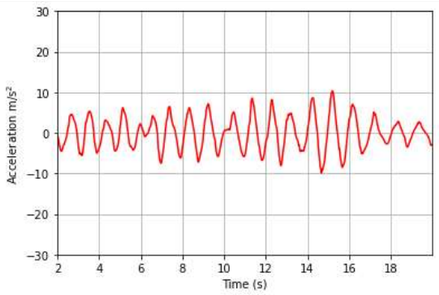
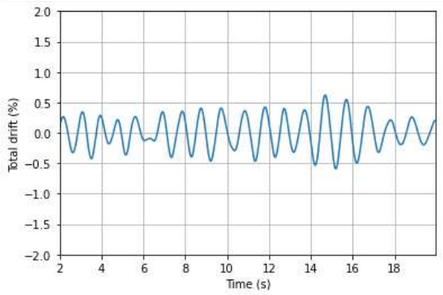
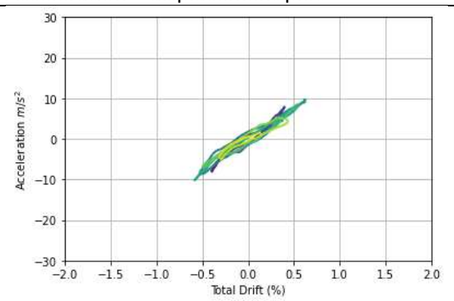
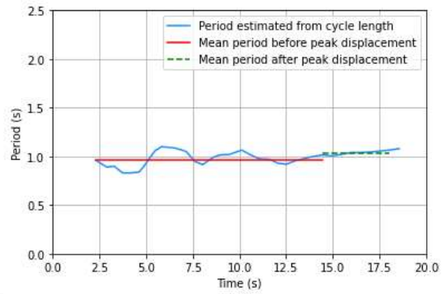
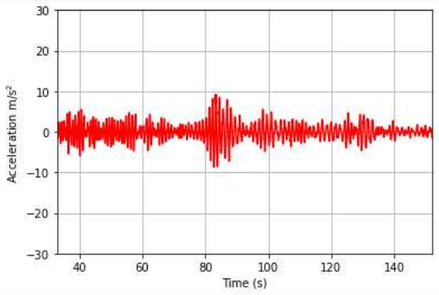
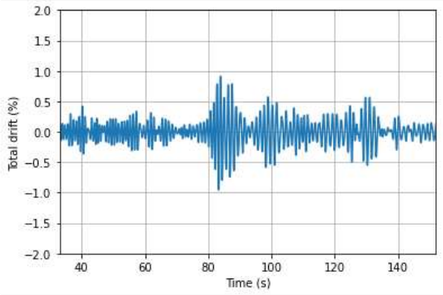
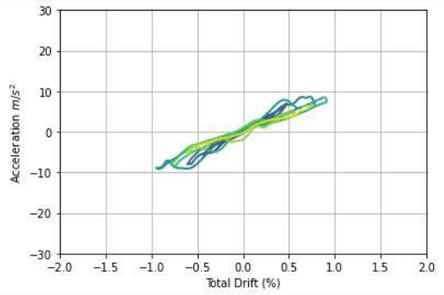
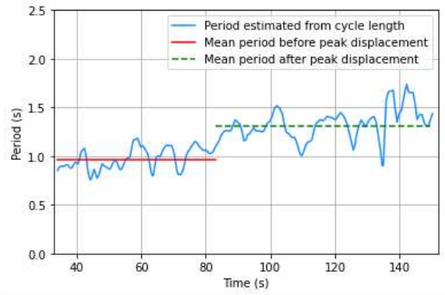
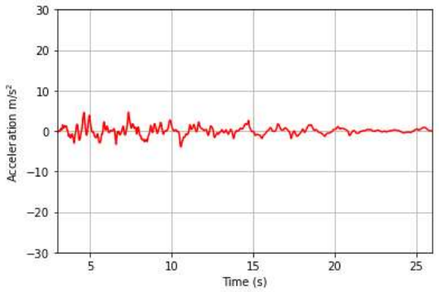
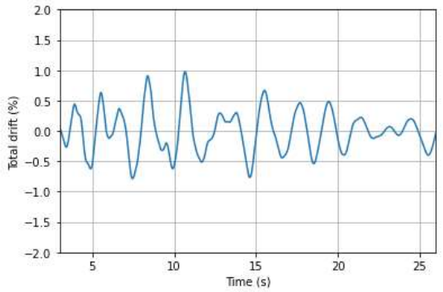
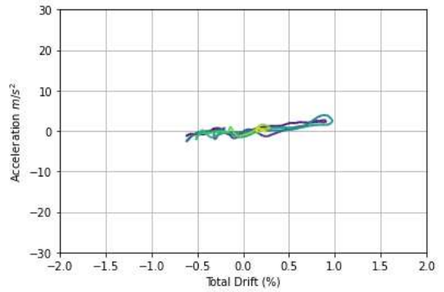
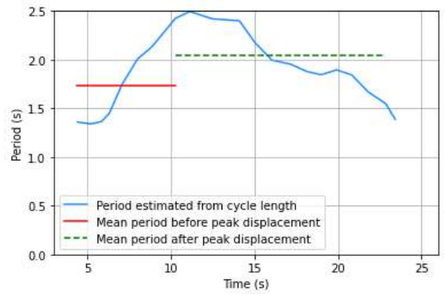
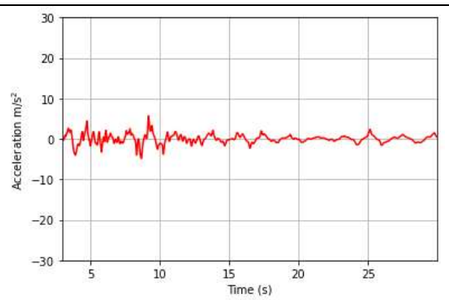
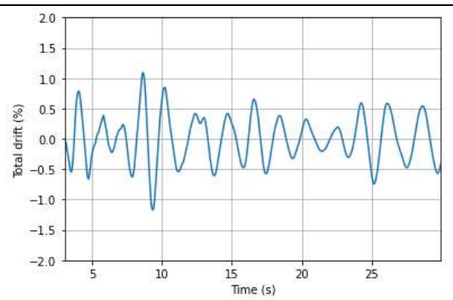
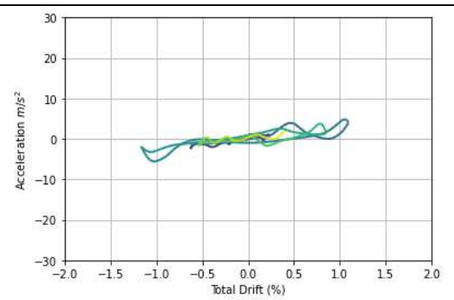
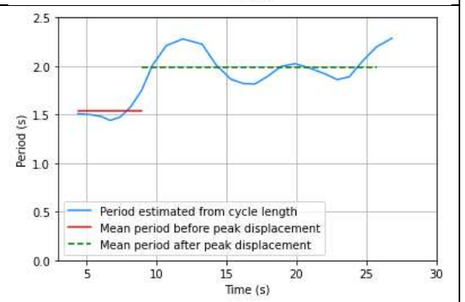
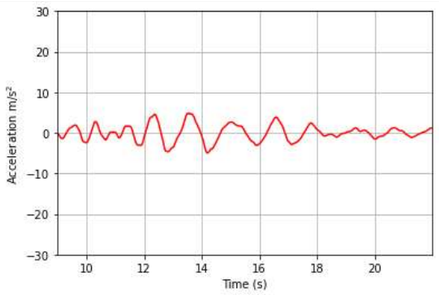
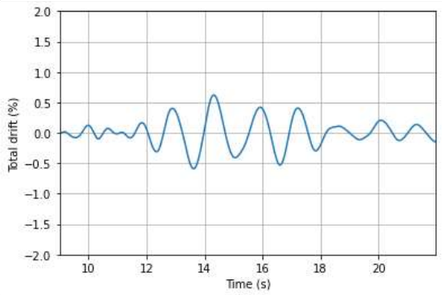
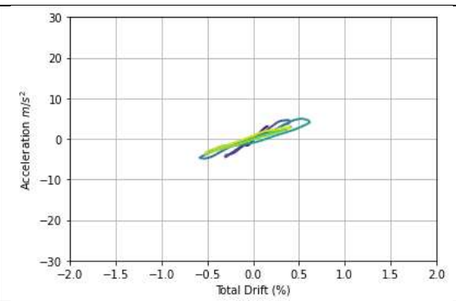
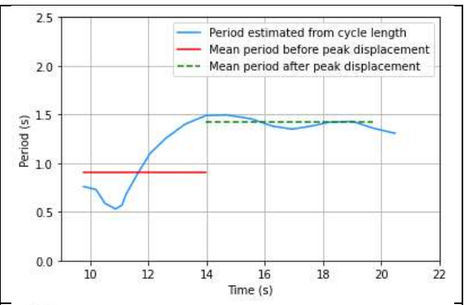
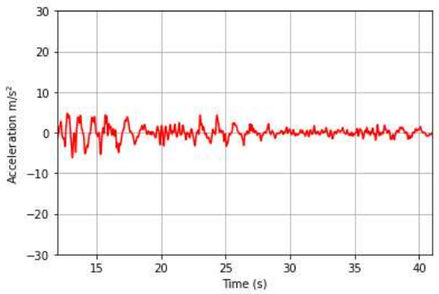
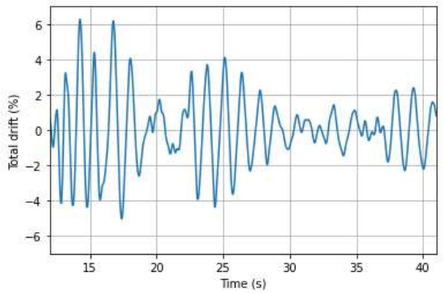
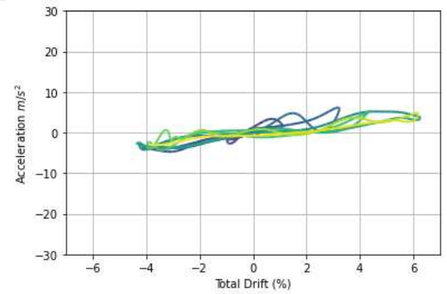
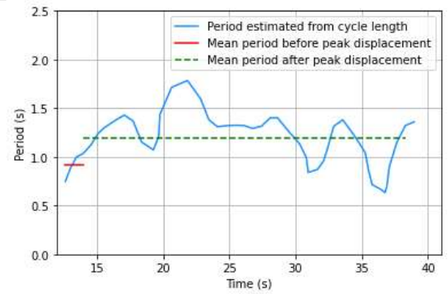
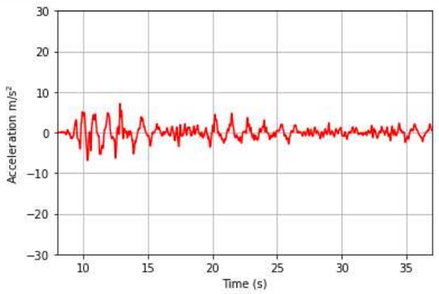
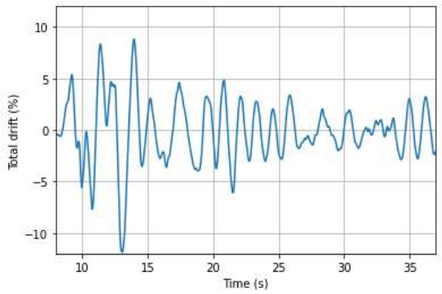
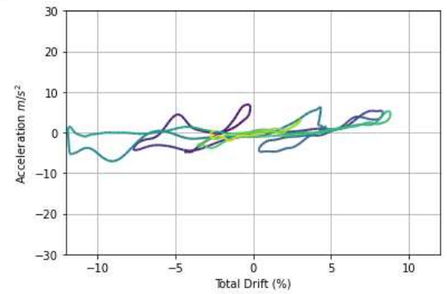
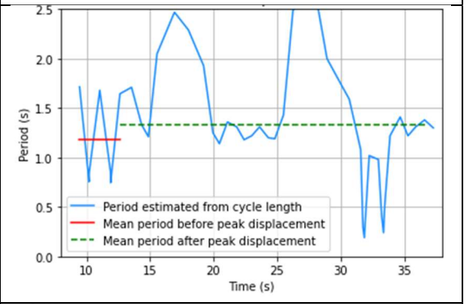
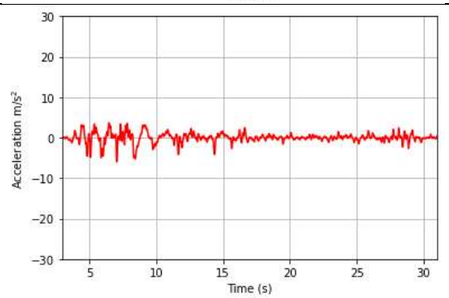
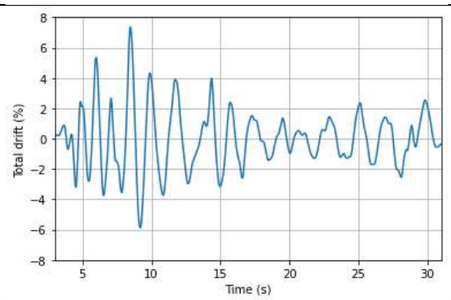
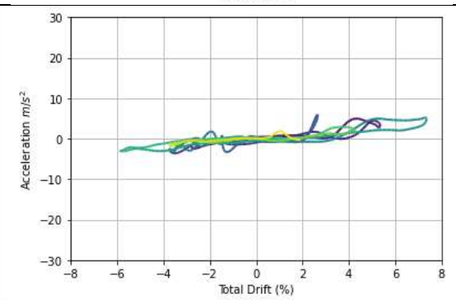
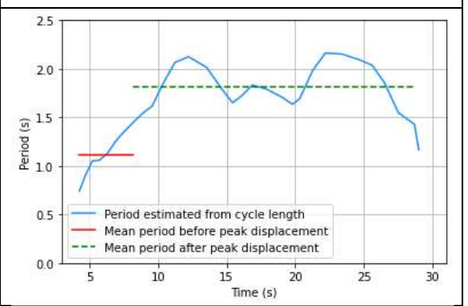
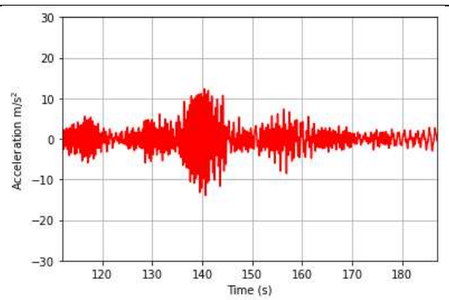
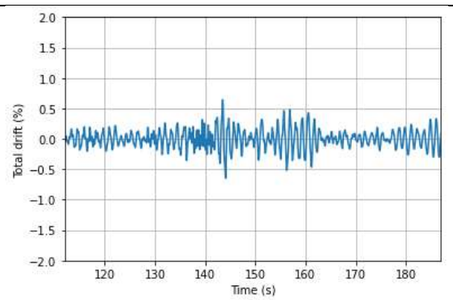
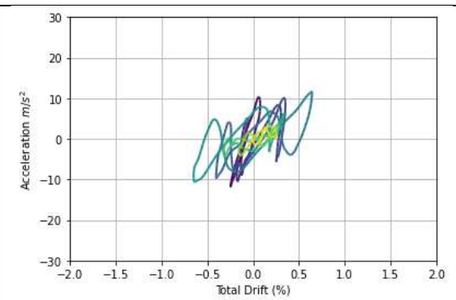
