

# Spatial Information System for the Rajiv Vidya Mission

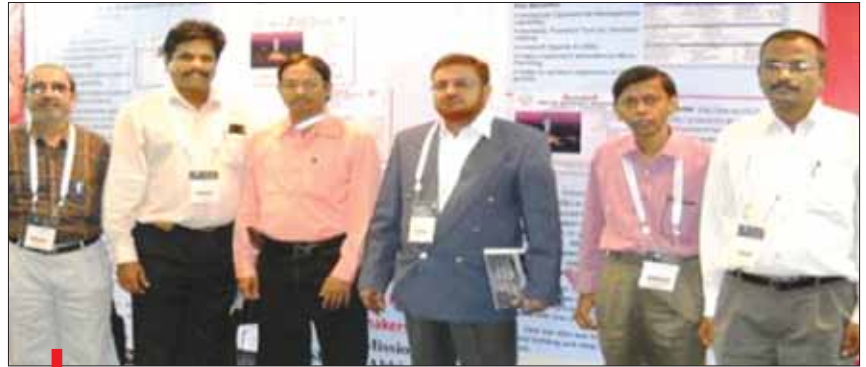
**A Spatial Information System for the 'Rajiv Vidya Mission', covering all the schools of Andhra Pradesh will be very effective in terms of planning and monitoring of the schools for the access, enrollment, retention, quality and monitoring aspects viz., integration of school infrastructure, facilities, budget & expenditure, child information, teacher information, attendance, mid-day-meal particulars, results, school complexes along with required visuals.**



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NIC team with Project Director and MIS team of SSA, A.P. at Map World Forum 2011

It has been formally inaugurated in November 2010 by Hon'ble Minister for Secondary Education, A.P. and has been showcased in several State level workshops organized by SSA and also at Map World Forum 2011 held at Hyderabad in January 2011.

Edited by **R. Gayatri**

**S**arva Shiksha Abiyan- SSA (Rajiv Vidya Mission as it is called in A.P.) is an effort to universalize elementary education by community-ownership of the existing Schooling system, which is a response to the demand for Quality based education all over the country. In order to achieve the objectives of the mission, proper planning, implementation and monitoring of activities and facilities are essential. Implementation of a Web GIS application enabled the Mission authorities to plan for the access, enrolment, retention, quality and monitoring aspects, integration of school infrastructure, facilities, budget & expenditure, child & teacher information, attendance, mid-day-meal program, results, school complexes along with required visuals, integrating the District Information System for Education (DISE). Using this applica-

tion, budget allocation to these schools can be planned and executed very well. The authorities also can ascertain the situations about the infrastructure, funds and utilization, in such a way that they can take decisions as to which schools are to be updated, upgraded or which schools can be given additional class rooms, water or electricity facility if not available so on and so forth.

NIC Andhra Pradesh State Centre has developed a Desktop GIS application on school information for Mulakalapalli Mandal in Khammam



**It is successfully conceived, developed and implemented in a record time of 10 months, which I attribute to the dedicated team work by NIC, Hyderabad and SSA**

**Dr. Mohd. Ali Rafath, IAS,**  
Project Director, Rajiv Vidya Mission,  
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district & also for Hyderabad district. A GPS survey has been done for all schools in Khammam for Mulakalapalli Mandal and for the entire Hyderabad. The schools are mapped and the available DISE database integrated. The application has been widely appreciated by the Director, School Education with a team from World Bank and the State Project Director, SSA. Seeing the potentiality of the application, the State Project Director, SSA has requested NIC to develop a web based Spatial Analysis System for entire state, covering all the 1 lakh Schools.



District Profile at a glance

### METHODOLOGY & MAJOR TASKS

A series of trainings have been given to MRPs (Mandal Resource Persons, who are also teachers), Rajiv Vidya Mission on the usage of GPS instruments and Digital cameras, enabling them to capture the school locations and visuals of the infrastructure. The GPS codes and Photograph codes are mapped to the school codes and the size of the photographs is optimised without loss of quality of the image. The data has been validated and the DISE data is mapped to the school locations for further analysis.

Mandal and Village boundaries (1:50000) data is segregated district wise and have been codified with the corresponding codes in DISE data. GPS data received from the mandals have also been validated. Validating more than 1 lakh school locations and attaching the school codes with optimizing more than 5 lakh photographs

was a gigantic task. The success of the data collection has to be attributed to the sincere efforts of the Mandal Resource Persons, who have completed the survey within 4 months for the entire state with the technical assistance from NIC, Hyderabad.

The application has been developed in a record time using ASpMAP which is very economical and cost effective compared to the other existing GIS solutions. Security audit of the application has been successfully completed and then hosted. ISRO has launched its own edition of a mapping application (Bhuvan) similar to Google Earth. Bhuvan is added as a back ground layer to the application. Bhuvan uses multi-layer information and the images are upgraded every year. The advantages of Bhuvan using as a back ground layer is to know the ground reality and natural barriers.

### MAJOR FEATURES & FUNCTIONALITIES OF THE APPLICATION

- At any point of time, user can click on any school to know about the school information, Teachers information, Child information, Budget information and visuals of the schools. Based on the visuals and other information, the planners can find out the status of the school building, class rooms, water facilities, Toilet facilities
- User can locate a school by selecting his/her Mandal and village
- All basic GIS functionalities (like Zoom In, Zoom Out, PAN) can be used any time
- Using Check boxes, user can make the visibility on /off of any layer
- Buffer method to find out the number of schools lying within a specified radius of the habitation
- Distance can be measured between schools or habitations by selecting two schools
- Query builder to find out solution for complex queries
- Online Thematic Mapping (District and Mandal wise)

- Generation of Dynamic Thematic maps
- Proximity analysis helps to meet the norms of the government in establishing new schools and/or upgrading the existing schools wherever required
- Bhuvan as a back ground layer
- Various MIS reports



School Information with visuals

Being web-enabled, it will be helpful for collaboration and data sharing among specialists, planning agencies etc. This can be effectively used in identifying the polling stations, examination centres, rehabilitation centres and so on.

The application has been demonstrated to the Hon'ble Minister of HRD and Minister of State of HRD, Minister for Primary Education, SSA & Minorities, A.P., and Principal Secretaries of various departments and other top officials who appreciated the application as a first of its kind. It has become a role model for SSA in other states and it is going to be implemented throughout the Country.

### For further information

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