

included in the conference proceedings released with ISBN.

#### REGISTRATION FEES

Participant Category	Indian	Foreign
Delegates	Rs.1000	20 USD
Research Scholars	Rs. 800	15 USD
Students	Rs. 500	10 USD
Co-author(s) also should pay the same.		

DD Should be drawn in favour of "The Organizing Secretary, STEM-2024, Department of Education, Alagappa University, payable at Karaikudi-3.

Authors can also transfer money to the  
Ac. No: 7641849636, UPI ID: acu@indianbnk



#### ACCOUNT DETAILS

Name : Organizing Secretary, STEM Education 2024  
Account No : 7641849636  
Bank : Indian Bank  
Branch : A.C. Campus, Karaikudi  
IFSC Code : IDIB000A008



#### IMPORTANT DATES:

Submission of Full Paper : 28.01.2024  
Communication of Acceptance : 29.01.2024  
Registration : 30.01.2024

Note: Conference presentation will be in a hybrid mode.  
(Prefer Either Online (or) Offline)

Registration link : <https://forms.ale/AtH8isSaPptw1B828>

#### SEMINAR KIT AND REFRESHMENT

Lunch, High Tea and Seminar Kit with the Conference Proceeding (e-copy) will be given to all the delegates and no TA and DA will be provided.

#### ACCOMMODATION

Accommodation will be arranged in the nearby hotels on Prior intimation and extra payment. Participants can also make their own arrangement for accommodation at hotels available in Karaikudi. The room rent varies from Rs.600/- to Rs.3000/- per day.

#### HOTELS IN KARAISKUDI

Hotel Subhalakshmi Palace: +9182200 13753, Hotel Sathguru:04565-239400, Golden Singar Hotel:04565-235521/2/3, The Abirami Residency:04565-232799, Hotel Nachiappa Palace: 04565 -230 077 and Hotel Subam Palace: 04565 - 226946.

#### HOW TO REACH

Alagappa University is located in Karaikudi which is (1km) from Railway Station and (1km) from New Bus Stand. The nearest Airports are Tiruchirappalli (80km) and Madurai (90km).

#### ORGANIZING COMMITTEE

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**ALAGAPPA UNIVERSITY**

(A State University Established in 1985)

Accredited with A+ Grade by NAAC (CGPA:3.64) in the Third cycle  
and Graded as Category - I University by MHRD - UGC

Karaikudi - 630003, Tamil Nadu, India



A Two-Day International Conference on

**STEM EDUCATION:  
ISSUES AND CHALLENGES (2024)**

Date : 1<sup>st</sup> & 2<sup>nd</sup> February 2024  
Venue: Convocation Seminar Hall



Organized by

**DEPARTMENT OF EDUCATION  
ALAGAPPA UNIVERSITY**

Karaikudi - 630 003.



## ABOUT THE UNIVERSITY

Alagappa University has emerged from the galaxy of institutions initially founded by the great philanthropist and educationist Dr. RM. Alagappa Chettiar. The University has 45 Departments, 9 centres and 2 constituent colleges on its campus and 46 Affiliated Colleges located in the Sivagangai and Ramanathapuram revenue districts as part of the University. Alagappa University, Karaikudi has been accredited with A+ Grade by NAAC (CGPA: 3.64) in the third cycle of accreditation and also the first State University that obtained the A+ status in Tamilnadu. The University has been graded as Category-I University by MHRD-UGC and occupies 2nd place out of the 12 State Universities with Category-I Status in the Country. It is the First State University in Tamil Nadu obtained the Category-I Status. The University has received Rs.100 Crore under RUSA 2.0 grant based on the NAAC score in 2017. The University has been accorded the 20<sup>th</sup> Place in the QS Ranking-2019 in India, 104<sup>th</sup> among BRICS Countries and 216<sup>th</sup> among Asian Country Universities. The University secured 30<sup>th</sup> position among the universities in the National Institutional Ranking Framework (NIRF) 2018 ranking. The University has secured Fourth position in Swachhta Ranking 2018 for the cleanest Higher Educational Institutions in the Country under the category of Government Institutions. The University has obtained ISO 9001-2015 certification based on the quality measures in higher education. The University has bagged Indian Association for the Blind (IAB) Silver Zone Award for outstanding excellence and amazing contribution to the empowerment of persons with Visual Challenges. The University's motto is "Excellence in Action" and the University keeps before it the vision of excellence in all sphere of its action.

## ABOUT THE DEPARTMENT

The Department of Education established in the year 1986 has been serving to fulfil the major objectives of higher education providing equitable access to all social and economic categories of the immediate community, especially needy. While serving, it has been striving to maintain quality by adopting national priorities. The Department, within a short span of its establishment has ascended to the greater heights through its competent and committed teaching and supporting staff with the ample support of the university administration. This department has produced more than 400 Ph.D. degrees and completed more than 100 research projects. The department had been a nodal agency to the SSA, RMSA, SCERT, MHRD for various activities and generated funds from UGC, ICSSR, BVLN, DST and other International and National Funding Agencies. The full time doctoral and post-doctoral scholars are working in this department with the UGC-fellowship, National fellowship and university fellowships. The thrust areas of the department are intelligence, cognitive science, teacher education, constructivism, science process skills, inclusive education, educational technology, environmental education and instructional techniques etc. The PTV of NAAC 2004 suggested that the Department of Education may be elevated into a centre for Excellence in Educational Research.

