

IAF EARTH OBSERVATION SYMPOSIUM (B1)
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Author: Mr. Abner Plata
Instituto Tecnológico de Durango (ITD), Mexico, abner023@outlook.com

Ms. Andrea Dominguez
Instituto Tecnológico de Durango (ITD), Mexico, andyblue.does@gmail.com

DELIMITATION OF LIGHT POLLUTION THROUGH SATELLITE IMAGES FOR THE
PROTECTION OF ENDEMIC SPECIES AND ENERGY SAVINGS.

Abstract

The exponential growth of urban areas has caused new changes in the weather conditions that are affecting the life of this planet, one of the biggest problems is light pollution, thanks to this, thousands of species change their sleep cycle, have a displacement of their natural habitat and have to adapt to the new ecosystem changes that are suffering for the same reasons, problems for the food chain, as well as directly affecting the human being, which is intended to be solved in the following research.

With the information from the constellation of LANDSAT satellites, SENTINEL we have information about the delimitation of urban territories, semi-urban, rural areas, jungles, forests, deserts, and which are the species that inhabit each of them, then, by evaluating the indices of light pollution in each of the aforementioned areas, information is obtained from VIRS AND NOAA.

With this, we have a data collection in which software contrasts the level of danger in which the species are, in order to form new protected natural areas, make risk maps for future constructions and a detailed care of our species avoiding that they are in danger of extinction, this would also launch a development plan for the reduction of light pollution through proper management of public lighting and the reduction of energy consumption in large cities.