

# PEDAC: Automated Pedestrian Collision Avoidance System

## Algorithm Efficiency

### Normal Operational Mode

#### Moving then stopped – Normal

Scen #	With APCAS	Without APCAS	Time Lost	% Difference
1	-	3.24s	-	-
2	10.81s	3.24s	7.57s	+233%
3	6.47s	3.24s	3.23s	+99.7%
4	4.42s	3.24s	1.18s	+36.4%

#### Static then moving – Normal

Scen #	With APCAS	Without APCAS	Time Lost	% Difference
5	5.49s	3.24s	2.25s	+69.4%
6	7.96s	3.24s	4.72s	+146%
7	7.85s	3.24s	4.61s	+142%

#### Static – Normal

Scen #	With APCAS	Without APCAS	Time Lost	% Difference
8	-	3.24s	-	-
9	11.06s	3.24s	7.86s	+242%
10	4.78s	3.24s	1.54s	+47.5%

## Fail Safe Operational Mode

### Moving then stopped – Fail Safe

Scen #	With APCAS	Without APCAS	Time Lost	% Difference
1	-	3.24s	-	-
2	9.93s	3.24s	6.69s	+206%
3	7.94s	3.24s	4.70s	+145%
4	4.48s	3.24s	1.24s	+38.3%

### Static then moving – Fail Safe

Scen #	With APCAS	Without APCAS	Time Lost	% Difference
5	5.29s	3.24s	2.05s	+63.3%
6	7.83s	3.24s	4.59s	+142%
7	7.83s	3.24s	4.59s	+142%

### Static – Fail Safe

Scen #	With APCAS	Without APCAS	Time Lost	% Difference
8	-	3.24s	-	-
9	9.92s	3.24s	6.68s	206%
10	5.56s	3.24s	2.32s	71.6%