













31ST IEK INTERNATIONAL CONVENTION

DATE: 29th October - 1st November 2024 VENUE: Mombasa, Kenya



CONCEPT NOTE



1. Background

Industrialization is a cornerstone of economic development, driving productivity, innovation and job creation. As countries strive to enhance their economic landscapes and reduce unemployment, the role of industrialization becomes increasingly critical. This convention aims to bring together policy makers, industry leaders, academics and other stakeholders to discuss strategies to leveraging industrialization to foster economic development and create sustainable employment opportunities.

2. Institution of Engineers of Kenya (IEK)

The IEK was founded in 1972 as the learned society of the engineering profession in Kenya. The function of IEK is to promote the engineering profession and contribute to the sustainable development of the country by cooperating with national, regional and other international institutions in developing engineering to the benefit of humanity. Its membership currently stands at over 12,000 members spread across the country in the seven (8) branches that have been established so far.



3. CONVENTION Industrialization for Economic Transformation THEME: and Employment Creation

3.1 Subthemes

a) Industrial Policy, Regulatory Frameworks, Manufacturing and Economic Impact

- a. Industrial Policy and Economic Planning
- b. Engineering perspectives on industrial policy-making
- c. Impact of Industrialization on GDP Growth and Bottum Up Economic Transformative Agenda
- d. Enabling Environments, Regulatory and Policy Frameworks for Growth
- e. Compliance and Standards in Manufacturing
- f. Priority Value Chains for the Country
- g. Case studies of successful industrial policy implementations.
- h. Role of Governments in Promoting Industrialization
- i. Local Content Policies
- j. Reverse Engineering and its applications
- k. Future Trends and Opportunities

b) Engineering Solutions for Employment Creation and Skills Development

- a. Job Creation Strategies through industrial initiatives
- b. Entrepreneurship and Micro, Small and Medium Enterprises (MSMEs) Support
- c. Training Programmes for Industrial Workforce
- d. Lifelong Learning and Upskilling Initiatives
- e. Engineering education and its alignment with industry needs.
- f. Continuous professional development for engineers.
- g. Collaborative programs between industry and academia

c) Agriculture, Infrastructure, Logistics, Smart Cities and Urban Industrial Development

- a. Agriculture Mechanization, Smart Agriculture, Agri Food Systems, Agribusiness & Agro Processing
- b. Transportation and Logistics infrastructure
- c. Enhanced Water Supply and Sanitation Infrastructure for Industrialization
- d. Energy Management and Optimization, Renewable Energy and Clean Energy Solutions
- e. Industrial Infrastructure -Special Economic Zones/ Industrial Parks
- f. Innovations in construction technologies for industrial projects.
- g. Developing regional infrastructure to support industrial activities.
- h. Transportation, energy, and communication networks for regional industries.
- i. Enhanced Irrigation Infrastructure for Industrial Raw Material Supply

d) Green, Climate Resilient and Sustainable Industrial Practices

- a. Green Industrialization
- b. Designing eco-friendly industrial processes.
- c. Energy-efficient technologies and their economic benefits.
- d. Sustainable materials and their role in industrial applications
- e. Resource Efficiency and Waste Management
- f. Circular Economy and Zero Waste
- g. A Future Mobility: Electric Vehicles
- h. Flood Resilience Interventions
- i. Social and Environmental Considerations
- j. Corporate Social Responsibility

e) Investments, Financing and Public Private Partnerships in Industrialization

- a. Strategies to attract and retain Foreign Direct Investments in the industrial sector Investment and Financing Opportunities
- b. Domestic Investment and Capital Mobilization
- c. Sector-Specific Investment Opportunities:
- Identifying high-potential sectors for industrial investments
- e. Traditional and Innovative Financing Methods
- f. Government Incentives and Subsidies
- g. Frameworks and Models for PPPs:
- h. Risk Management and Mitigation
- i. Innovation Hubs and Incubators

f) Globalization, Regional and Devolution for Industrialization

- a. Washington Accord and its impacts on Industrialization
- b. Impact of devolving industrial policy-making to local governments
- c. Role of local governments in fostering industrial growth.
- d. Community engagement and support for local industrial projects.
- e. Local, Regional and Global Value Chains
- f. The role of international trade agreements in industrial development.
- g. Overcoming trade barriers and leveraging global markets.
- h. Impact of global supply chain disruptions on industrial operations.

