World Academy of Science, Engineering and Technology International Journal of Environmental and Ecological Engineering Vol:9, No:06, 2015

## Effect of Coal Fly Ash on Morphological and Biochemical Characteristics of Helianthus Annuus L. Sunflower

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**Abstract:** An investigation was conducted to study the different concentration of coal fly ash solution on morphological and biochemical parameters of Helianthus annuus L. The seeds of Helianthus annuus L. were placed in petri dishes in three replicates and allowed to grow for 16 days in different concentration of coal fly ash solution. Shoot length, root length and fresh weight, dry weight declined with increasing concentration of fly ash. Semidiluted and concentrated fly ash solution exhibited significant reduction in chlorophyll, protein, sugar and ascorbic acid. Concentration dependent changes were observed in most of parameters. Diluted solution of fly ash revealed the maximum increase morphological and biochemical changes of seedlings.

Keywords: Helianthus annuus L., protein, sugar, chlorophyll, coal fly ash

Conference Title: ICESE 2015: International Conference on Environmental Sciences and Engineering

**Conference Location :** Toronto, Canada **Conference Dates :** June 15-16, 2015