ONLINE

FUTURE OF WORK

HUMANOID ROBOTS AT WORK

HUMAN–MACHINE COLLABORATION AND THE FUTURE OF WORK

14 – 28 APRIL 2026

2 WEEKS

Information Note

International Labour Organization

ITC International Training Centre

> **Learn to understand, question, and responsibly harness humanoid robots—through a uniquely human-centred UN perspective on the future of work.**

INTRODUCTION TO THE COURSE

AI-powered robots, and in particular humanoid and semi-humanoid robots, are increasingly recognised as a foundational and emerging technology with the potential to profoundly transform work, learning, and social systems. Driven by massive global investments and rapid technological advances, AI-powered robots, including humanoid and semi-humanoid systems, are moving quickly from experimentation to real-world deployment across sectors such as manufacturing, logistics, services, care, and capacity development.

As highlighted by the 2023 review of progress on the **2030 United Nations Sustainable Development Agenda**, decisive action is needed if the SDGs are to be achieved. In this context, the Pact for the Future, endorsed by the UN General Assembly, calls on the UN system to strengthen key capabilities: innovation, data, digital transformation, future foresight, and behavioural insights (the UN Quintet of Change). **Understanding and harnessing emerging technologies in a human-centred way is central to this effort**.

Yet, technological adoption, particularly in the private sector, is moving faster than governance frameworks, institutional learning, and public sector preparedness. This growing gap risks leaving decision-makers unprepared to act when technological breakthroughs occur, with significant implications for social justice, decent work, and inclusion.

This course is part of the broader reflection on the **nexus between emerging technologies and decent work**: using **human–machine collaboration** as a guiding lens, the course provides a space to *learn* about the status of humanoid robots today, its opportunities, risks, and ethical dimensions in order to *act fast* and responsibly as its impact on the world of work and learning accelerates.

Grounded in the UN and ILO human-centred approach to technology, the course invites participants to explore how humanoid and semi-humanoid robots can be **harnessed**, rather than merely adopted, **to support social justice, decent work, and sustainable development**, alongside and in dialogue with other emerging technology workstreams across the UN system.

THE HUMAN-CENTRED APPROACH

This course builds on ITCILO's broader work on **emerging and foundational technologies and their implications for decent work and social justice**. Over recent years, ITCILO has been exploring how technologies such as artificial intelligence, neurotechnology, quantum technologies, biotechnologies and AI-powered robots are reshaping work, learning, and capacity development, through action research, digital briefs, and a dedicated webinar series on the nexus between technology and decent work. Within this broader reflection, humanoid and semi-humanoid robots represent a critical next step: a convergence of AI, embodiment, and human interaction with direct implications for work and learning. **The course draws on this ongoing work and on ITCILO's recent research on the compounding impact of AI and robotics, providing participants with a unique, human-centred UN perspective on how humanoid robots can be understood, critically assessed, and responsibly harnessed in support of social justice and sustainable development**.

WHO ATTENDS THIS COURSE?

This course is designed for:

- Policymakers and public officials
- Researchers interested in the future of work and learning
- Undergraduate and post-graduate students in fields aligned with technology and its social impact
- Project officers and practitioners
- Workers and professionals involved in technological change
- Innovation experts
- Individuals seeking a society-oriented understanding of humanoid and semi-humanoid robots

No specific technical background on AI-powered robots is required.

WHAT TOPICS DOES THIS COURSE COVER AND WHAT WILL I LEARN?

Through a combination of interactive webinars, curated readings, and short self-paced learning, this course explores AI-powered robots as a **foundational and emerging technology** shaping the future of work and learning.

