## Abstract:

Sessile nature of trees and plants call for continuous adaptation to pandemic changes in environment and stomata plays a crucial role in allowing and blocking the intake of various gases and water vapor. Tropospheric O 3 is a phytotoxic pollutant and g s values along with the environmental factors affect its uptake by the leaves of the trees. Dry deposition on vegetated and non-vegetated surfaces of the plant accounts for about 25% of the total Ozone removed from the troposphere. The response of Stomata to PAR, CO 2 , VPD, and Temperature was studied and plotted for two trees i.e. Populous Deltoides and Ficus Religiosa. Also, seasonal variation in g s values was obtained by taking g s measurements in the field for both the trees using leaf porometer. The study also aimed to investigate the applicability of DO 3 SE Model to Populous Deltoides and Ficus Religosa. The model performance was assessed by comparing modeled vs measured g s .