

SOEHPON 2026

Conference Theme & Sub-Themes

Digital Transformation and AI: The Future of Occupational and
Environmental Health Practice in Africa

Theme

Digital Transformation and AI: The Future of Occupational and Environmental Health Practice in Africa

The accelerating pace of technological advancement is redefining how organisations manage workplace health, environmental risks and public safety. Across Africa, industries, institutions and governments are increasingly turning to digital systems and artificial intelligence to improve efficiency, strengthen compliance, support safer workplaces and enhance environmental stewardship.

SAICE 2026 provides a timely platform to examine these emerging realities and the practical implications they hold for occupational and environmental health professionals. The conference will explore how innovation can be harnessed to address longstanding challenges in workplace health management, environmental monitoring, emergency preparedness, workforce development and policy implementation.

This year's theme reflects the growing importance of data-driven decision-making, automation, smart systems and connected technologies in shaping healthier workplaces and more resilient communities. It also highlights the need for Africa to build locally relevant solutions that balance innovation with ethics, inclusion, governance and sustainability.

The conference encourages interdisciplinary engagement among health professionals, researchers, regulators, technology experts, industry stakeholders and development partners working at the intersection of health, environment and digital transformation.

I. Intelligent Systems and Digital Innovation in Occupational and Environmental Health

Emerging technologies are changing the way hazards are identified, monitored and managed. This sub-theme focuses on the integration of intelligent systems and digital tools into occupational and environmental health practice, with emphasis on innovation, automation and real-time response capabilities.

Areas of Discussion

- Smart technologies for workplace monitoring
- Predictive systems for hazard management
- Digital tools for environmental surveillance
- Automation in occupational safety processes
- Geographic information systems and exposure mapping
- Sensor technologies and connected monitoring devices
- Technology-enabled emergency response systems

II. Capacity Development and the Future Workforce

As technology reshapes professional practice, there is increasing demand for new competencies, adaptive learning and digitally aware professionals. This sub-theme explores the future of workforce preparedness and institutional readiness within occupational and environmental health systems.

Areas of Discussion

- Digital competencies for modern OEH practice
- Professional training and reskilling initiatives
- Technology-supported learning environments
- Future workplace dynamics and workforce adaptation
- Institutional partnerships and knowledge exchange
- Strengthening professional development systems

III. Responsible Technology, Regulation and Inclusive Practice

The adoption of digital technologies raises important concerns around ethics, fairness, accountability and governance. This sub-theme examines how organisations and policymakers can promote responsible innovation while protecting rights, privacy and equitable participation.

Areas of Discussion

- Ethical considerations in digital workplace systems
- Data governance and confidentiality
- Inclusive access to digital health technologies
- Legal and regulatory frameworks
- Equity in technology deployment
- Responsible use of worker data and surveillance systems

IV. Strategy, Implementation and Sustainable Impact

Innovation achieves its greatest value when effectively implemented and sustained. This sub-theme focuses on translating digital ideas into practical systems, policies and measurable outcomes that strengthen occupational and environmental health practice across Africa.

Areas of Discussion

- Scaling digital health interventions
- National and institutional implementation strategies
- Public-private collaboration models
- Monitoring and evaluation frameworks
- Investment opportunities and sustainability planning
- African case studies and implementation experiences
- Environmental sustainability and technology-related impacts

Advancing the Future of Practice

SAICE 2026 aims to inspire practical solutions, strategic partnerships and forward-looking conversations that will shape the next phase of occupational and environmental health practice in Africa. Through scientific engagement, policy dialogue and professional networking, the conference seeks to encourage innovation that is not only technologically advanced, but also socially responsible, contextually relevant and sustainable for future generations.