EDUCATION AND RESEARCH STRATEGIES: ISSUES AND CHALLENGES

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Abstract: Current era of advanced geospatial technology has brought many challenges for humankind. Geospatial Technology comprises of Remote Sensing, Geographical Information System, Global Positioning System, Database Management Systems traditionally. The list has added with Big Data Analytics, Machine Learning and Data Science. Science and Technology is one of the fields where the education and the capacity building plays very important role. The current practice of the education is basically dominated by the teachers, hugh syllabus, non-relevant knowledge and having very little opportunity for the discussions. Instead of the fixed and traditional method of teaching in practice, the need is a change to dynamic, developing, in-process and organic system of learning to shape the knowledge society. Which generates creative, innovative human being and train them to perform based on the scientific reasoning and empirical evidence. In order to develop this method, there are three important components: content, practice and cross-cutting. These are to be established as a strategy in the data savvy environment. The content may shift to more emphasis on higher order skills of constructing explanations; the practice would enhance the critical thinking and synthesis and the cross-cutting would synergize the performance expectations. Hence, the modified education and capacity building programmes advocate to move to a competency based model and the necessities motivating the better use of the technology.

The urban planning, environmental planning, industrialization, slum upgradation (mapping), land management are some of the areas where the geomatics has reached as baseline for decision making at national level. There is an emergence need to adopt multidimensional approach to examine the reasons for the growth of geomatics. The demand for geomatics-skilled manpower is observed increasing every day. The corporate sector is experiencing changes, in the early 1990s, most the GIS companies relied on outsourced business from overseas market with US, UK, Europe and other developed nations which is now changed to national projects. . 'Education in geomatics' is one of the important factors play a very important role in bridging the gap between the demand and the supply of respective manpower. A good education has direct and positive relations with the quality of the human resources generated. A measurement of the marginal productivity becomes meaningful, earns the higher GDP for the nation.

This paper is an attempt to assess the geospatial education with respect to the questions related to the core aspects, the demand and supply gap as well as the assessment of the learning pedagogy. The paper emphasizes on the standardization of the education globally and attempting towards the suggestions in the policy direction.

Keywords: Geospatial Technology; Education Pedagogy; Assessment; Capacity Building