Call for Papers

Journal of Universal Computer Science (J.UCS) Special Issue:

Language Technologies and Large Language Models for Education and Learning Analytics

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Motivation and Background:

Education is one of the domains most rapidly transformed by large language models (LLMs). LLM-based tutors, automated feedback and essay-scoring systems, question generation, reading-comprehension support and conversational learning assistants have moved from research prototypes into classrooms and learning platforms used by millions of students, while learning analytics increasingly draws on learner-generated language—forum posts, chat logs, reflections and peer feedback—rather than click-streams alone. This convergence raises questions that neither NLP nor educational-technology research can answer on its own: how to keep generated feedback pedagogically sound and factually correct, how to model learners and knowledge from language, how to serve multilingual and low-resource learner populations, how to evaluate learning gains rather than model output quality, and how to do all of this responsibly with respect to privacy, fairness, academic

integrity and teacher agency. This Special Issue of the Journal of Universal Computer Science invites original research articles and in-depth surveys on language technologies—from classical NLP to large language models—designed for, or evaluated in, educational settings, and on learning analytics that derive insight from learner-generated language. Contributions that advance methods, that build and evaluate systems in real learning contexts, and that address the evaluation, trustworthiness and ethics of LLMs in education are all welcome; work on multilingual and low-resource languages and under-served educational contexts is particularly encouraged.

Topics of interest (list is not exhaustive):

- LLM-based intelligent tutoring systems, conversational learning assistants and pedagogical dialogue
- Automated assessment, essay scoring and feedback generation for written and spoken language
- Question generation, reading-comprehension support and adaptive learning content
- Text summarisation and simplification of educational and scientific materials for learners
- Knowledge graphs, concept extraction and knowledge tracing from textual learning data
- Learning analytics on discussion forums, chat logs, reflections and peer feedback
- Affective computing, engagement and sentiment analysis of learner language
- Multilingual, cross-lingual and low-resource language technologies for education
- Retrieval-augmented and knowledge-grounded generation for reliable educational content
- Hallucination, factuality and pedagogical soundness of LLM outputs in learning contexts
- Detection of AI-generated text, academic integrity and responsible use of generative AI in education
- Fairness, bias, privacy and teacher/learner agency in language-technology-based learning systems
- Evaluation methodologies, benchmarks and datasets for educational NLP and learning analytics
- Case studies and deployments in schools, higher education, MOOCs and workplace learning

Deadlines:

First Submission Deadline:	31 May 2027
Notification of First Round Decision:	31 August 2027
Revised Paper Submission Deadline:	31 October 2027
Notification of Final Decision:	15 December 2027
Final Paper Submission Deadline:	15 January 2028

Submission and Evaluation Procedure:

The Journal of Universal Computer Science is a high-quality electronic publication that deals with all aspects of computer science. J.UCS has been appearing monthly since 1995 and is thus one of the oldest electronic journals with uninterrupted publication since its foundation. For decades, it has also hosted Special Issues on particularly relevant topics in computer science. Please find a list of all already published J.UCS Special Issues here:

https://lib.jucs.org/browse_journal_issues.php?journal_id=109&year=0&special_issues=1

Manuscripts must be submitted in PDF format, written in English with no direct or indirect reference to authors, and should not exceed 25 pages. Papers should be prepared according to the JUCS's guidelines for authors and should be submitted online to be included in the review process. Illustrations and tables must be provided as integrated parts of the manuscript. The guidelines for authors are available at:

https://lib.jucs.org/about#JUCSStyleGuide

Please, bear in mind that the extended version of papers originally presented at the conference or workshop must contain at least 50% new content, and the title and abstract of the extended version must clearly and unmistakably differ from those of the article presented at the conference.

Only novel research papers which are currently not under review at another event or a journal will be accepted for the review process. For more details, please also refer to:

https://lib.jucs.org/about#Special-Issues

Please submit your papers not later than 31 May 2027 using the following submission link/email address:

mudasirm@uok.edu.in (Lead Guest Editor), with subject line "J.UCS SI – Language Technologies for Education"

Each paper will be blind reviewed by at least 3 reviewers. According to the covered main subjects in the content, a selected set of reviewers with the appropriate expertise will be assigned. Please note that only special issues listed at the J.UCS website at https://lib.jucs.org/about#CallforPapers have been approved by the J.UCS review panel.