g) ICT, Innovations, R&D, Advanced Manufacturing Technologies and Digital Transformation

- a Telecommunications and Digital Super Highway
- b. Promoting research and development in industrial engineering.
- c. Role of Technology and Innovation
- d. Collaborative R&D projects between industry and research institutions
- e. Industry 4.0 and Digital Industrialization
- f. Role of additive manufacturing (3D printing) in industrial growth.
- g. Automation, Al, and Robotics in Modern Industries
- h. Smart factories and their impact on productivity and employment.
- i. Precision Engineering
- j. Advanced manufacturing techniques and materials
- k. Blue Economy
- h) Renewable energy solutions, energy efficiency in manufacturing, smart grids energy integration for industrial applications
- i) Engineering healthcare infrastructure, medical device innovations, and industrial impact on public health

4. 7TH WOMEN ENGINEERS' SUMMIT

Theme:

Future of Work: Women's Role in Industrialization and Green Growth.

4.1 Subthemes:

- a. Future of Work & Innovation
- b. Women in Industrialization, Entrepreneurship & Start Ups
- c. Green Growth and Sustainability
- d. Skill Development and Education
- e. Leadership and Mentorship

5. 3RD FUTURE LEADERS SUMMIT

Theme:

Future Leaders Shaping Industrialization.

5.1 Subthemes:

- a. Innovative Engineering Solutions
- b. Sustainable Practices in Engineering
- c. Leadership and Professional Development
- d. Technological Advancements
- e. Economic Impact of Engineering
- f. Entrepreneurship and Startups
- g. Networking and Collaborations

6. EXPO

IEK will organize an expo showcasing innovations and prototypes from industry professionals, companies, academic researchers, institutions, startups, and innovators for presentation at the Convention. The Expo will showcase groundbreaking innovations in advanced manufacturing, automation, sustainable industrial practices, smart and connected industries, industrial IoT, energy efficiency, material science advancements, and Al applications in industry.



7. SPECIFIC OBJECTIVES

- To highlight the how industrialization drives economic growth and employment.
- To discuss latest innovations in industrial engineering and their economic impacts.
- To promote sustainable practices within industrialization efforts.
- To foster Public Private Partnership collaboration between Governments and Private sectors.
- To enhance skills development focusing on education and training to meet industrial workforce needs.
- To contextualize the milestone of Women Engineers in Industrialization
- To crystalize the role of Young Engineers in industrialization.



8. EXPECTED OUTCOME

- Increased awareness of the importance of industrialization for economic development.
- Sharing best practices and latest innovations in industrial engineering.
- Development of actionable strategies for creating jobs through industrialization.
- Development of sustainable and environmentally friendly industrial practices.
- Networking opportunities to foster collaborations and Partnerships.
- Establishment of strategies for workforce development and skills enhancement.

9. IN BRIEF

The four-day program will comprise of:

- **Keynote Speakers**
- Panel Discussions
- Poster Presentations
- Paper Presentations
- **Technical Sessions**
- **Exhibition stands**

- 7) Industrial Visits and Sight Seeing Tours
- 8) Networking & Social activities
- Expo



10. DELEGATES WILL INCLUDE:

- Engineers across the globe
- Prominent national and county leaders
- Policy makers
- Academicians
- Manufacturers

- 6) Affiliate members of FAEO, WFEO & WCCE
- 7) Industry experts
- Researchers
- **Development Partners**
- 10) Financial Institutions



Non-Members IEK Member in IEK Member not good standing in good standing*

Physical Attendance

Early Registration (before 30th Sept) Kshs. 50,000 Kshs. 55,000 Kshs. 55,000 Kshs. 60,000 Kshs. 60,000 Kshs. 55,000

Late Registration (after 30th Sept)

Virtual Attendance

Early Registration (before 30th Sept) Kshs. 20,000 Kshs. 25,000 Kshs. 25,000 **Late Registration** (after 30th Sept) Kshs. 25,000 Kshs. 30,000 Kshs. 30,000

* By the date of registering for the Convention

Physical Attendance Virtual Attendance Foreign Delegate USD500 USD200 Undergraduate student Early Registration Late Registration (Virtual Attendance) Kshs. 5,000 Kshs. 5,500

*Cancellation policy 50% refund before 30th September and 0% refund after



2,000+

Physical delegates



1,500+

Virtual delegates



Presentations



Panel Discussions



70 +**Exhibitors**



30 +

Hours of Program

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