Participants will gain:

- **A clear, non-technical understanding of humanoid and semi-humanoid robots**, including the basic components of robotic systems (hardware, software, sensors, and AI) and how robots function as **physical / embodied AI** within the broader AI ecosystem.
- **An overview of different types of humanoid/semi humanoid robots**, including use cases of humanoid and semi-humanoid robots across industrial, service, domestic and care settings and how they are already being used in real-world work and learning environments.
- **A human-centred, UN/ILO-informed perspective on emerging technologies,** exploring how humanoid and semi-humanoid robots can be understood, critically assessed, and harnessed in support of social justice, decent work, and sustainable development, in line with the 2030 Agenda.
- **Insights into human–machine collaboration and its ethical and social implications,** examining how humanoid robots are reshaping work and learning, augmenting human roles in contexts such as labour shortages and the care economy, besides also raising critical questions related to ethics, human rights, power, and dignity at work.
- **Concrete global use cases** from different regions, highlighting how humanoid and semi-humanoid robots are being applied across sectors such as manufacturing, logistics, services, and the care economy.

By the end of the course, participants will be equipped to engage more confidently in informed discussions about humanoid and semi-humanoid robots and the future of work, understand both opportunities and risks, and contribute to forward-looking reflections on how emerging technologies can be shaped, not just adopted, in a responsible and inclusive way.

AGENDA

Week 1: Understanding Humanoid Robots and Human–Machine collaboration

- From AI to Humanoid Robots: why they matter now
- Human–Machine Collaboration in practice: use cases and sectoral applications

Week 2: Ethics, global perspectives and the future of work

- Ethics, Human Rights and Decent Work
- Robotics and the future of work

Speakers will include experts from the United Nations system and the ILO, leading scholars from internationally recognised universities, representatives from companies already developing and working with humanoid and AI-powered robots across different continents, as well as keynote speakers and internationally renowned authors in the field.

WHAT WILL I BE REQUIRED TO DO DURING THE COURSE?

Participants are expected to:

- Read a selection of curated articles
- Actively participate in four live webinars
- Engage in guided reflection and discussion activities
- A short final test to receive the certificate

WHAT WILL I BE ABLE TO DO?

After completing the course, you will be able to:

- **Critically reflect** on ethics, human rights, and power dynamics in the world of work
- **Explain humanoid and semi-humanoid robots**, and their role within the broader robotics and AI ecosystem, in clear and accessible language
- Discuss **concrete use cases** of robotics across sectors and regions
- Contribute to informed conversations on **human–machine collaboration**
- Apply a **UN/ILO-informed, human-centred perspective to future-of-work debates**

WHY SHOULD I JOIN?

- Robotics and **AI-powered machines are spreading faster than institutions can adapt**
- Understanding **human–machine collaboration** is key to shaping the future of work and learning
- The course goes beyond hype, focusing on real use cases, ethics, and social impact
- You will benefit from a globally relevant perspective grounded in ILO values and the 2030 Agenda

CERTIFICATE

Participants who successfully complete the course will receive a Certificate of Participation.

In addition, participants will be invited to respond to a **Call for Papers**, launched at the end of the course. Those who choose to take part and who successfully submit a paper will receive a **Certificate of Achievement**.

The **best paper** will be selected and its author(s) will be invited to present their work during the **Academic Day**, to be held in **May in Turin (Italy)**, as part of ITCILO's academic activities.

This pathway is designed to encourage deeper reflection, applied research, and dialogue between practitioners, researchers, and international organisations on humanoid robots, human–machine collaboration, and the future of work.

WITHDRAWAL, CANCELLATION POLICY, AND REFUNDS FOR OPEN COURSES

If an enrolled participant wishes or must withdraw from a course, they may choose to apply to a different course or be substituted by another candidate. The participant must notify the Centre, in writing, of their decision at least 14 days prior to the start date of the course. Cancellation of participation in regular courses will result in the following penalties:

- 14 days or more prior to the start date of the course: No penalty, 100% refund of amount paid less applicable bank charges
- 8 to 13 days prior to the start date of the course: Penalty of 50% of course price, refund of residual amount paid (if any) less applicable bank charges
- 7 days or less prior to the start date of the course: Penalty of 100% of course price.

INFO

FOR FURTHER INFORMATION PLEASE CONTACT

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