



## COURSE CONTENT

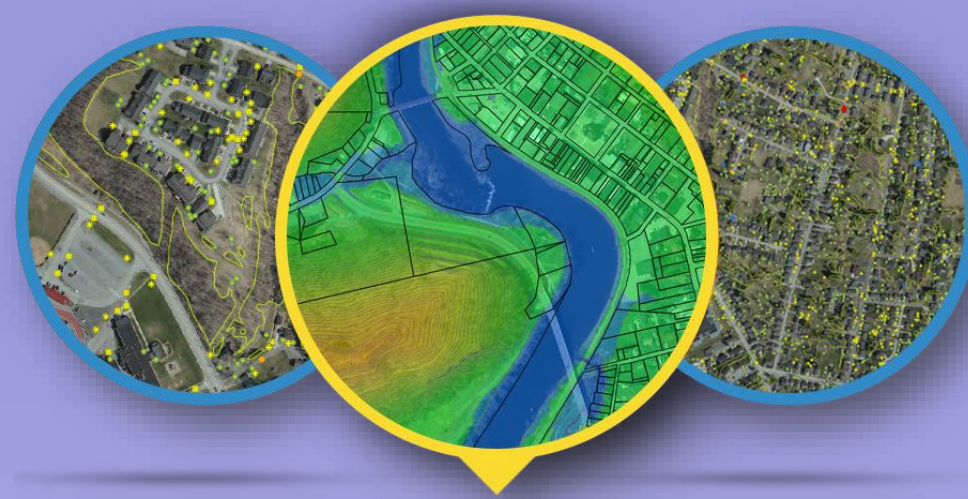
- Introduction and Overview of GIS.
- Data and Spatial Data Model.
- GIS & Maps, Map Projections and Coordinate System.
- Introduction to ArcGIS Desktop.
- Managing Data with ArcCatalog
- Spatial Data Visualization & Making Maps.
- Digitization & Data Capture from Maps.
- Database Concepts.
- GIS Data Collection & Mapping.
- Spatial Analysis
- GIS Applications

## COURSE DURATION

**Eight (08) days / 56 Hrs.**

## COURSE FEE

The course fee is **Rs. 25,000/=** per participant.



C  
O  
M  
E  
  
E  
X  
P  
L  
O  
R  
E  
  
T  
H  
E  
  
W  
O  
R  
L  
D  
  
O  
F  
  
G  
I  
S



## INQUIRIES

Information can be obtained from the Department website given below;

[www.cmb.ac.lk/academic/arts/Geo/index](http://www.cmb.ac.lk/academic/arts/Geo/index)

