0.029999999999999999
'innoise1'	0
'innoise2'	0
'kt'	4.1599999999999992e-21
'osp'	2.7000000000000002
'ron1'	60
'ron2'	650
'temp'	175
'vref'	2

Power Spectral Density Graph