

PREFACE

Proceedings of Micro2026

Volume I of the *Micro 2026 Proceedings* contains 41 papers covering recent developments in microelectronics, circuits and systems, and related areas. The volume includes contributions on AI-based medical diagnostics, mental health screening, low-power VLSI circuits, memory and arithmetic circuit design, and advanced CMOS technologies. A substantial number of papers focus on circuit-level design, including SRAM cells, D-latches, arithmetic logic units, decimal adders, and charge-pump topologies, with performance mainly evaluated through simulations at advanced CMOS nodes. These studies address the continuing challenge of achieving a suitable balance among power, delay, and area as device dimensions continue to scale. Several papers also examine emerging topics in IoT security, wireless sensor networks, and next-generation wireless communications, while other contributions address topological photonics, perovskite photovoltaics, and multimodal learning. Overall, the papers reflect the core themes and related multidisciplinary areas of Micro 2026 and provide a broad view of contemporary research with potential technological applications.

Most of the papers included in this volume are extended versions of papers presented at the 13th International Conference on Microelectronics, Circuits and Systems (Micro 2026), jointly organized by Gautam Buddha University, Greater Noida, Uttar Pradesh; Indira Gandhi Delhi Technical University for Women, New Delhi; and Applied Computer Technology, Kolkata, during April 24–25, 2026, at Gautam Buddha University. All submitted manuscripts underwent rigorous peer review by at least two independent reviewers under a double-blind review process and were also checked for plagiarism and AI-generated contents in accordance with acceptable limits. The revised manuscripts were further examined by the Guest Editors, following which the final publication decisions were made.

We are grateful to all the authors for their valuable contributions and to the reviewers for the time, effort, and careful attention devoted to the evaluation of the manuscripts. We also sincerely acknowledge the support of the organizing committee in bringing this volume together. We hope that readers will find these proceedings useful for both the specific technical results presented and the broader perspectives they offer on current developments in microelectronics, circuits and systems, and their emerging applications.

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