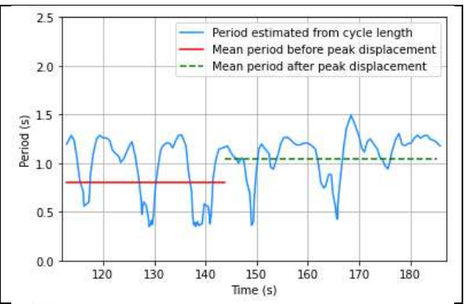
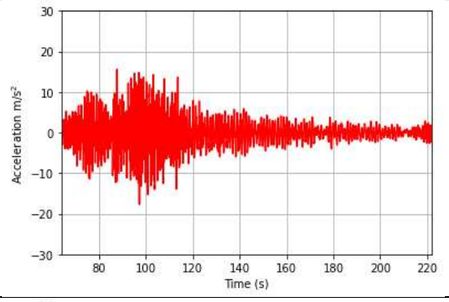
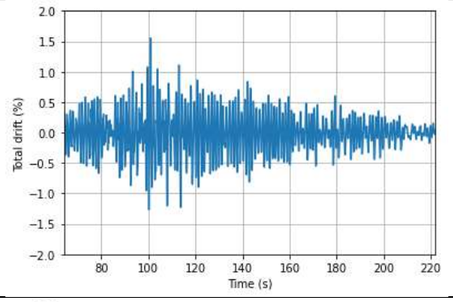
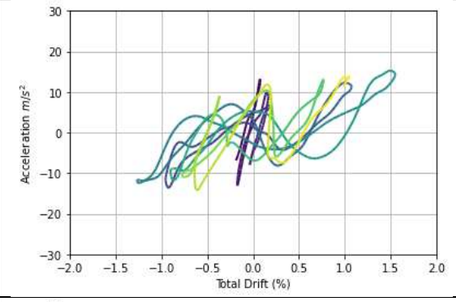
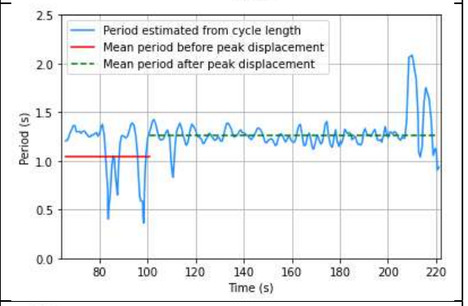
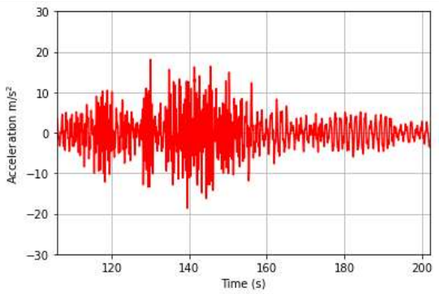
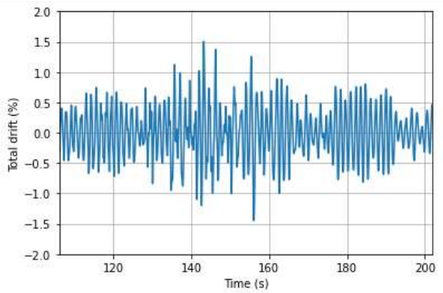
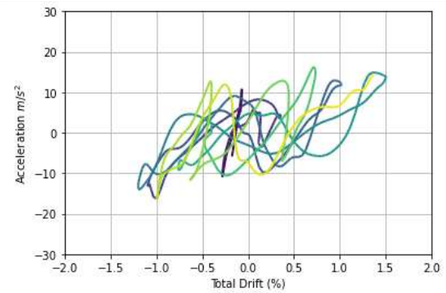
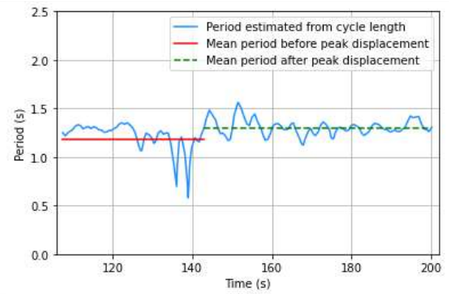
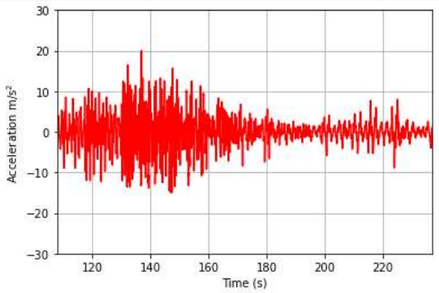
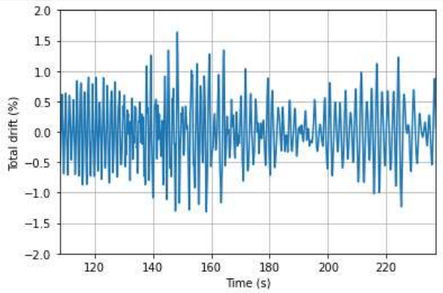
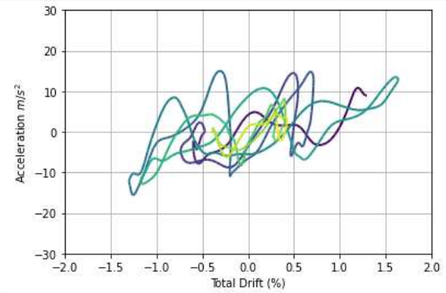
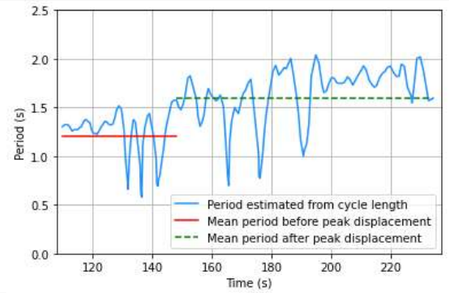
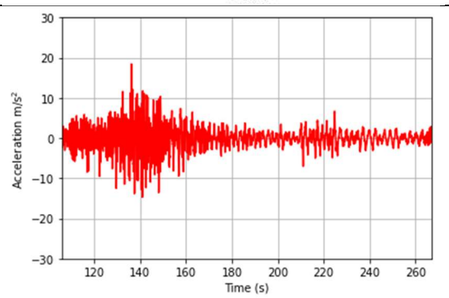
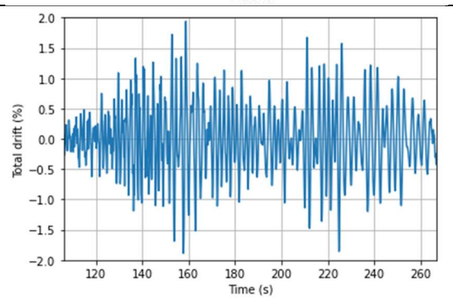
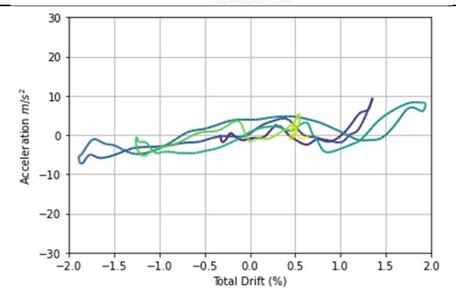
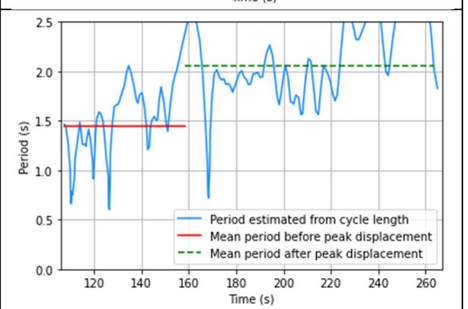
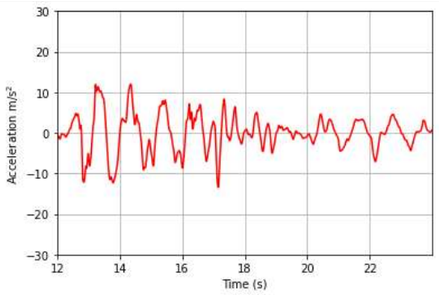
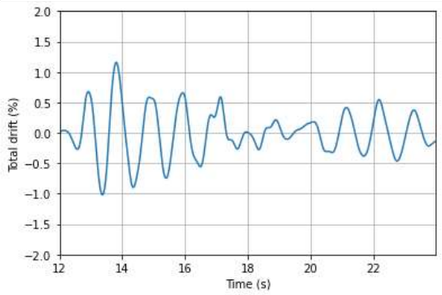
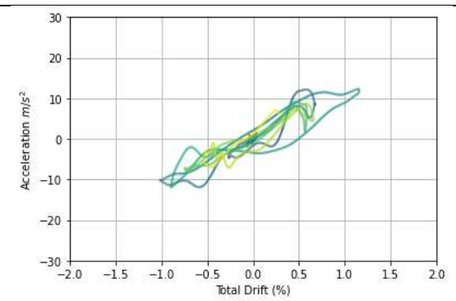
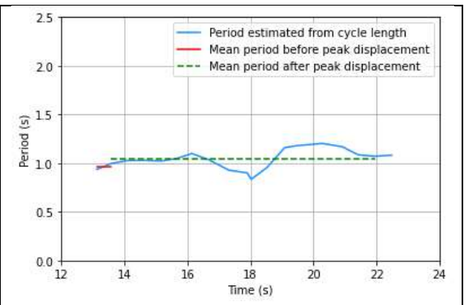
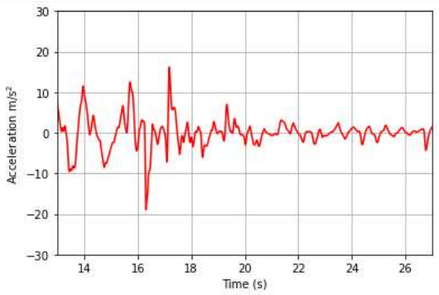
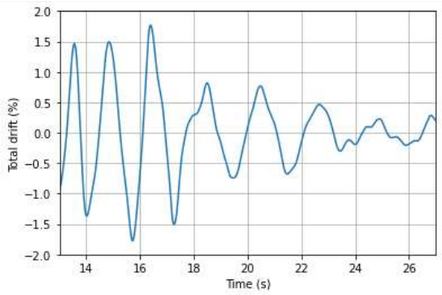
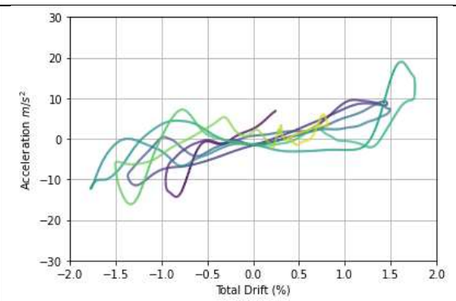
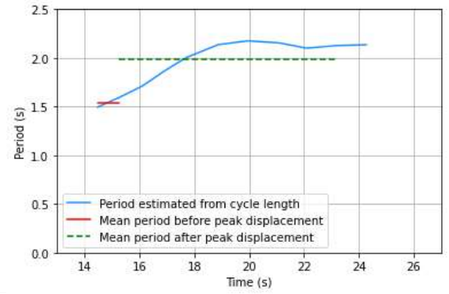
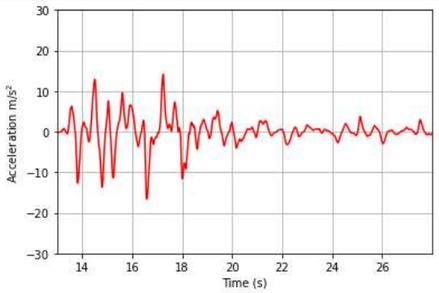
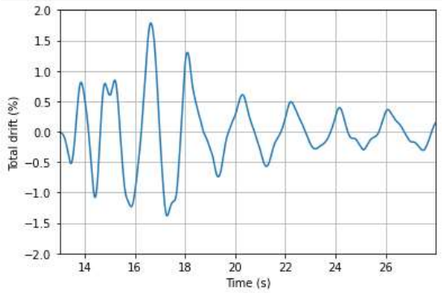
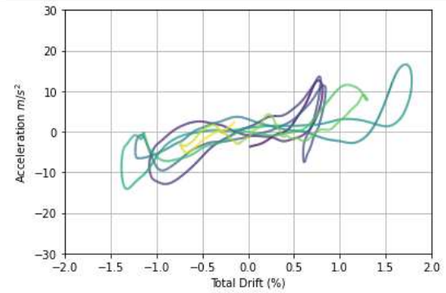
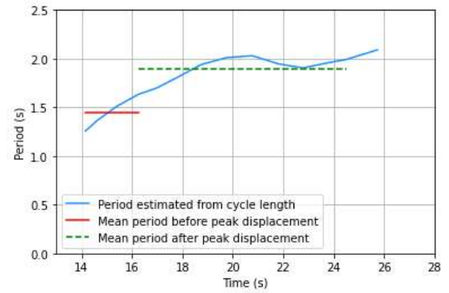
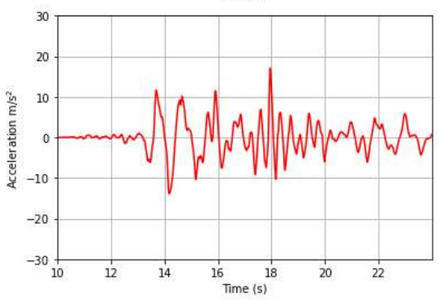
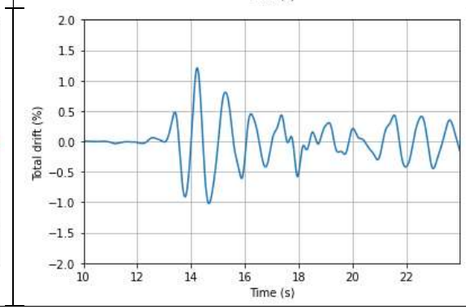
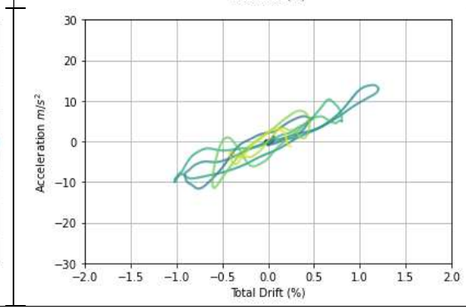
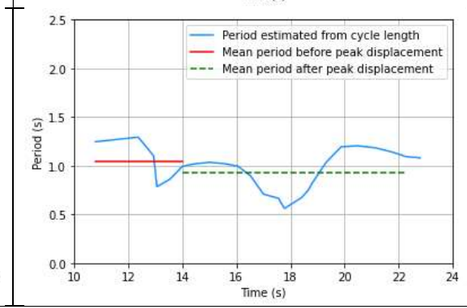
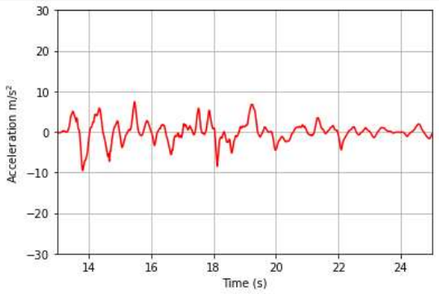
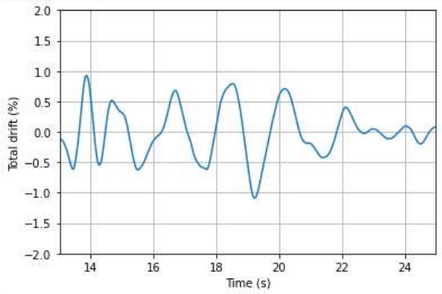
