



Notice for the PhD Viva Voce Examination

Ms Kavitha R N, Registration Number: 2270037, PhD Scholar at the School of Education, CHRIST (Deemed to be University) will defend her PhD thesis at the public viva-voce examination on Thursday, 25 June 2026 at 11.00 am in Room No. 044, Ground Floor, R&D Block, CHRIST (Deemed to be University), Bengaluru - 560029, Karnataka, India.

- Title of the Thesis** : **Student and Teacher Constituents Influencing STEM Career Interest and Subjective Wellbeing among Students**
- Discipline** : **Education**
- External Examiner - I** : **Dr G R Angadi**
Professor
Department of Education
Central University of Karnataka
Kadaganchi, Aland Road
Kalaburagi - 585367
Karnataka
- External Examiner - II** : **Dr Mrunalini Talla**
Professor
Department of Education
Osmania University
Hyderabad - 500007
Telangana
- Supervisor** : **Dr Jacqueline Kareem**
Associate Professor
School of Education
CHRIST (Deemed to be University)
Bengaluru - 560029
Karnataka

The members of the Research Advisory Committee of the Scholar, the faculty members of the Department and the School, interested experts and research scholars of all the branches of research are cordially invited to attend this open viva-voce examination.

Registrar (Academics)

Place: Bengaluru
Date: 09 June 2026

ABSTRACT

This study is situated within the growing global emphasis on STEM (Science, Technology, Engineering, and Mathematics) education as a key driver of innovation, technological advancement, and economic development. In the context of Kerala, where educational achievements are high yet STEM career participation requires further strengthening. Understanding the factors influencing students' career pathways and subjective wellbeing has become increasingly important. The present research examines the complex and dynamic interaction between students and teachers in shaping individuals' pathways toward STEM careers and their associated sense of subjective wellbeing. STEM education has become increasingly important in the contemporary knowledge-driven economy, as these fields contribute significantly to technological advancement, innovation, and national development. STEM disciplines encompass a broad range of areas, including Computer Science, Engineering, Biology, and Data Analytics, offering diverse opportunities for individuals to develop skills that support scientific progress and social growth. From the students' perspective, multiple factors influence their interest in pursuing STEM related careers. Students' attitudes towards math and science subjects, their level of classroom engagement, the effective integration and use of technology in learning, and the development of 21st-century skills such as critical thinking, collaboration, communication, and problem-solving are considered significant determinants of their career aspirations. These factors collectively shape students' perceptions of STEM fields and influence their motivation to pursue further education and careers in these domains. Teachers also play a crucial role in fostering students' interest in STEM and promoting their subjective wellbeing. Teachers' instructional practices, perceived teaching efficacy in math and science, and their leadership within the classroom environment can significantly impact students' academic engagement, confidence, and career interests. Supportive teaching practices, positive classroom climates, and effective guidance from teachers can contribute not only to students' academic development but also to their subjective wellbeing. The primary objective of this study is to identify and analyse both student-related and teacher-related factors that influence STEM career interest and subjective wellbeing through the development and empirical testing of a conceptual model. To achieve this objective, the study adopted a mixed-method cross-sectional explanatory research design. The quantitative component involved the collection of survey data from approximately 1300 school students from selected schools in South Kerala. Various statistical techniques, including correlation analysis, multiple regression, mediation analysis, and path analysis, were employed to examine the relationships among the variables and to test the proposed conceptual framework. In addition, the qualitative component of the study involved semi-structured interviews with teachers. The data were analysed using thematic analysis to gain deeper insights into teachers' perspectives on STEM education, classroom practices, and student wellbeing. The findings of this study are expected to contribute to improved educational practices by enhancing STEM engagement, strengthening teacher interventions, and supporting strategies that promote both academic development and subjective wellbeing of students.

Keywords: STEM education, STEM career interest, subjective wellbeing, STEM attitude, teaching efficacy, teacher leadership.

Publications:

1. Radha Nair, K., & Kareem, J. (2025). Mediating role of Math and Science Engagement in the relationship between attitude toward stem education and subjective well-being of adolescents. *Science Education International*, 36(1), 48–56. <https://doi.org/10.33828/sei.v36.i1.5>
2. Radha Nair, K., & Kareem, J. (2025). The influence of stem attitude, 21st century skills, and technology use on student outcomes: A mediation model analysis. *Journal of Information Technology Education: Research*, 24, 029. <https://doi.org/10.28945/5621>