

## Table of Figures

Figure 2.1: Evolution of Crisp Prey Predator Population .....	34
Figure 2.2: Evolution of Fuzzy Prey Population .....	36
Figure 2.3: Evolution of Fuzzy Predator Population .....	36
Figure 2.4: Evolution of Fuzzy Population of diabetes patients with and without complications .....	38
Figure 2.5: Evolution of Fuzzy Population of diabetes patients with complications .....	38
Figure 3.1: Number of uninfected people those may be infected .....	49
Figure 3.2: Number of infected people those may spread infection .....	50
Figure 3.3: Number of infected people they may spread infection by the second technique.....	50
Figure 3.4: Number of uninfected people who may be infected by the second technique .....	51
Figure 4.1: Expenditure for country $X$ .....	57
Figure 4.2: Expenditure for country $Y$ .....	57
Figure 4.3: Fuzzy Number representation of Prey population at $t = 0 \& 0.1$ .....	71
Figure 4.4: Fuzzy number representation of Predator population at $t = 0 \& 0.1$ .....	71
Figure 4.5: Fuzzy Number representation of Prey population at $t = 0 \& 0.1$ .....	73
Figure 4.6: Fuzzy Number representation of Predator population at $t = 0 \& 0.1$ .....	73
Figure 4.7: Fuzzy Number representation of Prey population at $t = 0 \& 0.1$ .....	74
Figure 4.8: Fuzzy Number representation of Predator population at $t = 0 \& 0.1$ .....	75
Figure 5.1: Evolution of Predator population for $t = 0$ to $t = 0.5$ .....	84
Figure 5.2: Evolution of Prey population for $t = 0$ to $t = 0.5$ .....	84
Figure 6.1: Energy balance of absorber plate, backplate and airflow in the solar air collector .....	108
Figure 6.2: Effect on the temperature at different fuzzy initial temperature for mass (0.0300).....	116
Figure 6.3: Effect on the temperature at different fuzzy initial temperature for mass (0.0600).....	116
Figure 6.4: Effect on the temperature at different fuzzy initial temperatures for mass (0.0800) .....	117