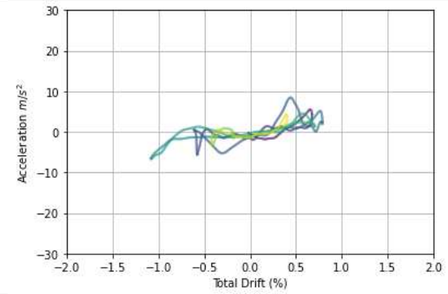
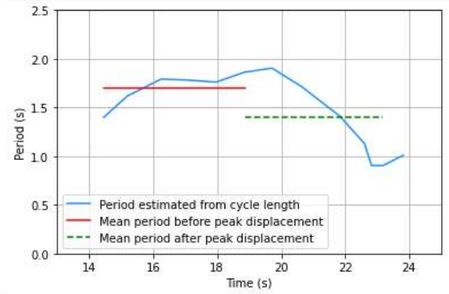
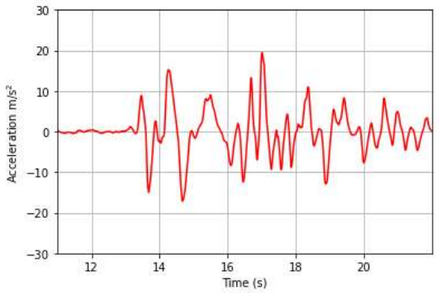
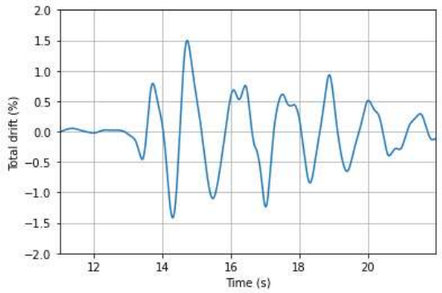
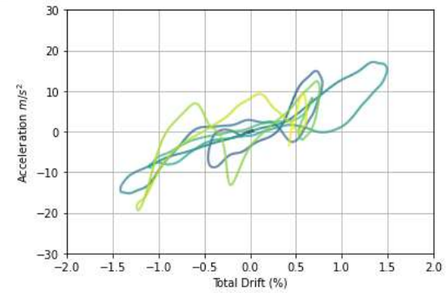
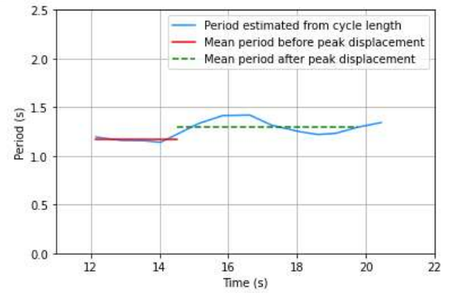
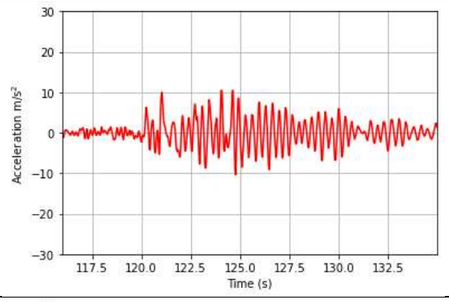
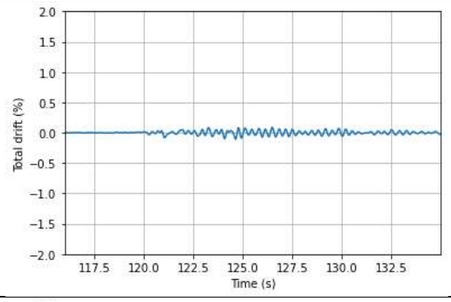
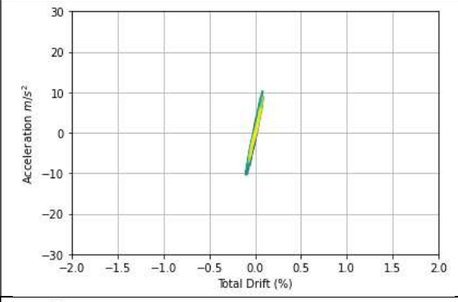
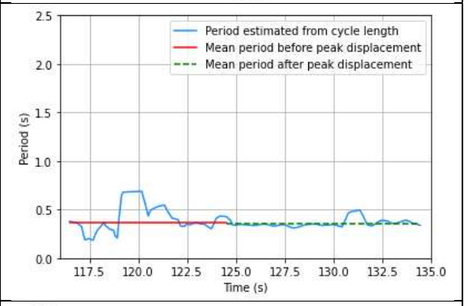
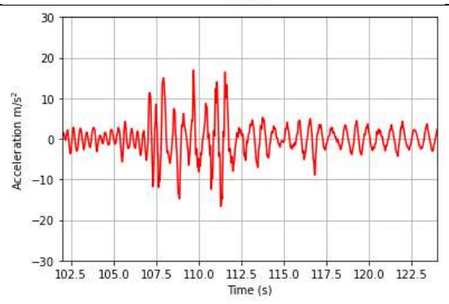
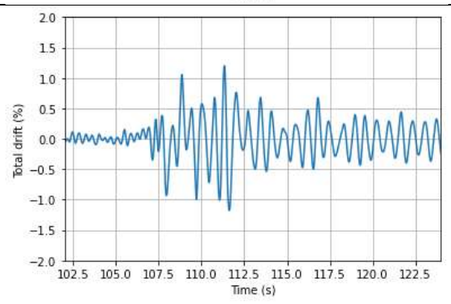
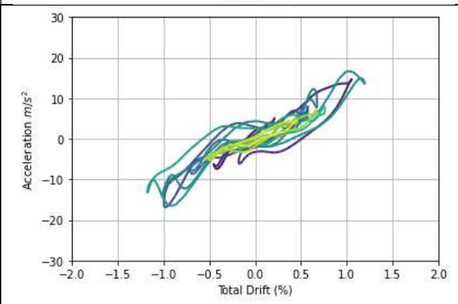
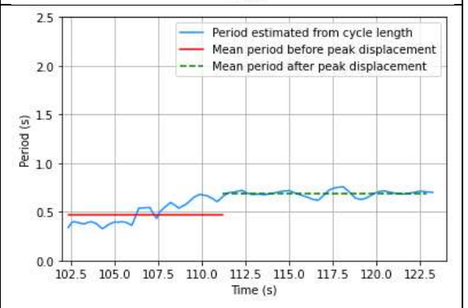
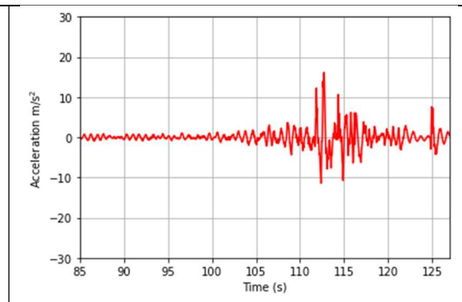
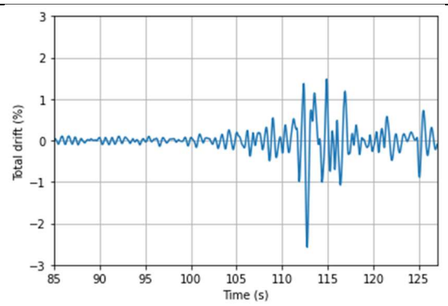
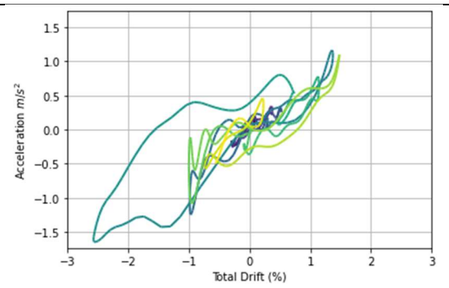
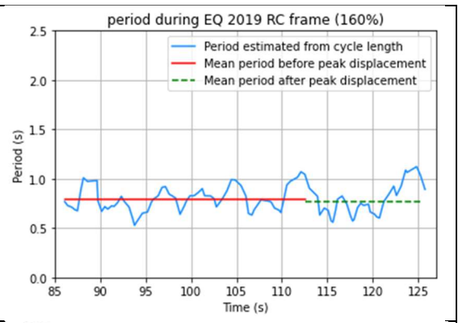
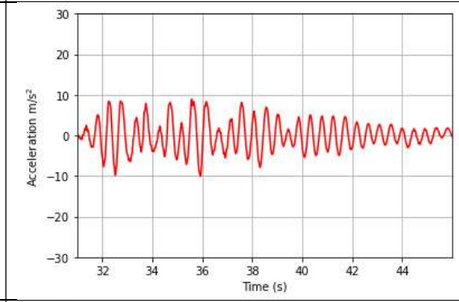
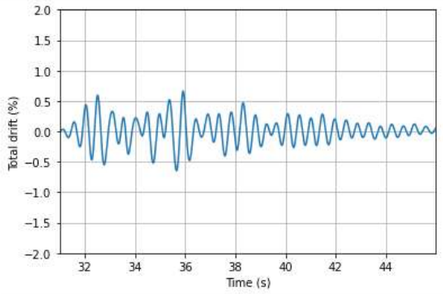
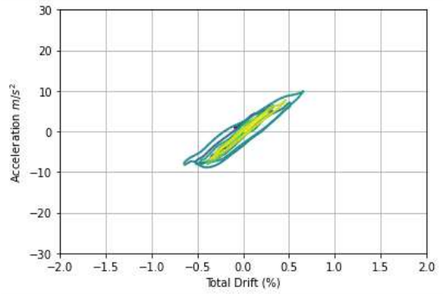
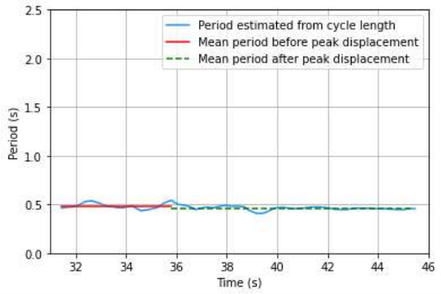
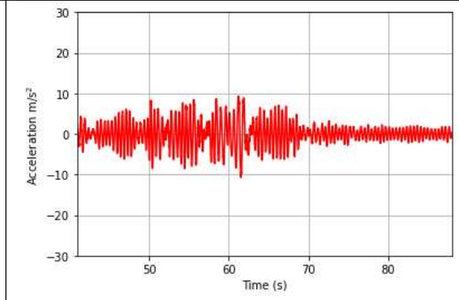
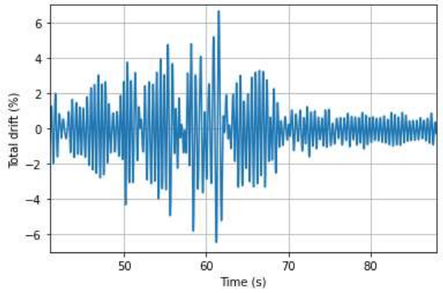
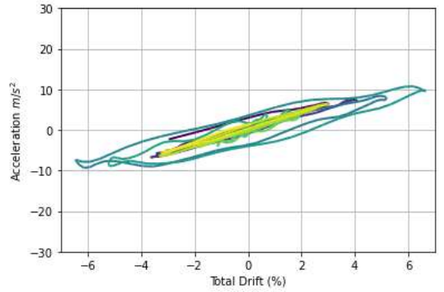
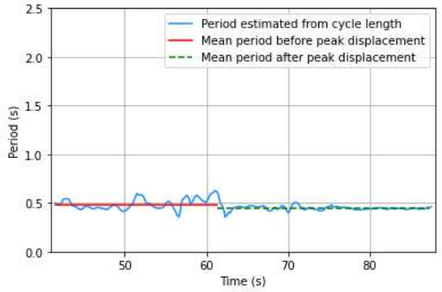
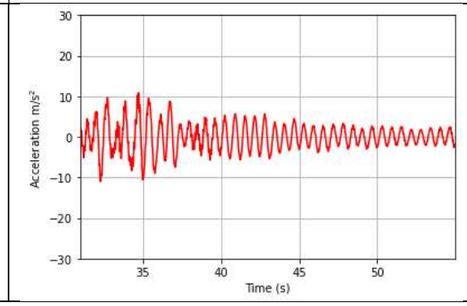
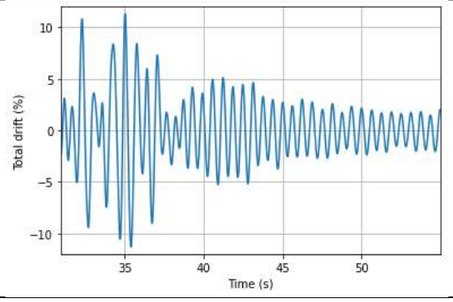
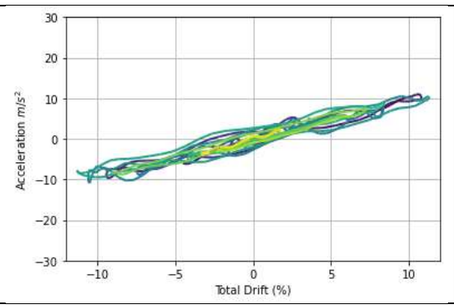
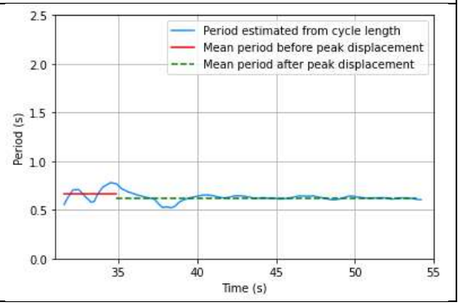
	Roof Acceleration	Roof drift ratio	Acceleration – displacement plot	Period time history
Tohoku Wang 1978 (1) Damage Classification = 1 9 Storey RC wall building Period Change = 7%, 0.97 to 1.04s Peak displacement = 21cm,0.6% @ 14.7s				