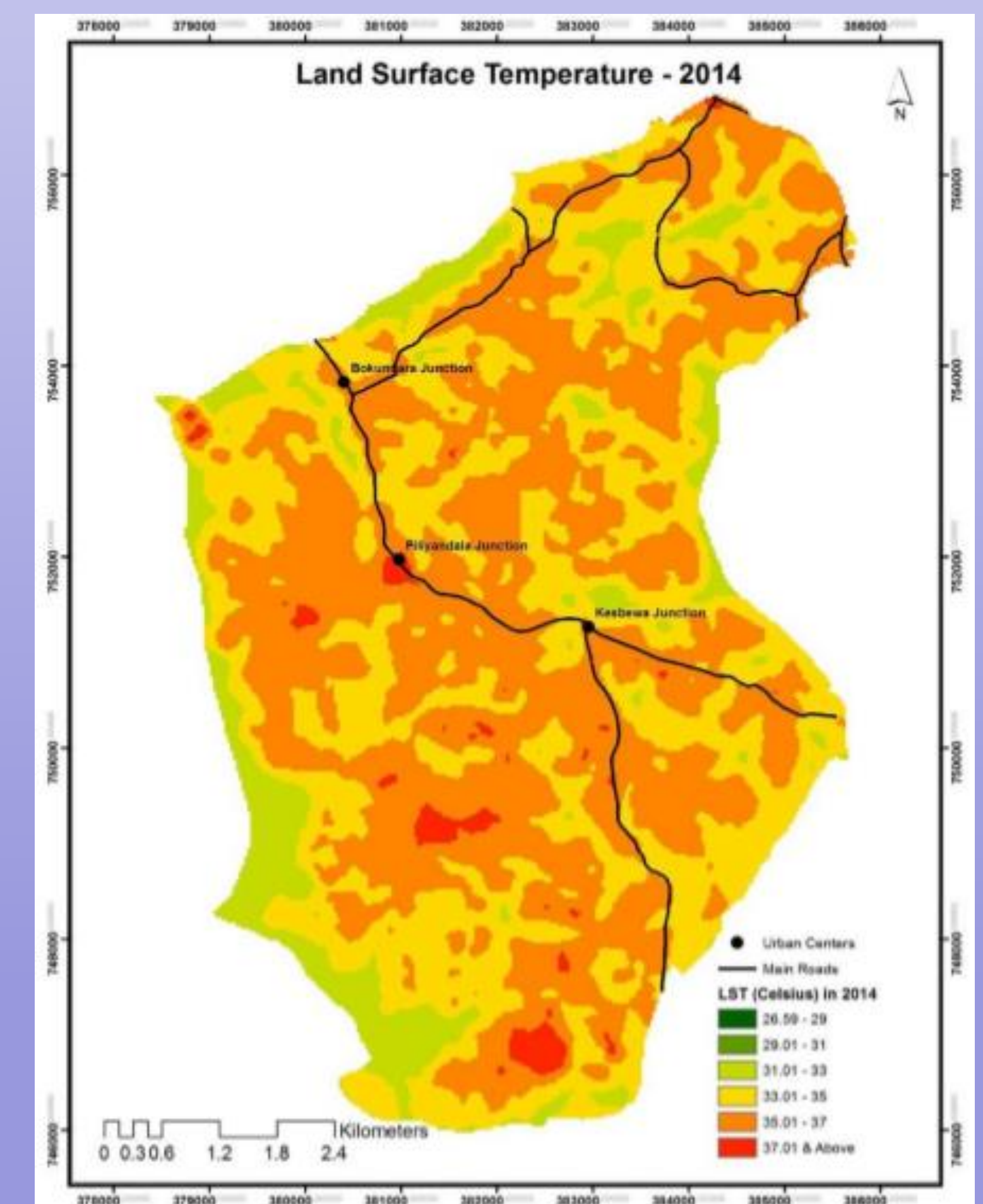
**Contact :**

Mr. Asitha De Silva/ Ms. V. P. I. Sandamali  
Course Coordinators  
Department of Geography  
University of Colombo.

Mobile – 0715867767/ 0716969353

E-mail: [asitha@geo.cmb.ac.lk](mailto:asitha@geo.cmb.ac.lk)  
[sandamali@geo.cmb.ac.lk](mailto:sandamali@geo.cmb.ac.lk)

# Geographical Information Systems (GIS)



Land Surface Temperature in Keskewa UC, 2014

**Department of Geography  
University of Colombo**

*DISCOVERING THE WORLD THROUGH GIS*



## INTRODUCTION

Geographical Information Systems (GIS), Global Positioning Systems (GPS) and Remote Sensing (RS) are considered as the fastest growing disciplines in the present world. All three are inter-related and mutually depended enabling technologies which influence the other disciplines to enhance the quality of their research work.

The ***Department of Geography***, Faculty of Arts is one of the pioneers in this discipline in Sri Lanka. The Department has organized its first GIS training programme in Sri Lanka during 1992 with the assistance of EMSO (Local agent of the ESRI). Since then, the Department has conducted more than 39 short training courses in GIS for government and non-governmental organizations in the country to up to date. The Department has trained nearly 1000 officers from relevant departments and institutions. Several GIS related consultancies for government agencies have been also conducted. Department of Geography is the first department which offered GIS courses for the undergraduates among the national Universities in Sri Lanka. In addition to the courses offered for the undergraduates in the Faculty of Arts, the Department offers two undergraduate GIS courses for the Faculty of Science.

## COURSE OBJECTIVES

- To understand the principles and basic concepts of Geographical Information Systems and Geo-informatics
- To understand the techniques and procedures required to capture, integrate and manage spatial and apatial data for use in a GIS.
- To learn how to develop GIS database and how to perform spatial and aspatial analysis using Geostatistical techniques.
- To be acquainted with GPS and RS applications
- To explore spatial modeling and simulation techniques
- To acquire hands-on training in the applications of GIS techniques
- To learn how to Plan, Implement, and manage GIS projects
- To develop skills and capabilities to use GIS and Geo-informatics for selected case studies

## COURSE STRUCTURE

This course will consist of and integrated mix lectures and laboratory exercises using following GIS software

- ArcGIS 10x
- QGIS 2x

## VENUE

**GIS, Laboratory**  
Department of Geography  
University of Colombo

## COURSE MATERIALS

Very comprehensive set of course materials (hard and soft) will be provided. GIS assisted problem solving operations and step by step procedures are demonstrated in manual format (sample can be obtained in the Department website).

DISCOVERING THE WORLD THOUGH GIS