# **ENGINEERING CAPACITY BUILDING FOR** AFRICA PR©GRAMME

World Federation of Engineering Organizations (WFEO) proposes a 10-year initiative, levaraging Capacity Building for sustainable development in the context of global digital transformation.













## The programme aligns with

#### UN 2030 Agenda for Sustainable Development

The Global Sustainable Development Report (GSDR) 2023 incorporated capacity building as one of the five levers to promote the achievement of the Sustainable Development Goals.

#### u African Union Agenda 2063

"There was a need for a strategic approach that prioritizes areas of capacity challenges that can unlock potential for the implementation of the African Union Agenda.

## International Decade of Sciences for Sustainable Development

On 25 August 2023, the 78th United Nations General Assembly adopted a resolution proclaiming 2024-2033 as the International Decade of Sciences for Sustainable Development, and highlighted the importance of financing and capacity-building.

## UN Resolutions of AI in Engineering Capacity Building

Resolution A/RES/78/265: Seizing the opportunities of safe, secure, and trustworthy artificial intelligence systems for sustainable development Resolution A/RES/78/311: Enhancing international cooperation on capacitybuilding of artificial intelligence

## The Pact for The Future and Global Digital Compact

The international community's shared commitment to strengthening global cooperation in the era of digital transformation, while emphasizing the need to equip developing countries with the necessary tools to enhance their capacity in science, technology, and innovation.

## **Partners**



















# **Objectives**

## Enhance Capacity in Engineering Education

- to improve the auglity and relevance of engineering education across the continent, which is the foundation of engineering capacity.

## Enhance Capacity in Continuous Professional Development

- to empower engineers with advanced technical and soft skills of digitization and green transitions.

## Enhance Capacity in Technology Transfer

- to increase the capacity of adoption and application of the transferred technology in specific local conditions and to address the local challenges in implementing the SDGs.

# "Digital + Engineering" Entry Points

Digital+ Energy Transition

Infrastructure (Water)

Digital+ Agriculture (Food security)

## **Organizational Structure**

Steering Committee

holds executive responsibility to carry out ECBAP's mandate



provides advisory support to training curriculum design and monitors progress to ensure the quality in the development of the Programme



serves the role as ECBAP secretariat and is accountable for administration, documentation, and liaison on a regular basis at the global level.



functions as the African Regional Hub. coordinating and overseeina the Programme's implementation at the regional level.



to be built with support by local engineering organizations and governments, coordinated by IPO under the guidance of EC and SC, to carry out training activities

# **Implementation Strategy**

## 10-year programme with 3 phases

#### First 3 years

## Planning, Pilot Training, Fundraising

- Establish SC, EC, IPO and 1-2 CBCs
- Conduct the assessment of existing capacities, needs, and challenges in Africa
- Develop a detailed action plan and an implementation framework
- Carry out pilot training programmes in different format and in different sub-regions of Africa, assesses the outcomes of pilot projects for continuous improvement, in the set CBCs
- Establish concrete and effective collaboration with partner institutions' related projects, such as UNESCO's Campus Africa.
- UNIDO's Center of Excellence, UNDESA's related projects, WFEO
- Set fundraising plan and raise funds to support the scaling up of the program

## **Following years**

Scaling up Capacity Building Projects

- · Subjective dimension of engineering education, continuous professional development and technology transfer in interconnected
- Geographical dimension to expand the training to most countries in
- Professional dimension to cover major engineering fields, such as energy, environmental, mining and material, water and hydraulic manufacturing, agricultural engineering, in implementing the SDGs;
- Educational dimension to cover higher and vocational education

## **Final years**

- Review and summarize the good practices
- Optimize institutional frameworks, partnerships, and funding mechanisms to ensure the long-term sustainability of capacity building efforts beyond the project's duration