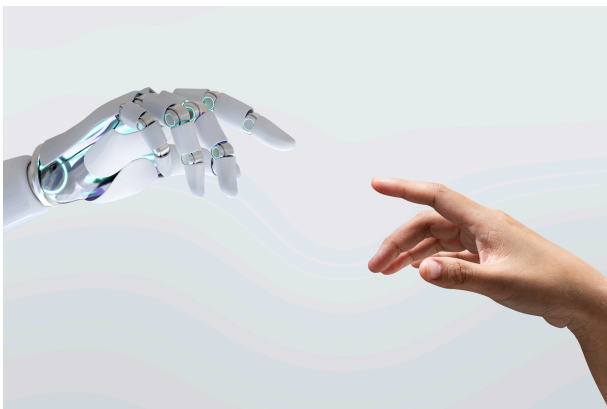


# IP MARKETPLACE

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## Human-robot empathic interaction



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#### MEGA-TREND

- **SMART Cities and SMART Infrastructure**
- **Healthcare**
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#### TECHNOLOGY READINESS LEVEL (TRL)

- **TRL 4**

#### PATENT/ GRANTED NUMBER

- **MY-181014-A**

### ▶ TECHNOLOGY OVERVIEW

The present invention relates to a method for empathic interaction between a human and a robot, characterised by the steps of: detecting cognitive empathy in a human during an interaction period to recognise the human's emotion; defining the emotion according to parameters comprising type, valence, intensity and cause, wherein the type represents the emotion type, valence indicates the emotion in positive or negative valence associated with the detected emotion type, intensity represents a number greater than zero that corresponds to the emotion's intensity, and cause corresponds to an event that caused the emotion; simulating the perceived cognitive empathy by mapping to the robot's memory with corresponding activation values and subsequently inferring the human's emotional state; determining the recognised emotion and an elicited emotion through self-projection to determine intensity of potential empathic emotion according to an empathy modulation comprising similarity, affective link, mood and personality; and selecting empathic responses among a set of possible empathic actions if a negative affective state is detected in the human.

## CONTACT US!

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