Coding And Robotics Education in Schools Scheme – 2021

EXPRESSION OF INTEREST

Notice inviting expression of interest (EOI) from Major Partners and Sponsors for Coding And Robotics Education in Schools Scheme – 2021 (CARES).

CARES - 2021 is requesting information from individuals/ entities/ organisations able to serve as partners and sponsors or to provide operational or Infrastructural support for CARES scheme 2021

This EOI document describes the scope, requirements and process for submission of information.
The last date for submission of the EOI is 31st October 2021

Introduction

1. Computational thinking (CT) is recognized as one of the key 21st century skills that involves understanding a problem, designing a solution and expressing it in a form that a human or a machine can execute. The recently unveiled National Education Policy 2020 by the Ministry of Education, GoI, recommends that mathematical and computational thinking will be given increased emphasis through a variety of innovative methods, including the regular use of puzzles and games that make mathematical thinking more enjoyable and engaging. It thus becomes paramount that the students of the state of Goa are trained in these essential skills to mitigate the demands of the digital age.

2. A principal goal of school education is to prepare the child for participation in the world outside, interrogate it, and contribute to changing and shaping the world. Schools are the launchpads for children to take the big jump in creativity & imagination and where the art & science of investigative inventive interrogative thinking is inculcated. Language, Mathematics, Science and Social studies form the core of school curricula world over, as they provide the basic means for studying the world, and in changing it.

3. Computing is ubiquitous and people from every walk of life will need to be familiar with computing in some form or the other. This will give rise to a huge demand for computing skills leading to a talent shortage unless computational thinking is introduced in schools immediately.

4. Children need to be taught not only to be socially responsible citizens but also train them to be creators, inventors and adopters of technology. It is therefore imperative to teach computing, which promotes problem solving, computational thinking and critical reasoning skills, at par with Mathematics and Sciences and in addition, enthuses children to explore their creativity.

5. In the state of Goa, many schools teach students use of word processors and presentation applications as well as some programming languages such as Lego, Scratch, C++ or Java. Computational thinking is wider in scope and involves understanding a problem, designing a solution and expressing it in a form that a human or a machine can execute. Many countries such as the US, UK, Singapore have adopted a national computing curriculum. Our state should not lag behind, and should take all the steps to implement Computational / Design Thinking in its school education system as an essential and necessary aspect of overall child-development.

Objectives and scope of this Expression of Interest (EOI)
An overview of the Goan Educational and IT Sector:

1. **Number of Educational Institutions in Goa in the State of Goa – as of Aug'2021:**

Level	Number of Schools	Number of Students
Primary	1,157	98,520
Middle	58	70,938
High School	416	70,992
Higher Secondary	104	36,777
Total	1,735	2,77,227

2. GDP of Goa

Goa has the highest GDP per capita income among 33 Indian states and union territories. GSDP Per capita of Goa is above three times India's average at ₹ 520,030 during 2019-20.

In 2020, GDP for Goa was 8.15 million INR, lakhs. GDP of Goa increased from 4.24 million INR, lakhs in 2011 to 8.15 million INR, lakhs in 2020 growing at an average annual rate of 8.19%.

3. Educational Sector Budget

Goa has allotted ₹3,038 Crores to the education sector this year which is a per capita allotment of ₹16,877. Kerala, which is widely regarded to have the best educational infrastructure and system in India, has allotted ₹20,862 Crores which is a per capita allotment of ₹5960.

4. Information Technology Institutions

Goa houses 8 institutes offering courses like B.E/ B. Tech, M.E/ M. Tech, B.E. in Computer Science Engineering, and B.E/ M.E in Information Technology. This also includes the prestigious Birla Institute of Technology & Science, (BITS Pilani), Goa Campus.

5. Information Technology Industry

- Despite being a small state and a late starter in the IT industry, Goa is ideally placed to capitalise on the opportunities available in the sector. Goa is one of the most literate states in India, with a literacy rate of over 88.7%; most Goans are conversant with the English language, which is the lingua franca for the IT industry.

- Goa has more than 250 IT companies in Goa out of which 70 percent of the companies are in the startup space. IT companies based out of Goa are developing tourism solutions, logistics solutions, transport solutions or eCommerce solutions for client's abroad. Goa has a high broadband penetration as compared to the average broadband penetration in India.

