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MANUAL OF GEOGRAPHIC INFORMATION SYSTEMS

Volume 1

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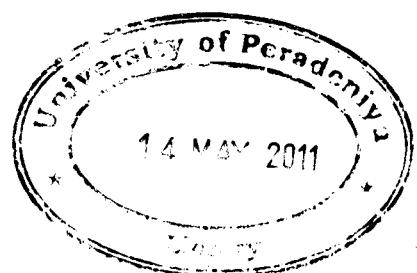
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MANUAL OF GEOGRAPHIC INFORMATION SYSTEMS

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ABSTRACT

Geographic Information System (GIS) is an emerging subject in Sri Lanka. The demand for the short term training and higher educational programs in GIS has been rapidly increased during the last several years. Presently, several higher educational institutions in Sri Lanka have been involved in GIS training. Most of these training programs are mainly based on foreign data sets and literature which might not well matched with Sri Lankan context. The teaching materials used in GIS training often improve the quality of a GIS education. Therefore development of a comprehensive study manual for GIS with local data and examples will definitely help for the local GIS training programs. With this intension, the “Manual of Geographic Information Systems” was developed with local data and examples which may be used in GIS training programs conducted by higher educational institutes in Sri Lanka.

The Manual mainly contains two sections for theory and practical. The theory section explains basic to intermediate levels of GIS theories and concepts while practical section demonstrate how to perform GIS functions with software. The theory section consists 07 chapters and mainly discusses topics such as data preparation, data analysis, data visualization and ArcGIS software related concepts. This will cover within 30 lecture hours of a basic GIS course. The practical section includes ArcGIS software based exercises which provides step-by-step practice and introduces how to perform specific steps. This section demonstrates basics of ArcGIS, working with maps, working with attributes, creating and editing data and data analysis. The practical section will cover around 60 instructor-led practical hours.