

## **THE APPLICATION OF SOFTWARE BASED TECHNOLOGY FOR PROJECT IDENTIFICATION – A CASE STUDY OF SPACE SYNTAX ANALYSIS**

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### **ABSTRACT**

Project identification is to develop a preliminary proposal for the most appropriate set of interventions and course of action, within a specific time and budget frames, to address a specific development goal in a particular region or setting. Project success is decided on best project identification, which guides in setting project objectives to solve a given development problem or to use the opportunity for the development of a particular aspect. The "Space Syntax Analysis" is a science-based Geographical Information System (GIS). In practice, the space syntax provides a major project planning information including patterns of movement, density, land use and land value, urban growth and societal differentiation which can be used for generation and evaluation of project ideas. The research objective is to identify the usage of space syntax technology in project identification. Moratuwa, which is a large suburb of Colombo city, was selected to investigate the relationships between spatial layout and project identification. The criteria were used for connectivity levels using space syntax analysis

methods such as very high, high, moderate, low, and very low. New development project ideas were generated using the space syntax analysis. The result of this study helps to identify the new projects ideas and valuable information for stimulating innovation of regions for sustainable development.

**Keywords:** *Geographical information system, project identification, project success, space syntax analysis, sustainable development*

## **INTRODUCTION**

Space syntax (SSX) as a theory and methodology has been widely applied in developed countries for spatial decision making and used as active professional practice in an urban and regional context. The space syntax has been recognized as a critical development in the study of urban morphology and the analysis of urban spatial form and function (Gauthier & Gilliland, 2006), (Carmona & Tiesdell, 2007), (Carmona et al., 2003) and (Cuthbert, 2003 & 2006). It is recognized in the United Kingdom as a valid standard of evidence for assessing the impact of planning applications, is taught in many universities and professional master-classes and has become a component of policy evaluation for many local governments seeking to address issues of movement and public space in urban design.

It has also been applied on over 1,000 different urban design projects internationally (Space Syntax Limited, 2008) acquiring a reputation for functional evaluation, successful project identifications, and public space design in the professional realm. Space syntax also enjoys academic influence as a theory of space and society of spatial network analysis and as a means of understanding human way-finding and spatial perception (Hillier, 1996 & 2002, Montello, 2007 & Seamon, 2007).

The space syntax tools and theories are mostly applied to the planning profession. This is particularly the case in American planning and design circles,