## ABOUT THE CONFERENCE

In a world driven by rapid technological advancements, STEM education encompassing Science, Technology, Engineering, and Mathematics plays a pivotal role in shaping future generations and driving innovations. It equips learners with critical thinking, problem-solving, and analytical skills essential for success in an increasingly technology-driven world. The STEM education gives students skills that make them more employable and accelerate their preparedness to meet the labour demand of the present situation. There is a misconception that STEM education meant for science, Technology, Engineering and Mathematics subjects only. Indeed, it demands that each subject should have the four aforementioned concepts as their integral part because each component brings a valuable contribution to a well defined education. The Teacher Education of 21<sup>st</sup> century is enshrined with more of technological concepts along with the science and engineering capsulation. Digging deeper in to the relationship of these STEM components with that of the teacher education of current situation, an attempt has been made to explore the things hidden among the stake holders through the conference. The conference aims to address disparities in STEM education access, promote innovative teaching methodologies, integrate STEM disciplines seamlessly, offer professional development for educators, improve assessment methods, and encourage global collaboration to enhance STEM education on a local, national, and global scale.

## OBJECTIVES

- ❖ To examine and address the disparities in access and participation in STEM education, with a focus on gender, socioeconomic status, and under represented minority groups.
- ❖ To provide a platform for educators, researchers, and practitioners to share and develop cutting-edge teaching methodologies that foster engagement and passion for STEM subjects.
- ❖ To explore strategies for seamlessly integrating science, technology, engineering, and mathematics with education, providing students with a holistic understanding of these interconnected disciplines.
- ❖ To offer professional development opportunities, mentorship programs, and resources that equip educators with the skills and knowledge to deliver high-quality STEM instruction.
- ❖ To discuss and implement innovative assessment methods that accurately measure students' conceptual understanding and practical skills in STEM subjects.
- ❖ To gain insights from diverse international approaches to STEM education, enabling participants to incorporate successful practices into their own educational contexts.
- ❖ To contribute to the development of evidence-based policies and practices that support and enhance STEM education on a local, national, and global scale.
- ❖ To provide a platform for the dissemination of cutting-edge research in STEM education with selected conference papers considered for publication in a special issue, thereby advancing the field.
- ❖ To ensure that the discussions, collaborations, and strategies

generated during the conference lead to tangible and sustainable improvements in STEM education worldwide.

## THEMES

### 1. Equity and Inclusion:

- Gender Disparities in STEM Education
- Socioeconomic Inequality and STEM Participation
- Strategies for Promoting Diversity in STEM

### 2. Innovative Pedagogical Approaches:

- Project-Based Learning in STEM
- Inquiry-Based Learning and Critical Thinking
- Technology-Enhanced Learning

### 3. Integration of STEM Disciplines:

- Interdisciplinary Approaches in STEM Curriculum
- Promoting Maths through STEM Education
- The Role of Arts and Humanities in STEM Integration

### 4. Professional Development for Educators:

- Mentorship and Coaching Programs for STEM Education
- Continuous Learning and Teacher Support
- Empowering Educators to Integrate Technology Effectively

### 5. Assessment and Evaluation in STEM:

- Formative Assessment Strategies in STEM
- Authentic Assessment Methods for Practical Skills
- Overcoming Challenges in Assessing Creativity and Innovation

### 6. Global Perspectives and Cross-Cultural Insights:

- Comparative Studies of STEM Education Systems Worldwide
- Cross-Border Collaborations in STEM Education

### 7. Digital Literacy and Technology Integration:

- Digital Literacy as a Fundamental Skill in STEM Education
- Leveraging Educational Technology for Effective STEM Instruction
- Overcoming Digital Divides through STEM Education

### 8. Student Engagement and Motivation:

- Strategies to Inspire STEM Education
- Encouraging Under represented Groups to be employable through STEM Education
- Experiential Learning and Real-World Applications for employability

### 9. Teacher Empowerment and Well-Being:

- Addressing Burn out and Stress through STEM curriculum
- Work-Life Balance in STEM Education
- Building Supportive Communities for STEM Teachers

### 10. Policy Development and Advocacy:

- Advocacy for STEM Education Funding and Resources
- Policy for Inclusive STEM Education
- Shaping National and International Agendas through STEM

### 11. Integration of STEM Education in to Sports Science:

- Innovations in Sports Technology
- Promoting Health and Wellness through STEM Education
- Interdisciplinary Research in Sports and STEM Education

## CALL FOR PAPERS

Thematic and Research Papers in a soft copy not exceeding 5 pages (Times New Roman Font, 12 font size, 1.5 Line Space, A4-Size Standard) along with the abstract should be reached to the organizer on or before January 28<sup>th</sup>, 2024. All the papers will be