



PSA office announces CodeIndia, an application-based programming for school students

“Today’s development has computers, data and collected information form data. So it is important to understand the development and software inside your hand held microphone and smart phone,” said Professor K VijayRaghavan Principal Scientific Adviser (PSA) to the Government of India responding to a question by Ivir a class 8 student at a Navodaya Vidyalaya in Village Jaffarpur Kalan in a remote corner of South West Delhi, on the major challenges for today’s kid when they became adults.

The dusty roads from Najafgarh in South West Delhi lead to this school which is one among the system of alternate schools for talented students predominantly from rural areas where the Office of the PSA to the Government of India announced the CodeIndia initiative with its’ inaugural pilot implementation organized in partnership with Navodaya Vidyalaya Smiti. This initiative is a two-week module on application-based programming for middle and intermediate level school students.



The use of computers and the internet has become ubiquitous and fundamental to nearly all branches of study – from business to humanities and from biology to spacecraft design. However, the lack of enough trained schoolteachers with programming skills leaves several school students uninitiated in this important field of study. The code-India initiative has been announced to yield the benefits of India’s immense demographic dividend and to prepare the future generation in this essential skill.

“If data is the fuel for the engines of artificial intelligence and machine learning, then being able to handle data puts you in the driver’s seat. CodeIndia hope is to open the doors of opportunity to our school children to learn cutting edge computer science fundamentals at as early an age as possible. This can make them future-ready in every discipline,” Principal Scientific Adviser to the Government of India Professor K. VijayRaghavan pointed out while announcing the pilot level programme and interacting with 250 enthusiastic students primarily from rural backgrounds.

Through this initiative, the students will not only learn programming skills but also gain an aptitude for building applications for diverse areas. This module is expected to be taught by a group of specialists with a high level of expertise in this area, drawn from academia as well as industry from India and across the globe.

The module will be bi-lingual, conducted in English and the regional language,, depending on the region where the CodeIndia training is being held. This approach aligns with the language mission of the office of PSA to Gol; as well as the vision of the government for democratic inclusion of the most resource constraint population of the country and providing them

scientific and educational tools for meeting the skill set needs and requirements of the 21st century.

The stated objective of CodeIndia is to build an iteratively refined model for teaching skill-based programming for application development to school students and to develop a model curriculum for the Ministry of Human Resource Development, Government of India to adapt and introduce in the school curriculum.

Shri A. N. Ramachandran, Senior Consultant, Navodaya Vidyalaya Samiti, welcome “The person who has conceive an idea of generating a model through with simple mechanism of learning coding in school level and leading science technology and innovation of country and world class researcher Dr. Prof K. VijayRaghavan, and Dr. Shailja Vaidya Gupta, Senior Adviser, Office of the Principal Scientific Adviser to the Government of India and Shri G. Arumugam, Joint Commissioner.”



Shri G. Arumugam, Joint Commissioner, Navodaya Vidyalaya Samiti, Said that “Navodaya are meeting with right spirit, children are using computers for communications. Whenever any pilot project is done, a good school is selected and we are grateful to PSA to GOI for selecting Navodaya as one of the school for this program. Whatever you learn today is to be distributed with other regions and classmates. Teachers and also join with students to learn because learning is kind of a joy.”

The experts who will be involved in the CodeIndia programme include Dr. Prem Sewak Sudhish, Faculty, Program Coordinator, Dayalbagh Educational Institute, India, Dr. Archana Sharma, Senior Staff Scientist, CERN, Geneva, Dr. N Apurva Ratan Murty, Postdoctoral Research Associate, Massachusetts Institute of Technology, USA, Mr. Kenneth Cecire, QuarkNet National Staff, University of Notre Dame, France, Ms. Pratiksha Garg, Software Developer, Tata Consultancy Services, India and Ms. BingiBinathi, Research Scholar, Dayalbagh Educational Institute, India.

The programme will include sessions on introduction to computers and internet, creating cartoons, introduction to creative computing using scratch, creating websites, MS Word, MS Excel, MS PowerPoint, Google Docs, GoogleSheets, CERN CMS data workshop, Python language, built in functions and modules as well as building projects.

