"One Earth · One Family · One Future"







# Regional Conference on STEM Education

## (RCSE-2023)

Hybrid Mode June 10, 2023





Regional Institute of Education NCERT, Bhopal, M.P., India

# Context

STEM is an educational approach to learning that articulates Science, Technology, Engineering, and Mathematics for guiding student's inquiry, dialogue, logical thinking and critical thinking. With a visionary new education policy 2020, and the complexities of the new normal after the COVID 19 pandemic, the teaching and learning processes are undergoing change. To keep pace with innovative changes happening worldwide academicians and policymakers have felt the necessity of STEM education. Expectedly, our students will need to build STEM readiness for their successful career.

#### **STEM Education provides opportunities:**

- O To think imaginatively using new ideas.
- O To nurture innovative and creative ideas.
- O To gain hands-on learning.
- O To take ownership of their learning experiences.
- O To work collaboratively with others on new areas of learning.
- To understand the linkages between Science, Technology, Engineering and Mathematics associated with the development of scientific theory, laws and principles.

# **Objectives**

- > To promote research and experience sharing on STEM.
- > To provide a platform to discuss integrated approaches in STEM.
- > To discuss STEM strategies across formal and informal contexts.
- To study STEM integration and its implications for academia, business, industry and society.
- > To share and discuss innovative practices and research initiatives that advance STEM education.
- > To present approaches through, strategies and innovative activities to engage all students in meaningful learning in STEM.

# Themes and subthemes

#### Perspectives for integration of STEM in school education

- STEM vs traditional Approaches.
- STEM and its linkages with the multi disciplinary approach.
- STEM education in context of G20.
- STEM and Indian Knowledge System.

#### Way Forward: Shaping schools for today and tomorrow

- Creativity and innovation through STEM.
- Role of Atal Tinkering Labs in promoting STEM education.
- Capacity Building of Teachers in STEM Education.
- STEM and coding.
- Effectiveness of STEM in building career pathways.

#### STEM education and inclusive learning culture

- STEM approach to reach learners from marganilised sections.
- Virtual Education through STEM.
- Use of low cost no cost material to promote STEM education.
- Developing strategies and resources for children with special needs.

#### Practices of STEM education at regional and national level

- Project based learning approach in STEM education.
- Problem based learning approach in STEM education.
- Sustainable Development Goals (SDGs) and STEM Education.
- Researches in STEM and their educational implications.

#### Challenges, issues and concerns in STEM approach for assessment and learning

- Student Motivation and Gender gap.
- Challenges for Teachers in STEM Education.
- Strategies for assessment in STEM learning environment.
- Improving student performance through STEM education.

### About organizing institute

The Regional Institute of Education, Bhopal is one of the constituent unit of NCERT, New Delhi, India. It is located on Shyamla Hills in Bhopal, the capital city of Madhya Pradesh. The institutes caters to the needs of school education and teacher education of the states namely Chhattisgrah, Goa, Gujarat, Madhya Pradesh, Maharashtra, and Union Territories of Dadra and Nagar Haveli and Dama and Diu.

The institute offers pre-service Teacher Education Programs such as four year integrated B.Sc B.Ed., B.A. B.Ed., Two year B.Ed., Three year integrated B.Ed. M.Ed, Two year M.Ed; and a blended Diploma Course in Guidance and Counselling (DCGC). Further, the institute offers in-service training programmes for Teachers, Teacher educators and state educational functionaries of western India. The institute has a Demonstration Multipurpose School (DMS) on its campus for trying out innovative practices in School education and Teacher education.



#### Call for papers

Accommodation

Research papers are invited from Teachers, Teacher educators, Academicians, Educatioonist, NGOs and the functionaires working in the area of STEM Education. Abstract of the paper should not be more than 250 words and full length paper in about 2000-3000 words duly typed in MS-Word, font size 12 (Times New Roman). References should be given in APA style. The paper must contain title, name and affliation of the author, contact number and email address. All papers need to be mailed to rcse2023bpl@gmail.com.

**Publication:** Selected papers will be published in conference volume with ISBN and RIE Bhopal journal with ISSN

Mode of Conduct: Blended mode both offline and online presentation will be allowed.

Venue: Regional Institute of Education, Shyamla Hills Bhopal, M.P..

TA will be paid as per entitlement and limited to 3AC of railways on production of tickets to the participants (only one author) whose papers are selected and invited for presentation at the conference.

For outstation participants accommodation may be arranged on prior request in guest houses of the institute.

### **Registration:** All participants and presenters need to register through the link given below <u>https://forms.gle/JnQeYZ6SX7AVviHn7</u> *No registration fee has to be paid to participate in the conference.*

### **Chief Patron**

Prof. Dinesh Prasad Saklani Director National Council of Educational Research and Training (NCERT), New Delhi.

#### Patron

Prof. Jaydip Mandal Principal Regional Institute of Education, NCERT, Bhopal.

# **Conference Coordinator**

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#### **Organizing committee**

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