



GhIE

GHANA INSTITUTE OF ENGINEERING

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CALL FOR

PAPERS

57TH

ANNUAL GENERAL MEETING AND CONFERENCE



**Theme: Engineering Efficient and Sustainable
Urban Transport Systems as a Catalyst for
National Productivity and Growth**

**15TH - 19TH
MARCH, 2027**



ACCRA



The **Ghana Institution of Engineering (GhIE)** invites you to its **57th Annual General Meeting and Conference** that will be held from **15th to 19th March 2027 in Accra**, Ghana. The theme for the conference is **"Engineering Efficient and Sustainable Urban Transport Systems as a Catalyst for National Productivity and Growth"** and will provide a common platform for engineering practitioners, experts, innovators, policymakers, and stakeholders to share ideas, experiences and solutions towards the realisation of resilient urban transport systems in the country and beyond.

The conference aims to provide innovative, context-specific and locally appropriate engineering solutions to the transport challenges facing Ghanaian, African and other rapidly urbanising cities along the following five strategic pillars:

Efficiency: Optimising transport networks, reducing congestion, improving public transport performance and enhancing passenger and freight mobility and access to economic opportunities.

Sustainability: Decarbonising transport, promoting clean energy and resource efficiency, and developing climate-resilient transport infrastructure and systems with benefits for blended finance for transport.

Safety: Applying engineering, technology and Safe System principles to prevent crashes and protect all road users and reduce the health burden and losses to the economy.

Innovation: Harnessing artificial intelligence, digitalisation, intelligent transport systems, connected technologies and data-driven engineering solutions and employment creation.

Productivity: Demonstrating how efficient and reliable urban mobility reduces travel time and costs, improves accessibility, supports businesses and contributes to national economic growth and jobs.

Conference Sub-Themes:

1. Climate-Resilient, Sustainable and Low-Carbon Transport Systems

This sub-theme focuses on engineering approaches, technologies and strategies for developing urban transport infrastructure and systems that are climate-resilient, resource-efficient, low-carbon and capable of supporting sustainable mobility and inclusive economic growth.

- Climate-resilient and sustainable transport infrastructure design
- Disaster-resilient transport infrastructure, adaptation and recovery
- Sustainable drainage and environmental management for transport infrastructure
- Low-carbon, resource-efficient and life-cycle-based infrastructure engineering
- Sustainable infrastructure maintenance, asset management and resilience
- Electric mobility, alternative fuels and energy-efficient transport technologies
- Charging and renewable energy infrastructure for sustainable urban mobility
- Transport decarbonisation, emissions reduction and urban air quality
- Efficient and sustainable transport systems for economic growth and public health

2. Intelligent, Data-Driven and Digital Transport Systems

This sub-theme focuses on the application of digital technologies, data analytics and intelligent systems to improve transport efficiency, safety, reliability, network performance and user experience.

- Artificial intelligence and machine learning in transportation
- IoT-enabled traffic monitoring and control
- Intelligent traffic management and real-time mobility information
- Big data, GIS and predictive transport analytics
- Digital twins and digital infrastructure
- Connected and automated vehicles

- Smart mobility platforms and Mobility-as-a-Service
- Cybersecurity and data governance in transport systems
- Socioeconomic impacts and job creation in intelligent transport systems

3. Integrated Public Transport Systems, Sustainable Mobility and Urban Growth

This sub-theme focuses on the engineering, planning, integration and operation of public transport systems to enhance capacity, reliability, accessibility, affordability, efficiency and service quality, while supporting sustainable mobility, inclusive development and resilient urban growth

- Bus Rapid Transit, rail and high-capacity public transport systems
- Public transport network design and optimisation
- Paratransit and informal transport system integration and jobs
- Public transport operations, capacity, reliability and service quality
- Intermodal integration and first- and last-mile connectivity
- Intelligent and sustainable public transport technologies for fare systems, smart ticketing and digital payments
- Accessibility and inclusive public transport for persons with disabilities, older persons and other vulnerable users
- Resilient and sustainable public transport systems for rapidly growing cities

4. Non-Motorised Transport, Active Mobility and Inclusive Access

This sub-theme focuses on the engineering, planning and integration of safe, accessible and efficient infrastructure and mobility systems for walking, cycling and other forms of active mobility.

