

List of Tables

Table	Title	page
2.1	Effect of varying parameter (η_r) on the image data-set [Weber, 1997]	31
2.2	Effect of varying parameters V_{ar} and Q_{am} on 24 bpp Lena image compressed to 0.5 bpp and at $\eta_r = 0.95$. R_i denotes the regions in the image with rank i	33
2.3	Performance comparison between the proposed method, JPEG Baseline [Wallace, 1992], CBTF-PF [Dhara and Chanda, 2007], CDABS [Douak et al., 2011], GA-DWT [Boucetta and Melkemi, 2012], and dLUT [Messaoudi and Srairi, 2016] algorithms	36
3.1	Benchmark test databases for SCI IQA	47
3.2	Effect of changing the parameter S in order to obtain different bitrate (bpp).	51
4.1	Performance comparison of CSQA with state-of-the-art RR-IQA methods on CCI and SCI datasets.	57
4.2	Performance comparison of CSQA with state-of-the-art FR-IQA methods on CCI and SCI datasets.	58
4.3	Computation cost analysis of proposed CSQA	59
4.4	Benchmark test databases for SCI IQA	69
4.5	Performance analysis by changing the threshold for $D_{extrema}$ to remove low contrast feature points. The last column represents the average improvement in the performance in terms of percentage.	70
4.6	Performance analysis by changing the number of bits needed to represent a descriptor as bits-per-feature. The first column represents the total number of bits used to send the descriptors of one feature. The overhead in the second column is given in bits-per-pixel (bpp). The last column represents the average improvement in the performance in terms of percentage. The value of $D_{extrema}$ is set at 0.06.	71
4.7	Performance comparison between FQI and different RR-IQA methods on the QACS dataset. The top two performances are highlighted.	72
4.8	Performance comparison between FQI and different FR-IQA methods on the QACS dataset. The top two performances are highlighted.	72
4.9	Performance comparison between FQI and different RR-IQA methods on the SIQAD dataset. The top two performances are highlighted.	72
4.10	Performance comparison between FQI and different FR-IQA methods on the SIQAD dataset. The top two performances are highlighted.	73
4.11	Performance comparison of FQI with respect to individual distortion type for SIQAD dataset. The top two performances are highlighted.	75
4.12	Performance comparison of FQI with respect to individual distortion type for QACS dataset. The top two performances are highlighted.	76
4.13	Computation cost analysis of proposed FQI	79

