



SASIGD 2026

2026 International Conference on Sustainable AI for Social Impact and Global Development

August 13-14, 2026

Technically Co-Sponsored by IEEE SSIT, #68127

CALL FOR PAPERS – SPECIAL SESSION

AI-Enabled Intelligent Systems and Semiconductor-Integrated Platforms for Sustainable, Energy-Efficient, Inclusive, and Scalable Development

Session Co-Chairs

Session Code: **SS232**

Prof. P. M. Diagavane, G H Raison College of Engineering, Nagpur, India – (email: hodee.ghrce@raisoni.net)
Prof. A. Thomas, G H Raison College of Engineering, Nagpur, India – (email: hodai.ghrce@raisoni.net)
Prof. Sunil Nanigrani, G H Raison College of Engineering, Nagpur, India – (email: sunil.nanigrani@raisoni.net)

Session Description

This special session focuses on leveraging emerging Artificial Intelligence (AI) and semiconductor ecosystems to advance inclusive, equitable, and sustainable socio-economic development. Although these technologies underpin the new age economy, significant gaps persist in translating them into real-world impact for underserved communities, resource-constrained environments, and developing regions. Key challenges include access to technology, energy efficiency, supply-chain resilience, skills development, ethical deployment, and scalability. The goal of this session is to explore interdisciplinary, policy-relevant, and practically deployable solutions, with a strong focus on the needs of developing countries. The session seeks to highlight approaches that strengthen domestic AI and semiconductor capabilities, support technological self-reliance, and ensure that innovation translates into broad societal benefits. Contributions adopting full-stack perspectives—spanning system design, semiconductor technologies, hardware–software co-optimization, deployment, and governance—are particularly encouraged. Special emphasis is placed on the role of AI data centres, cloud platforms, and digital public infrastructure as foundational enablers of scalable and affordable AI adoption. Energy-efficient and sustainable compute infrastructure is critical for supporting local innovation, enabling global collaboration, and ensuring trustworthy AI deployment in diverse socio-economic contexts. The session invites original research, case studies, and applied innovations demonstrating AI-enabled intelligent systems and semiconductor-integrated platforms that are sustainable, energy-efficient, inclusive, and scalable, with applications in healthcare, education, agriculture, governance, and inclusive economic development.

The topics of interest include, but are not limited to:

- AI accelerator architectures (ASICs, NPUs, TPUs) for energy-efficient inference and training
- Semiconductor design techniques for low-power, high-performance AI workloads
- Edge-AI systems using SoC, FPGA, and microcontroller-based platforms
- Hardware–software co-design for AI model optimization and deployment
- Energy-aware AI scheduling, power management, and thermal optimization
- AI-enabled systems leveraging advanced semiconductor nodes and chiplet architectures
- Trustworthy AI implementation using secure hardware and on-chip security features
- Semiconductor platforms for real-time AI applications in healthcare diagnostics
- AI-enabled digital public infrastructure and large-scale service delivery systems
- AI-driven analytics platforms supported by data-center-class semiconductor technologies
- Scalable AI solutions for low-resource environments using cost-optimized hardware
- Case studies on AI–semiconductor ecosystem development, deployment, and policy impact

IMPORTANT SUBMISSION DEADLINES

Call for Special Session proposals: **February 12, 2026**
Call for Regular Papers: **March 1, 2026**
Call for Student Posters: **March 8, 2026**



PAPER SUBMISSION

Scan the QR Code or Visit

<https://sasigd.org/special-sessions.php>



REVIEWERS REGISTRATION

Scan the QR Code or Visit

<https://forms.gle/oBdwKjcHC8gs6PyaA>

Experts are invited to join as reviewers for SASIGD 2026.

All the accepted & presented papers will be submitted for possible inclusion in IEEE Xplore.

INTERNATIONAL ADVISORY COMMITTEE

Murty Polavarapu, IEEE SSIT President, USA

Kalyan Sen, IEEE SSIT President-Elect, USA

Bozena Pasik-Duncan, University of Kansas, USA

Mei Lin Fung, Vice-Chair, UN AI for Good

Luis Kun, National Defense University, USA

Morgan Kiani, Texas Christian University, USA

Prof. Giancarlo Fortino, University of Calabria, Italy

Dr. Greg Adamson, University of Melbourne, Australia

Prasanta K. Ghosh, Syracuse University, USA

Sanjeevikumar P., Vice President, Education, IEEE Systems Council

Dr. Mennatullah Hendawy, UC Santa Cruz, USA

Dr. A.L.X.R.A. Selvarathinam, Grand Valley State University, USA

Prof. Basabi Chakraborty, Iwate Prefectural University, Japan



Chaitanya Bharathi Institute of Technology (CBIT), Hyderabad, India



August 13-14, 2026



sasigd@cbit.ac.in

CONFERENCE CHAIRS

Dr. Ramalatha Marimuthu
IEEE SSIT Vice President (Memberships)

Dr. Sagar Gujjunoori
Associate Professor, CBIT
Chair, IEEE SSIT Hyderabad Section Chapter

Join us in shaping Responsible and Sustainable AI for Global Development!