Tohoku Wang 2011 (2) Damage Classification = 3 9 Storey RC wall building. Period Change = 36% , 0.96 to 1.31s Peak displacement = 31 cm, 1.0% @ 81.3s				
7 storey RC hotel NS building (3) Damage Classification: 2 7 Storey RC Frame Building Period Change = 18%, 1.73 to 2.04s Peak displacement = 20 cm, 1% @ 10.7s				
7 storey RC hotel EW building (4) Damage Classification = 3 7 Storey RC Frame building Period Change = 30%, 1.53 to 1.99s Peak displacement= 23 cm, 1.2% @ 9.3s				

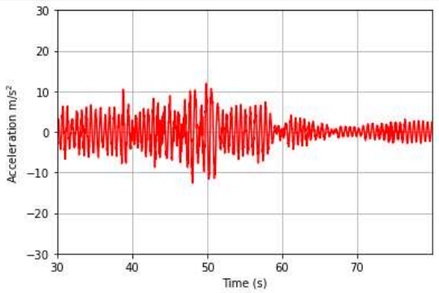
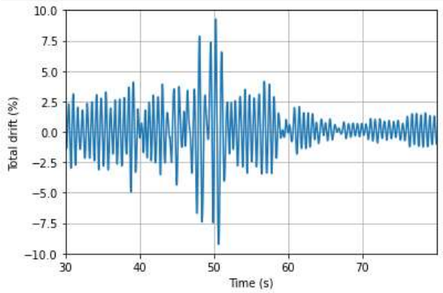
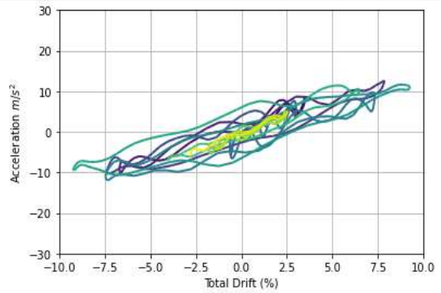
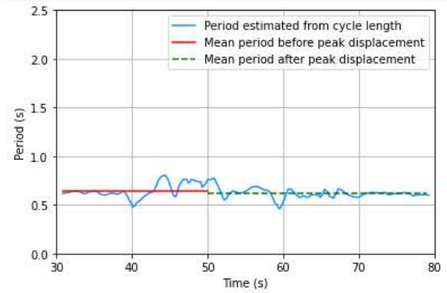
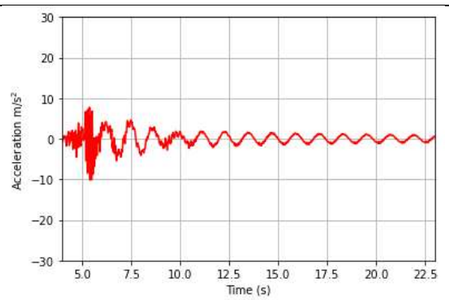
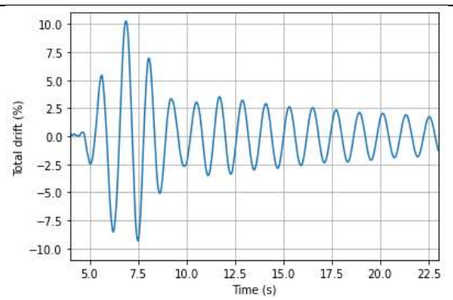
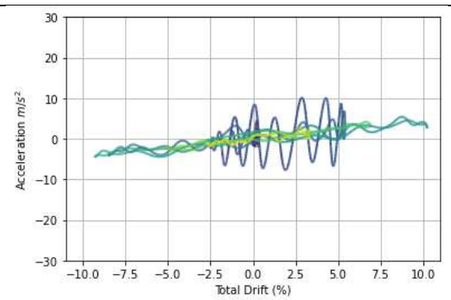
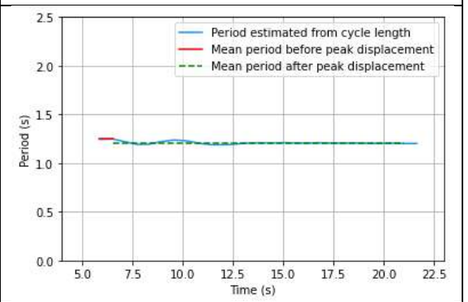
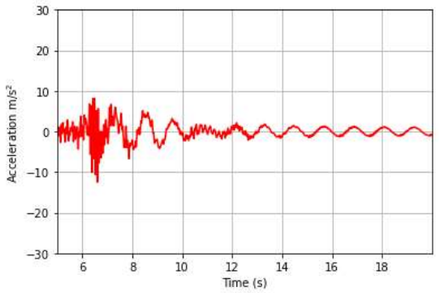
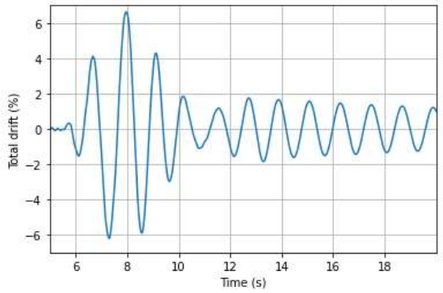
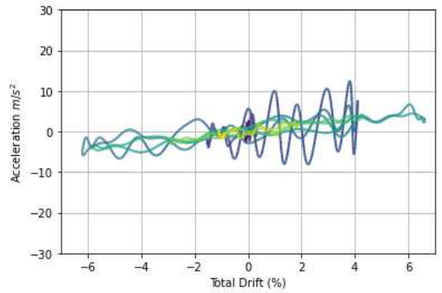
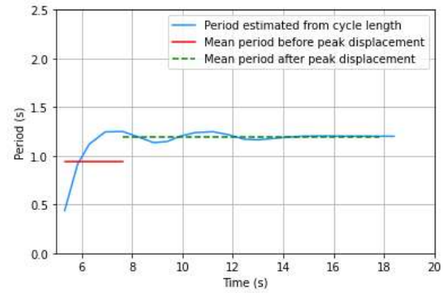
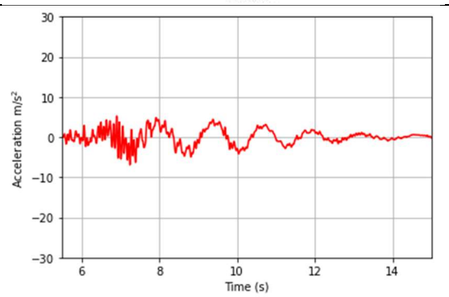
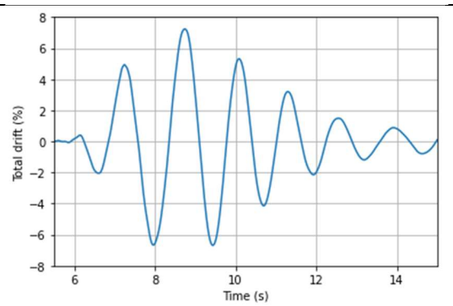
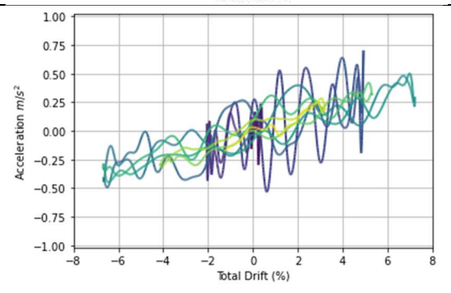
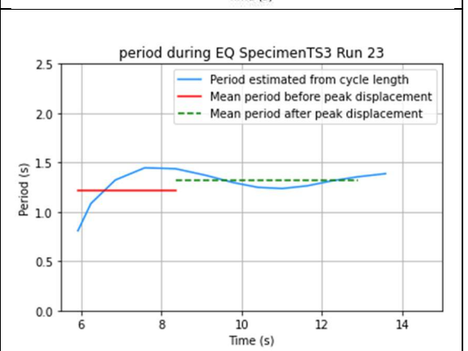
10 storey RC hotel building (5) Damage Classification = 3 10 Story RC Wall building Period Change = 56%, 0.91 to 1.42s Peak Displacement = 20cm, 0.6% @ 14.3s				
University of Illinois concrete structure MF2 S (6) Damage Classification = 1 10 Storey RC Frame discontinued beam Period Change = 30%, 0.92 to 1.19s Peak Displacement = 15 cm,6.3% @ 14.3s				
