Department of Zoology

REPORT ON 'GEOSPATIAL APPLICATION IN BIODIVERSITY MONITORING AND CONSERVATION'

A lecture was organized by the Department of Zoology, Avinashilingam Institute for Home Science and Higher Education for Women, on 9thMarch 2023. It was conducted with regards from Dr. A Vijayalakshmi, Dean, School of Biosciences and DrK Manimegalai, Professor and Head, Department of Zoology. The resource person was DrA Rajasekaran, Scientist-F and head in the Institute of Forest Genetics and Tree Breeding, a regional Institute of Indian council of Forestry Research and Education (ICFRE), who delivered a lecture on the topic, 'Geospatial Application in Biodiversity Monitoring and Conservation'. It was organized by Dr K S Santhy, Professor, Department of Zoology.

The lecture gave an insight into the topic of GIS, GPS, and remote sensing, which are the essential components of geospatial study. Remote sensing technology, which is the collection of information about an area with a device, usually a satellite and without direct contact was explained. The types of remote sensing based on the energy source were also elucidated. The basis of remote sensing which is the reflection of the electromagnetic spectral energy, either from the sun or from an artificially generated source was demonstrated and explained.

The students were made aware of the false colour compositions used in visualizing a field and the resolution of different satellites used for the same. Dr.Rajasekaran also touched upon the topics that included the characteristic nature of the sensors, their spatial coverages along with the temporal resolution that is essential, but different for satellites with different uses. False colour-composed images were shown and the students were asked to differentiate among the different elements or components in the topographic map.

He also put in the picture the different software that are available and whether they are open-sourced or free or paid. Similarly, the nature of the Geographic Information system and the Global positioning system was elaborated in detail. This could be applied to mapping the areas of concern and even mapping the organism and its habitat. It will not only help in present condition mapping but also in the future. Another application includes studying a change in the pattern of habitat distribution or migration based on the past data that is available. Dr A Rajasekaran also pointed out that this could greatly help in combating habitat loss by protecting the areas of concern and also help understand climate change patterns through the years.

Thus, the students were able to acquire knowledge on the basic principles of remote sensing, data analysation, and visualisation, and their ultimate use in predicting the ecological pattern and the climate change pattern.

AVINASHILINGAM INSTITUTE FOR HOME SCIENCE AND HIGHER EDUCATION FOR WOMEN

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Coimbatore - 641043, Tamil Nadu, India

The members of the Zoology Association cordially invite you for the

Valedictory meeting on 9ᵗʰ March 2023 at 11.00 am

A Rajasekaran,
Scientist-F, Head in the Institute of Forest Genetics and Tree Breeding,
Regional Institute of Indian council of Forestry Research and Education (ICFRE)

Will deliver the a lecture on

"Geospatial Application in Biodiversity Monitoring and Conservation"

DR K S SANTHY
Professor of Zoology
Deputy Dean, School of Biosciences
Avinashilingam Institute for Home Science and Higher
Education for Women, Coimbatore - 43

Will preside

Venue   : **UG Lab**

Audience : **All UG and PG Zoology Students**