- Goa has a very robust manufacturing setup in the state, which contributes to 25-30 percent to the GDP. Goa's key electronic manufacturing companies include Siemens, IFB, CommScope and Titan. These firms are unicorns in their own field. The Government of Goa has

earmarked about 50 acres of land for the IT park at Chimbel which is about six km from Panaji and 150 acres of land at a place called Tuem which is in North Goa.

The objective of this EOI is to identify organisations with capability and interest to participate actively
as Major Partners and Sponsors, or to provide operational or Infrastructural support for the CARES Scheme – 2021.
Partners and Sponsors are sought to provide support to the CARES Scheme – 2021 through a number of ways:

1. Partnering with CARES Scheme – 2021 Scheme to implement the scheme at the ground level and co-ordinate mini-launch events while adopting themes that align with the aims of the CARES Scheme – 2021 and Partner's brand.

2. Supporting CARES Scheme – 2021 through major sponsors to allow CARES Scheme to grow the scale of the initiative and deliver a higher quality experience.

3. Partnering with CARES Scheme – 2021 to provide software and hardware solutions in line with the requirements of the scheme.

4. Partnering with CARES Scheme – 2021 to provide technical support and assistance teams.

5. Work with CARES Scheme – 2021 to deliver in-kind benefits to the initiative.

Furthermore, we are seeking partnerships from agencies and individuals that can provide support in the following areas:

- Web Portal
- Learning Management Solution
- Communications
- Social Media coverage
- Technology partners
- Robotics components and kits

- Consultancy
- Content providers
- Video content creation
- Lesson plan creation
- Design services
- Event Management services
- Competition platforms
- Hackathon organizers
- Knowledge partners
- Cloud Hosting services
- Individual Experts in related field
- CSR fundraising agencies
- Pedagogical expertise
- Mid-career Pathways in Coding and Robotics
- Computational and design thinking for rural development and innovation

Any other agency or individual not specified in the indicative list can also apply.

Partners and Sponsors will receive benefits which will include some or all of the following:

- Acknowledgement on scheme marketing material and collateral

- Acknowledgement through speaking opportunities or official speeches

- Signage and branding opportunities

- VIP event experiences.

- Acknowledgment on scheme press releases.

Every brand and event partnership presents a unique opportunity which can be tailored to suit the partner's objectives, targets and capacities. Each opportunity will be considered for its unique benefits and suitability. Potential Partners/Sponsors should consider their objectives in partnering with the

CARES Scheme – 2021 as well as their potential partnership capacity prior to making contact.

Information collected through this EOI will be the basis for issuing a Request for Proposal or another procurement mechanism. Following an evaluation process, CARES Scheme – 2021 intends to implement framework agreements with one or more Partners and Sponsors.

What kind of partners does CARES Scheme – 2021 request information from?

The sponsor may be a non-profit or for-profit organisation, or an individual that is looking to align itself with the CARES Scheme – 2021 and believes in the goals and the vision of the initiative.

Selection Criteria for all Events

The selected organization:

- Is not a Tobacco/ Alcohol company or related brands

- Promotes core values which align with those of the CARES Scheme – 2021

- Has a brand that positively aligns with the state of Goa for which the Expression of Interest is lodged

- Has a consistent ethical base of its operations in the past as well as present
- Has an appetite to actively participate in the CARES Scheme 2021 activities in any and all forms
- Has an inherent alignment in investing in future – to inculcate and invigorate our future generations to be innovative, inventive, interrogative and thereby enthuse in them the hunger to envisage, design, develop, deploy artefacts which add value to the general well-being of the society

The CARES Scheme – 2021 may make direct approaches to potential partners or sponsors as a part of this expression of interest process and

reserves the right to proceed with the initiative without appointing a partner or sponsor.

Information requested (if applicable)

Please provide information on the following:

• The geographical reach of your organization

• The experience in partnering/ sponsoring or supporting work in related initiatives.

• In which countries/states have you sponsored/ Partnered such initiatives?

• Track record of Partnership/ sponsorship during the last five years

• If your organization were given the role as sponsor/partner for CARES Scheme – 2021, what possible responsibilities would you and what possible contributions could you make?

Submission of information

Please submit informationlatest by 31st October in PDF format as per the format provided as Annexure to Project Director, Project Management Unit, Directorate of Technical Education, Porvorim, Goa. It is also requested to submit the details via online form https://forms.gle/eWB55inDQLG1H4X96

The information submitted will not be shared beyond the purview of the scheme.

Technical and administrative questions

Technical and administrative questions about this EOI should be directed to pmucares-dte.goa@nic.in.