









- 34th Members' Meeting of the «Club of Bologna »
- Mechanisation and Technologies for New Farmers Needs
- 11-12 October 2025
- Bari, Italy

Application of AI in Agricultural Machinery and Components

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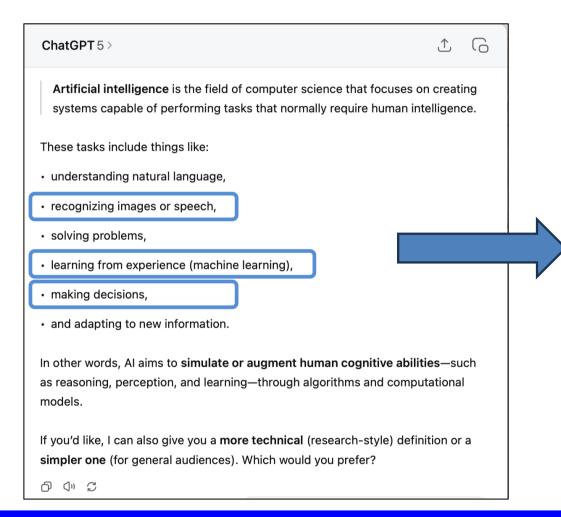








What is AI?



work in unstructured contexts characterized by complexity and uncertainty









What is an AI system?

Al ACT (13 June 2024) point 12)

"A key characteristic of AI systems is their capability to infer.

This capability to infer refers to the process of <u>obtaining the outputs</u>, such as predictions, content, recommendations, or decisions, which can influence physical and virtual environments, and to a capability of Al systems to derive models or algorithms, or both, <u>from inputs or data</u>."

OECD/LEGAL/0449 - Amended on: 03/05/2024

"An Al system is a machine-based system that, for explicit or implicit objectives, **infers**, **from the input it receives**, **how to generate outputs** such as predictions, content, recommendations, or decisions that can influence physical or virtual environments."









ve models or

What is an AI system?

Al ACT (13 June 2024) point 12)

"A key characteristic of Al systems is their capability to **infer**.

This capabil predictions.

Not every inference qualifies as artificial and virtual intelligence.

algorithms, While inference is a necessary condition to define a system as AI, it is not sufficient: autonomy, adaptability, and data-driven learning are also required.

cit objectives.

content, recommendations, or decisions that can influence physical or virtual environments."









Objective of this session: try to give answers

How can AI can help agricultural engineering?

How can AI integrate into (agricultural) engineering?

When AI systems are high-risk?

How can an AI system be homologated/certified?

How to manage AI system self-evolving and continuous learning capability?

Are we ready for AI-based autonomous agricultural machines?









Session program:

SESSION 3		Application of AI in Agricultural Machinery and Components
3L331		Chairman: Paolo Gay (CoB CoB Management Committee) - Rapporteur: Zixuan He (Pellizzi Prize '24)
8:50	9:30	3.1 – The EU Vision of AI and Its Role in Agricultural Automation
		Georg Happich (Univ. Applied Sc. Kempten - Germany), Alessio Bolognesi (Federunacoma - Italy)
9:30	9:55	3.2 – Embedded AI for Application in Real-time
		Marko Bertogna (University Modena-Reggio Emilia - Italy)
9:55	10:10	Coffee break
10:10	10:35	3.3 – The Use of AI for Productivity and Safety in Agricultural Machinery
		Daniele Parazza (KIWITRON - Italy)
10:35	11:05	Session 3 - Discussion and Key-Sentences drawing up