University of Illinois concrete structure MF1 S (7) Damage Classification = 1 10 Storey scaled RC Frame non uniform storey height Period Change = 13.4%, 1.18 to 1.33s Peak displacement = 29cm, 11.9% @ 13.1s Start plot = 8s Had to use peaks to calculate period				
University of Illinois concrete structure H1 S (8) Damage Classification = 2 10 Storey scaled Concrete Frame, uniform story height Period Change = 64% , 1.11 to 1.81s Peak Displacement = 18 cm, 7.4% @ 8.5s				

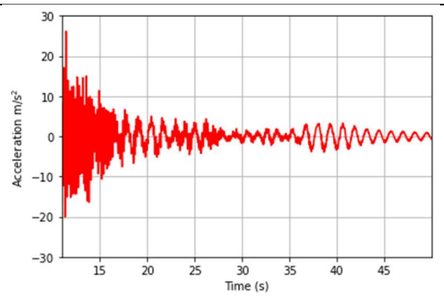
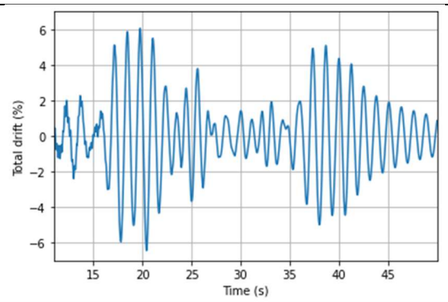
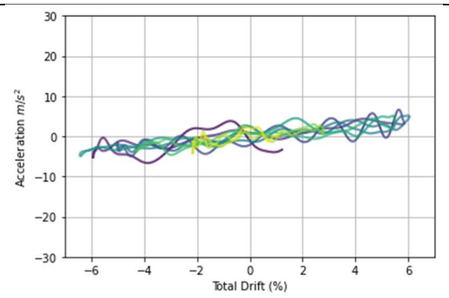
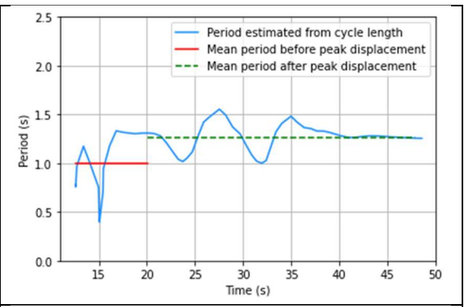
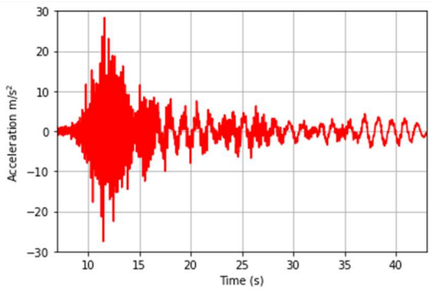
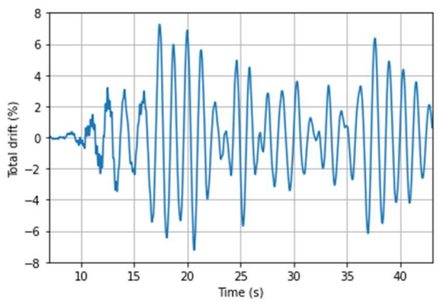
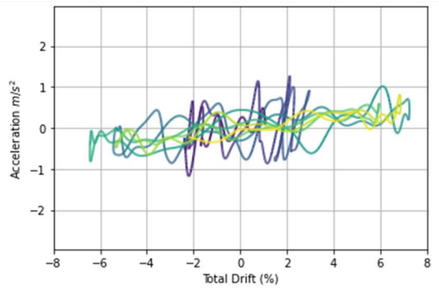
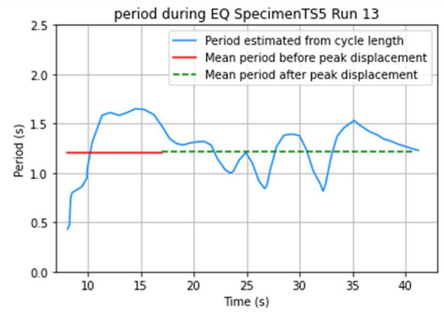
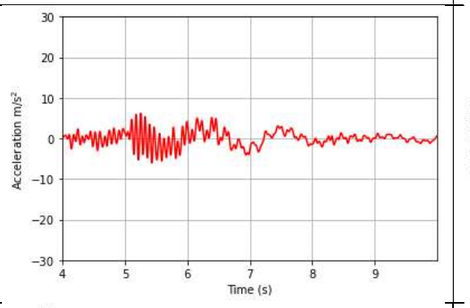
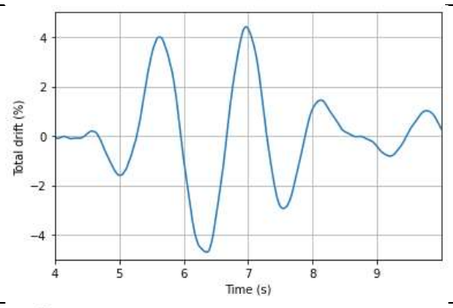
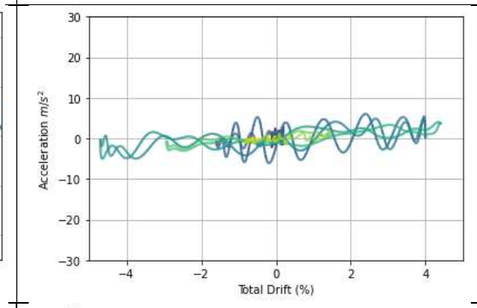
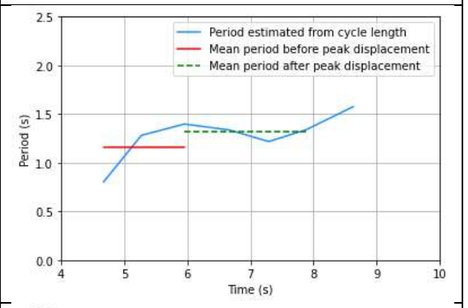
Suita Steel Structure (100%) (9) Damage Classification 1 18 Storey Steel Moment Frame structure scaled by a third Period Change = 29%,0.8 to 1.04s Peak Displacement = 16cm, 0.6% @ 144s.				
Suita Steel Structure (164%) (10) Damage Classification = 1 18 Storey Steel Moment Frame structure scaled by a third Period Change = 21%, 1.04 to 1.3s Peak Displacement = 39 cm, 1.6% @ 100.8s				
