

Strengthening the Role of Engineering for SDG

GONG Ke World Federation of Engineering Organizations

Engineering for Sustainable Development



Message of Congratulations from UN Secretary General Antonio Gutteres to the Global Engineering Congress, 22-26 October 2018



"The United Nations will continue to count on your engagement and support as we strive to achieve the 17 Sustainable Development Goals – the world's blueprint for building a future of peace and prosperity for all on a healthy planet. Every one of the Goals requires solutions rooted in science, technology and engineering. I am therefore pleased that the focus of this Global Engineering Congress is to advance the goals relating to water, energy, infrastructure and cities."



World Federation of Engineering Organizations

• WFEO

- The international organization for the engineering profession
- Founded in 1968
- Under the auspices of UNESCO
- 90+ national engineering institutions
- 11 international engineering organizations
- Representing 70+ million engineers

Engineering for Sustainable Development

Algeria Argentina Australia Bahrain Bangladesh Belize Bolivia Brazil Bulgaria Cameroon Canada Chile China Chinese Taipei Colombia Costa Rica Croatia Cuba Cyprus Czech Republic

Ecuador Egypt Ethiopia Fiji France Germany Ghana Greece Honduras Hong Kong, China Hungary India Iraq Italy Ivory Coast Japan Jordan Kenya Korea Kuwait

ebanon Libya Macedonia (FYROM) Madagascar Malawi Malaysia Malta Mauritius Mexico Moldavia Mongolia Montenegro Morocco Nepal New Zealand Nigeria Pakistan Palestine Peru Poland

Portugal Puerto Rico Qatar Romania Russia Rwanda Saudi Arabia Senegal Serbia Sierra Leone Singapore Slovakia Slovenia South Africa Spain Sri Lanka Sudan Switzerland Syria Tanzania

The Philippines Tunisia Turkey Uganda Ukraine United Arab Emirates United Kingdom United States Uruguay Yemen Zambia Zimbabwe





WFEO Committees and Working Groups

- Engineering and the Environment (Hosted by UK)
- Energy (Hosted by USA)
- Engineering Education (Hosted by Lebanon)
- Information and Communication (Hosted by India)
- Engineering and Innovative Technologies (Hosted by China)
- Engineering Capacity Building (Hosted by South Africa)
- Disaster Risk Management (Hosted by Peru)
- Anti-Corruption (Hosted by Zimbabwe)
- Women in Engineering (Hosted by Nigeria)
- Young Engineers/Future Leaders (Hosted by Kuwait)
- Working Group on Water (Hosted by Spain)
- Working Group on Global Infrastructure Report Card (Hosted by Federation of African Engineering Organisations)
- UN Relations Committee (Hosted by USA)



WFEO Engineering 2030 Plan

- Recognizing that engineers are essential for sustainable development and good engineering is essential achieving the UN Sustainable Development Goals Consistent with the mission and objectives of WFEO
- WFEO Engineering 2030 laying emphasis on developing engineering capacity for a sustainable world through partnerships with educators, government, industry and professional engineering institutions







Professional Judgment

<u>Model Code Principle # 1</u>: Integrate Adaption into Practice <u>Model Code Principle # 2</u>: Review Adequacy of Current Standards <u>Model Code Principle # 3</u>: Exercise Professional Judgement

Integrating Climate Information

Model Code Principle # 4: Interpret Climate Information Model Code Principle # 5: Work with Specialists and Stakeholders

Model Code Principle # 6: Use Effective Language

Practice Guidance

<u>Model Code Principle # 7</u>: Plan for Service Life <u>Model Code Principle # 8</u>: Use Risk Assessment for Uncertainty <u>Model Code Principle # 9</u>: Monitor Legal Liabilities

	ineering Organizations
	of Practice
	Environmental Stewardship
	Act Local
	nderstanding of environmental stewardship, d of practice.
	knowledge is not adequate to address
	ietal values applicable to your work, including local cial concerns related to environmental impact along
on for	ssible stage employing applicable standards and
	- ction, eco-system components and sustainability in oper consideration of climate change and extreme
	ty planning into the life-cycle planning and nt, and implement efficient, sustainable solutions.
	l and economic factors while contributing to healthy nt.
	IT stakeholders, both external and internal, to solicit espond to all concerns – economic, social and nsistent with the scope of your assignment. Disclose appropriate authorities.
	requirements and endeavour to exceed or better ly viable methodologies, technologies and
	nage but scientific certainty is lacking, implement



Suggestions

The 10 member group and IATT are called to pay more attentions to engineering and engineering capacity building with consideration of emerging technologies like AI, Big Data, IoT and etc.





Thanks for your kind attentions and Welcome to contact us

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