

Job Title

Research Associate – Learning Impact and XR Education (Gyan Dhara Project)

Location

EILab, Department of Design, IIT Guwahati

About the Project

Gyan Dhara is an immersive learning platform designed to improve conceptual understanding of science and mathematics among school students through experiential XR-based modules. The project aims to generate strong empirical evidence on learning outcomes and support large-scale deployment through government and CSR partnerships.

The role focuses on designing and conducting impact evaluation studies, analyzing learning outcomes, and producing high-quality research publications.

Role Overview

The Research Associate will be responsible for designing and executing learning impact studies, managing data collection in school environments, performing quantitative and qualitative analysis, and independently leading research publications in leading HCI, education, or XR venues.

Key Responsibilities

Research Design and Impact Evaluation

- Design experimental studies to evaluate learning outcomes of XR-based educational interventions
- Develop pre/post assessments and learning outcome measurement instruments
- Design surveys and evaluation frameworks for impact assessment
- Prepare study protocols and research documentation

Field Study Execution

- Coordinate impact studies with partner schools
- Administer tests, surveys, and evaluation instruments
- Manage data collection logistics
- Ensure ethical handling of participant data

Data Analysis

- Perform statistical analysis of learning outcomes
- Analyze quantitative and qualitative data
- Generate visualizations and structured reports of study findings
- Calculate effect sizes, learning gains, and retention metrics

Research Publications

- Independently lead the writing of research papers based on project findings
- Identify suitable top-tier journals and conferences for submission
- Take primary responsibility for preparing manuscripts for submission
- Develop publication strategies aligned with project goals

Coordination and Reporting

- Work with the design and development team to translate findings into product improvements
- Prepare technical reports and impact summaries for stakeholders
- Assist in preparing research documentation for grants and institutional reporting

Required Qualifications

Essential

- Master's or PhD in one of the following:
 - Human Computer Interaction
 - Cognitive Ergonomics / Human Factors
 - Educational Technology
 - Learning Sciences
 - Psychology
 - Related interdisciplinary fields

Required Skills

- Experience designing and conducting empirical studies
- Strong understanding of experimental design and evaluation methods
- Experience with statistical analysis (R / Python / SPSS or equivalent)
- Demonstrated ability to write research papers or technical reports
- Ability to independently manage research tasks

Preferred Qualifications

- PhD (completed or near completion) in HCI, cognitive ergonomics, human factors, or related areas

- Prior publications in peer-reviewed conferences or journals
- Experience conducting user studies or educational evaluations
- Experience with XR/VR systems (preferred but not mandatory)
- Experience with mixed-method research (quantitative + qualitative)

Desired Attributes

- Strong research rigor and attention to detail
- Ability to independently drive research outcomes
- Interest in educational impact and applied research
- Ability to work in interdisciplinary teams

How to Apply

Interested candidates should send:

- CV
- Brief statement of research experience
- List of publications (if any)
- Sample paper or thesis (optional but preferred)

to:

keyur@iitg.ac.in

Subject line:

Application – Research Associate (Gyan Dhara Impact Study)