Suita Steel Structure (200%) (11) Damage Classification = 2 18 Storey Steel Moment Frame structure scaled by a third Period Change = 10%, 1.18 to 1.3s Peak Displacement = 38cm, 1.5% @ 143.2s				
Suita Steel Structure 230% (12) Damage Classification = 3 18 Storey Steel Moment Frame structure scaled by a third Period Change = 33%, 1.2 to 1.6s Peak Displacement = 42cm, 1.6% @ 148.4s				
Suita Steel Structure (270%) (13) Damage Classification = 3 18 Storey Steel Moment Frame structure scaled by a third Period Change = 43%, 1.45 to 2.06s Peak displacement = 49.2cm,1.9% @ 158.8s Threshold = 0.15, due to the outlying spike in acceleration				

2015 E defense 10 Story Structure NS (14) Damage Classification = 1 10 Storey full scale RC Wall Period Change = 8%, 0.97 to 1.04s Peak displacement = 32cm, 1.2% @ 13.8s				
2015 E defense EW (15) Damage Classification = 2 10 Storey full scale RC Frame Period Change = 29%, 1.54s to 1.99s Peak displacement = 45cm, 1.8% @ 15.7s				
2018 E defense 10 Story EW Run 9 (16) Damage Classification = 1 10 Storey full scale RC Frame Period Change = 31%, 1.44 to 1.89s Peak Displacement = 49cm, 1.8% cm @ 16.6s				
2018 E defense 10 Storey NS Run 9 (17) Damage Classification = 1 10 Storey full scale RC Wall Period Change = -12%, 1.05 to 0.93s Peak Displacement = 33cm, 1.2% @ 14.2s START PLOT = 10s				

2018 E defense EW Run 10 (18) Damage Classification = 1 10 Storey full scale RC Frame Period Change = -18%, 1.7 to 1.4s Peak Displacement = 30cm, 1.1% @ 19.2s				
