Mrs Vishaliney Pirathap
Lecturer

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Google Scholar: Google Scholar (13 citation)
ResearchGate: ResearchGate (15 citation)
Scopus ID: 57222357412

RESEARCH PROFILE

Lecturer and early-career researcher specialising in artificial intelligence in education, with research experience in AI-enabled assessment, learning analytics, and educational systems. Research interests focus on Generative AI and its implications for teachers' curriculum practices, assessment integrity, workload, and professional judgement. Current work examines the socio-technical and governance dimensions of educational AI, including how automation reshapes assessment design and institutional decision-making. Author of multiple peer-reviewed publications across computer science and education.

RESEARCH INTERESTS

- Governance of Generative AI in education
- Assessment integrity and institutional decision-making
- AI-enabled educational systems
- Teacher judgement, workload, and curriculum practices
- Responsible and ethical AI in higher education

EDUCATION

MSc in Information Technology (Final Semester) **Jun 2024 – Jun 2026**
Sri Lanka Institute of Information Technology (SLIIT), Malabe, Sri Lanka
All coursework completed; research project and final viva in progress
Expected completion: July 2026 (2nd week)

BSc (Hons) in Information Technology – Second Class **Feb 2017 – Jan 2021**
Sri Lanka Institute of Information Technology (SLIIT), Malabe, Sri Lanka
Weighted GPA: 3.07 / 4.00
Final Year Research: "Smart Mirror for Autistic Education – Aliza" (Grade: A–)

WORK EXPERIENCE

Lecturer, SLIIT Northern UNI – *Jaffna, Sri Lanka* **Apr 2025 – Present**
Assistant Lecturer, SLIIT Northern UNI – *Jaffna, Sri Lanka* **Jul 2023 – Apr 2025**

- Designed and coordinated undergraduate modules, including assessment design, exam paper preparation, moderation, and quality assurance
- Integrated AI-supported tools into lesson planning and assessment design aligned with outcome-based education (OBE) and institutional requirements
- Supervised undergraduate projects involving AI-enabled educational applications
- Contributed to curriculum review and programme validation activities

Temporary Assistant Lecturer, University of Jaffna – *Jaffna, Sri Lanka* **Oct 2021 – Jul 2023**

- Delivered undergraduate lectures in programming and computing fundamentals.
- Designed and assessed laboratory work and end-semester examinations.
- Supervised student software projects and supported foundational system design skills.

Associate Software Engineer, Unicom SD (Pvt) Ltd, Jaffna, Sri Lanka   **May 2021 – Oct 2021**

- Contributed to the development of enterprise software systems in collaborative, production environments
- Worked with cross-functional teams on system design, testing, and deployment

PUBLICATIONS

Conference Publications

- **Pirathap, V.,** Arunpirakash, S., Arunprakash, N., Ganeshanathan, K. (Jun 2025). Assessing Programming Skill Development Through AI-Based Bloom's Taxonomy Mapping in Educational Coding Platforms. 2nd International Research Conference in Education (IRCE 2025). Link.
- P. Vishaliney, "A Multi-Language Cognitive And Structural Complexity Analysis And Optimization Framework," 2025 10th International Conference on Information Technology Research (ICITR), Colombo, Sri Lanka, 2025, pp. 1-6, doi: 10.1109/ICITR69413.2025.11353540 Link.
- **Pirathap, V.,** Chanaka, S., Pemasiri, Mathurantha, K., Yatigammana, N. (Jul 2025). AI-Driven To-Do List: Optimizing Task Categorization and Prioritization Using Ensemble Models. Annual Research Conference of SLIIT CITY UNI (ARCSCU 2025), SLIIT City Uni. Link.
- **P. Vishaliney,** A. Sangeetha and S. Rajapaksha, "AI-First Operating systems: Rethinking OS Architectures for Machine Learning Workloads," 2025 9th International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), Ankara, Turkiye, 2025, pp. 1-5, doi: 10.1109/ISMSIT67332.2025.11267921 Link.
- **G. Vishaliney ,** R. S. Najeeb, J. Uthayan, R. P. Lojini, J. Alosius and A. Gamage, "Gamified Smart Mirror to Leverage Autistic Education - Aliza," 2020 2nd International Conference on Advancements in Computing (ICAC), Malabe, Sri Lanka, 2020, pp. 428-433, doi: 10.1109/ICAC51239.2020.9357065. Link.

Accepted / In-Proceedings

- **Pirathap, V.,** Arunprakash, N., Arunpirakash, S., "AI-Driven Cognitive Assessment in Programming Education: A Bloom's Taxonomy-Aligned Framework for Skill Development,"17th International Conference on Sustainable Built Environment (ICSBE 2026), Kandy, Sri Lanka. (Accepted – in proceedings)
- **Vishaliney, P.,** "An Adaptive Maintainability Complexity Score for Multi-Language Software Systems," International Conference on Information and Communication Technology (ICICT 2026), London, United Kingdom. Springer Lecture Notes in Networks and Systems (LNNS). (Accepted – in proceedings)

RESEARCH PROJECTS

SpeechBuddy: AI-Powered Gamified Speech Therapy Application

Ongoing Research Project (MSc)
- Investigating the use of Generative AI–supported systems for speech therapy and inclusive educational contexts, with attention to engagement, feedback, and ethical considerations.
- Focus on improving engagement, pronunciation accuracy, and adaptive feedback through intelligent speech analysis.
- Research explores the potential of AI-assisted therapy tools in supporting inclusive and accessible educational and clinical interventions.

Smart Mirror for Autistic Education – Aliza

Undergraduate Final Year Research Project
- Designed and implemented an intelligent smart mirror using facial expression and emotion recognition to support autistic children in daily routines and learning activities.
- Evaluated an AI-enabled smart mirror system to support autistic children's learning routines and engagement, resulting in a peer-reviewed IEEE conference publication.
- Project was a Finalist at NBQSA 2020 and resulted in a peer-reviewed IEEE conference publication.

RESEARCH ACHIEVEMENTS / AWARDS

Finalist – NBQSA Awards 2020
- Recognized for the project "Smart Mirror for Autistic Education – Aliza" under AI and accessibility innovation.

RESEARCH & TECHNICAL SKILLS

Research Areas & Methods
- Artificial Intelligence in Education.
- Governance and use of Generative AI in educational systems.
- AI-based cognitive assessment and learning analytics.
- Educational data analysis and model evaluation.
- Applied AI for educational and assistive technologies.

Technical Skills
- Artificial Intelligence (conceptual & applied): supervised learning, model evaluation, responsible use of AI.
- Data analysis: structured data handling, exploratory analysis, basic visualization for research purposes.
- Software systems: programming for prototyping and system analysis (Python, Java, PHP).
- Research practice: reproducible workflows, version control, and collaborative development environments,

Educational & Academic Skills
- Curriculum design and assessment aligned with Outcome-Based Education (OBE)
- AI-supported lesson planning and assessment design
- Undergraduate project supervision and research mentoring
- Academic writing and conference paper preparation
- Degree program validation documentation

REFERENCES

Available upon request