**GEOCOMPUTATION WITH DATASCIENCE USING R**

**ABSTRACT:**

**Geocomputation with R** is for people who want to analyze, visualize and model geographic data with open-source software. It is based on R, a statistical programming language that has powerful data processing, visualization, and geospatial capabilities.

It is an approach to both human and geographical systems which seeks to exploit recent developments in geographic information science (GIS) for the solution of the real-world problems. Maps are used in a variety of fields to express data in an appealing and interpretive way. Data can be expressed into simplified patterns, and this data interpretation is generally lost if the data is only seen through a spread sheet. Maps can add vital context by incorporating many variables into an easy to read and applicable context. Maps are also very important in the information world because they can quickly allow the public to gain better insight so that they can stay informed. It’s critical to have maps be effective, which means creating maps that can be easily understood. Current solutions for creating maps usually involves GIS software.

Using R to create maps brings these benefits to mapping. Elements of a map can be added or removed with ease.

Also R provides many packages such as ggplot2, rnaturalearth, rnaturalearthdata and many more to create and display maps.

KEYWORDS:

Geocomputation

Data processing

GIS