2018 E defense NS Run 10 (19) Damage classification = 1 10 Storey full scale RC Wall Period Change = 11%, 1.17 to 1.3s Peak Displacement = 41 cm, 1.5% @ 14.7 seconds Start plot = 11s				
2019 RC Frame (100%) (20) Damage Classification = 1 3 Storey RC Frame Period Change = -2%, 0.37 to 0.36s Peak Displacement = 3cm, 0.1% @ 124.6s				
2019 RC Frame (150%) (21) Damage Classification = 1 3 Storey RC Frame Period Change = 47%, 0.47 to 0.7s Peak Displacement = 12cm,1.2% @ 111.3s				

2019 RC Frame (160%) (22) Damage Classification = 1 3 Storey RC Frame Period Change = -2%, 0.79 to 0.77s Peak Displacement = 27cm, 2.6% @ 112.7s Change threshold to 0.05				
3 Storey Steel Frame REHS 120% (23) Damage Classification = 1 3 Storey Steel cantilevered frame Period Change = -5%, 0.48 to 0.46s Peak Displacement = 7cm, 0.7% @ 35.9s				
3 Storey Steel Frame (NGA1509 150% (24) Damage Classification = 1 3 Storey Steel cantilevered frame Period Change = -8%, 0.49 to 0.45s Peak Displacement = 7cm, 6.7% @ 61.6s				
5 Storey Steel Frame REHS 120% (25) Damage Classification = 1 5 Storey Steel cantilevered frame Period Change = -7%, 0.67 to 0.62s Peak Displacement = 12cm, 11.3% @ 35s.				

5 Storey Steel Frame NGA1509 150% (26) Damage Classification = 1 5 Storey Steel cantilevered frame Period Change = -4%, 0.64 to 0.61s Peak Displacement = 17cm, 9.3% @ 50.2s				
