

List of Tables

Table 1.1 : Typical properties of fiber materials.....	9
Table 1.2 : Typical properties of resin matrix.....	10
Table 1.3 : Comparison between FRC, other HPFRCC, and ECC	14
Table 3.1 : Physical properties of masonry bricks	42
Table 3.2 : Physical properties of Portland Pozzolana Cement (PPC)	43
Table 3.3 : Chemical properties of Portland Pozzolana Cement (PPC)	43
Table 3.4 : Properties of fine aggregates (Sand).....	44
Table 3.5 : Physical properties of mortar specimens	45
Table 3.6 : Experimental results of compressive strength test on masonry prisms	48
Table 3.7 : Experimental results of flexural and shear bond strengths	54
Table 3.8 : Materials properties of super-plasticizer	56
Table 3.9 : Materials properties of polymeric fibers	56
Table 3.10 : Mix proportion of ECC in kg/m ³	57
Table 3.11 : Experimental results of compressive strength and split tensile strength tests	60
Table 3.12 : Experimental results of tensile strength of ECC coupons	63
Table 3.13 : Experimental results of bending test of ECC prism	65
Table 3.14 : Mechanical properties of FRP	69
Table 3.15 : Tensile strength properties of FRP bars	72
Table 3.16 : Properties of SikaDur 330 (Epoxy resin) used for strengthening purpose	73
Table 4.1 : Description of beam specimens	78
Table 4.2 : Experimental results of tested beams	84
Table 4.3 : Experimental results of masonry beams strengthened with ECC sheet	97

Table 5.1 : Experimental results of all the specimens	109
Table 6.1 : Plasticity parameters used for CDP model for masonry and ECC	119
Table 6.2 : Yield stress and corresponding strain values of masonry.....	122
Table 6.3 : Yield stress and corresponding strain values of ECC.....	122
Table 6.4 : Details of beam specimens	124
Table 6.5 : Validation of experimental results with numerical study	127
Table 6.6 : Details of masonry wall specimens	139
Table 6.7 : Validation of experimental results with numerical study	144
Table 6.8 : Results of parametric study of Serial number 7-9	149
Table 6.9 : Results of parametric study of Series number 10-15.....	156