- Pedestrian and cycling infrastructure design, construction and maintenance
- Pedestrian and cyclist safety engineering and risk reduction
- Complete streets and sustainable, people-centred street planning and design Universal accessibility and inclusive transport infrastructure
- Integration of active mobility with public transport and transit-oriented development
- Active mobility planning, modelling, network optimisation and demand analysis
- Sustainable last-mile mobility, including walking- and cycling-based delivery systems
- Safe and accessible streets for all road users and vulnerable transport users

5. Urban Transportation, Land Use, Governance and Finance

This sub-theme focuses on spatial planning and management, governance and management of urban and greater metropolitan areas, and innovative and sustainable financing systems for integrated urban development and mobility.

- Urban housing, employment, spatial planning and sustainable transportation
- Transport-land-use interaction, integration and modelling
- Integrated spatial and urban transport network planning
- Efficient freight, logistics and last-mile delivery systems for urban productivity and employability
- Multimodal transport integration and network connectivity
- Governance and management systems in greater metropolitan areas and integrated spatial and urban transport systems
- Innovative and sustainable financing and appraisal systems for urban transportation
- Urban transport policy and institutional coordination for sustainable urban mobility
- Integration of formal and informal transport systems
- Equity and inclusive approaches to urban mobility planning

6. Transport Safety, Traffic Engineering and Mobility Management

This sub-theme focuses on engineering methods, technologies and systems for reducing road traffic crashes, improving traffic operations, managing demand and enhancing the safety, efficiency, resilience and performance of transport networks.

- Road safety audits and engineering interventions
- Crash analysis, risk modelling and safety prediction
- Safe System approaches and speed management
- Pedestrian, cyclist and motorcyclist safety Traffic congestion management and network modelling
- Traffic signal and transportation network optimisation
- Incident management and traffic operations
- Travel demand and parking management
- Road freight safety, vehicle standards and axle-load management

KEY ACTIVITIES

Key activities for this annual gathering of professionals, affiliates and stakeholders include:

- **Interdivisional Games**
- **Young Engineers Forum**
- **Artisans Forum**
- **Keynote Presentations**
- **Technical Sessions**
- **Panel Discussion**
- **Women in Engineering (WinE) Forum**
- **Annual General Meeting**
- **Banquet Dinner**
- **Technical Tours**

EXTENDED ABSTRACT SUBMISSIONS

GhIE invites all members and affiliates including scientists, academics, and students to submit Extended Abstracts of their original research or project on any of the conference sub-themes for oral or poster presentations. The Extended Abstracts should be written in English Language, be between 1500 to 3000 words and must be prepared following the guidelines in the attached Extended Abstract Template.

All the abstracts should be submitted via email to journal@ghie.org.gh. All submitted abstracts would go through peer reviews, and the authors would be required to address review comments prior to paper acceptance and presentation at the conference. Additionally, all the accepted Extended Abstracts would be published in a special conference proceeding issue of the Journal of the Ghana Institution of Engineering.

IMPORTANT DATES:

Extended Abstract Submission: **1st Oct. 2026 – 15th Jan. 2027**

Notification of Extended Abstract Acceptance: **22nd January 2027**

Finalisation of Extended Abstract: **22nd February 2027**

Submission of Final Presentations **14th March 2027**

Opening of Registration: **11th January 2027**

Early Bird Registration: **11th January – 22nd February 2027**

CONTACT INFORMATION

Questions on paper submissions and conference registration should be sent to journal@ghie.org.gh or secretariat@ghie.org.gh respectively.