Idealised Aluminium Structure TS1R4 (27) Damage Classification = 0 17 Storey idealised aluminium MDOF structure Period Change = -3%, 1.25 to 1.21s Peak Displacement = 18cm, 10.2% @ 6.9s				
Idealised Aluminium Structure TS2R8 (28) Damage Classification = 0 17 Storey idealised aluminium MDOF structure Period Change = 28%, 0.94 to 1.2s Peak Displacement = 19cm, 6.6% @ 8s				
Idealised Aluminium Structure TS3R23 (29) Damage Classification = 0 17 Storey idealised aluminium MDOF structure Period Change = 7.8% , 1.22 to 1.32s Peak Displacement = 21cm, 7.2% @ 8.7s Start_plot = 5.5				

Idealised Aluminium Structure TS4R13 (30) Damage Classification = 0 17 Storey idealised aluminium MDOF structure Period Change = 27%, 1 to 1.27s Peak Displacement = 19cm, 6.4% @ 20.4s Change threshold function to use disp_relative				
Idealised Aluminium Structure TS5R13 (31) Damage Classification = 0 17 Storey idealised aluminium MDOF structure Period Change = 0% , 1.21 to 1.21s Peak Displacement = 21cm, 7.3% @ 17.4s Change threshold 0.05				
Idealised Aluminium Structure TS6R22 (32) Damage Classification = 0 17 Storey idealised aluminium MDOF structure Period Change = 14% , 1.16 to 1.32s Peak Displacement = 14cm, 4.7% @ 6.4s Use unaveraged period function here				
Idealised Aluminium Structure TS7R35 (33) Damage Classification = 0 17 Storey idealised aluminium MDOF structure Period Change = 1%, 1.09 to 1.1s Peak Displacement = 22cm, 7.6% @ 7.1s Start plot = 5.5 End plot = 15 Use unaverage period