

## 2. IMPLEMENTATION OF VIRTUAL LABORATORY TO IMPROVE THE QUALITY OF EDUCATION IN THE BACKWARD TALUKS OF KARNATAKA

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Budget	:	Rs. 120 Lakhs
Funded by	:	KSTePS, DST-GOK

### Background

Under the Special Development Programme (SDP) of Government of Karnataka, Department of Planning Karnataka Science and Technology Promotion Society (K-STePS), Department of Science and Technology, Government of Karnataka (DST-GOK) and Karnataka State Council for Science and Technology (KSCST), Bangalore are jointly implementing Virtual Class Rooms in 10 high schools as a pilot-study in the backward talukas of Karnataka. The objectives of these digital classrooms/ laboratories are to improve the quality and effectiveness of education by collaborative learning and teaching process through IT gadgets. The students will learn science experiments, inculcate scientific attitude and spread the same in their neighbourhood. KSTePS, Department of Science and Technology, Government of Karnataka has sanctioned Rs. 120 lakhs to implement the above programme.

In consultation with the Director, DSERT and DDPI's of district, Govt. of Karnataka, the location of schools to implement the above project have been chosen. KSCST has successfully established Virtual Laboratories in the following schools:

1. Government Pre-University College (High School section), Kokatnur, Athani (T), Belgaum (D)
2. Government Junior College (high school section), Madhugiri, Tumkur (D)
3. Government Junior College (high school section)  
Kudur, Magadi (T), Ramanagar (D)
4. Government Junior College (high school section), Harohalli, Kanakpura (T), Ramanagar (D)
5. Government Junior College for Girls (high school section), Channapatna, Channapatna (T), Ramanagara (D)
6. VCB High School, Gudadur, Sindhanur (T), Raichur (D)
7. Urdu Girls High School, Gurumitkal, Gurumatkal (T), Yadgir (D)
8. Government High School, Jahageer Gudadur, Kustagi (T), Koppal (D)
9. Government Girls High School, Kalghatgi, Dharwad (D)
10. Government High School, Adarsh Nagar, Gulbarga, Gulbarga (D)

KSCST is also interacting with the Commissioner of Public Instructions, Dept. of Education, Government of Karnataka and respective DDPI's for successful utilisation of the programme.

### Objectives:

- To support live on-line classes for distance learning and remote education
- To pool academic resources thereby improving access to advanced educational experiences

- To improve the quality and effectiveness of education by collaborative learning and teaching process.
- To hold and participate in the meetings, webinars, conferences/ symposium/ workshop, interviews etc., through video conferencing.
- To increase and improve the accessibility of educational resources to the persons with disabilities.

The digital contents of the state syllabus for science, mathematics and social science subjects for 8<sup>th</sup> to 10<sup>th</sup> standard in both Kannada and English medium was provided to the high schools. These contents were developed by Swami Vivekananda Youth Movement (SVYM) Mysore and JSS Foundation Mysore. The e-book and general knowledge details were also provided with the syllabus.

Based on the request of High School teachers of Virtual lab, KSCST is planning to procure the following packages for 10 Virtual Labs established by KSCST. The budget is also available in the project to procure the following packages:

- a) To upgrade the fundamental understanding and speaking skills in the English language in rural students from KARADI PATH Company Pvt. Ltd. Chennai for Rs. 4.0 Lakhs.
- b) 3- D Physics and Biology interactive experiments (Lab in App) and these experiments could perform any number of times by students and teachers with high level interaction on Android based platform from Intuitive Labs, Hubli for Rs. 5.46 Lakhs.

In future, KSCST will work closely with these firms for further development and improvement of the packages.

The interaction meeting was also held on 10<sup>th</sup> November at KSCST for VL school teachers. KSCST is also planning to provide training to the all teachers and students in the neighbourhood of the VL high schools.