

Cloud Based Human Robot Interaction

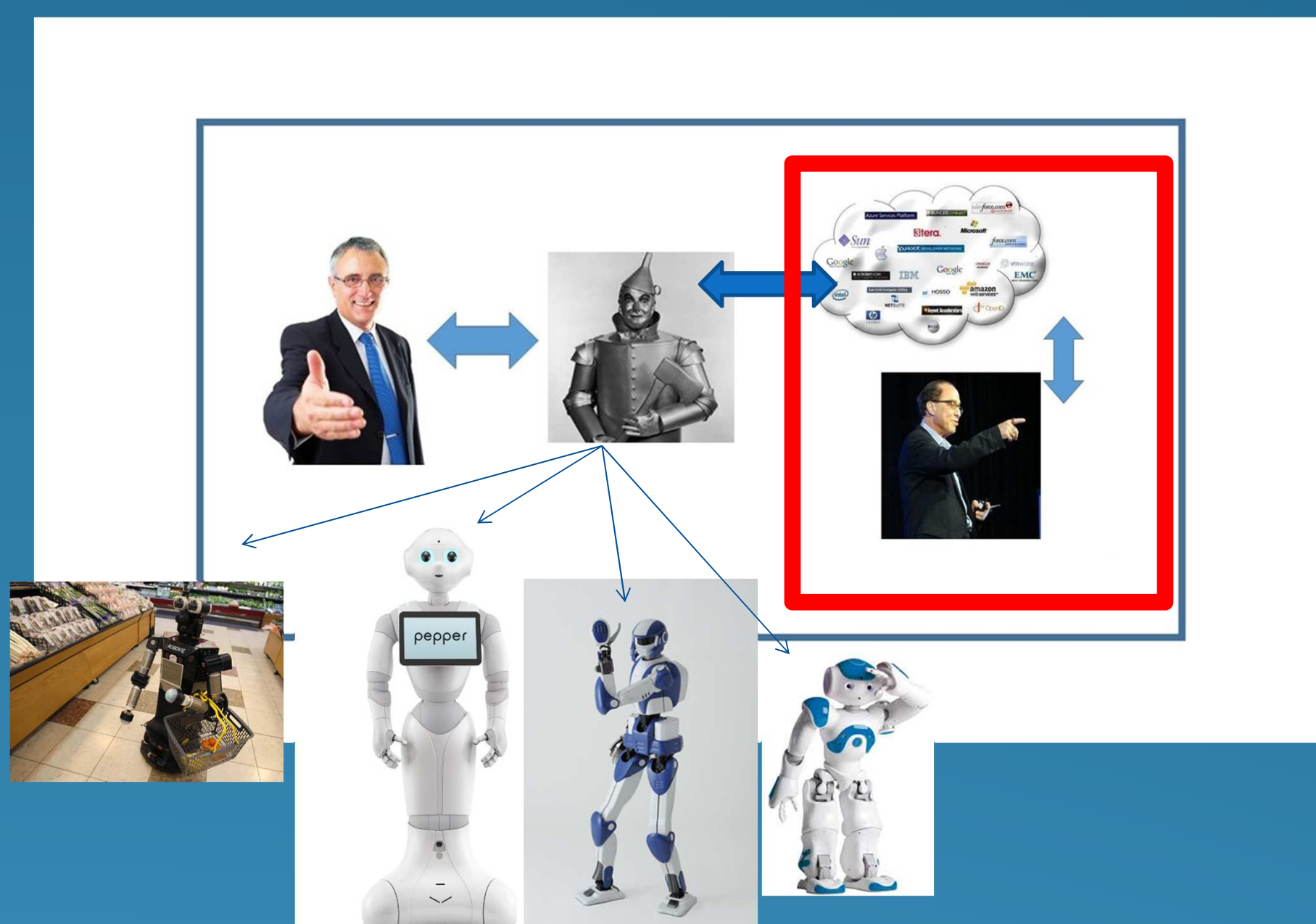
<http://apvvproject.webnode.com/>

Annotation

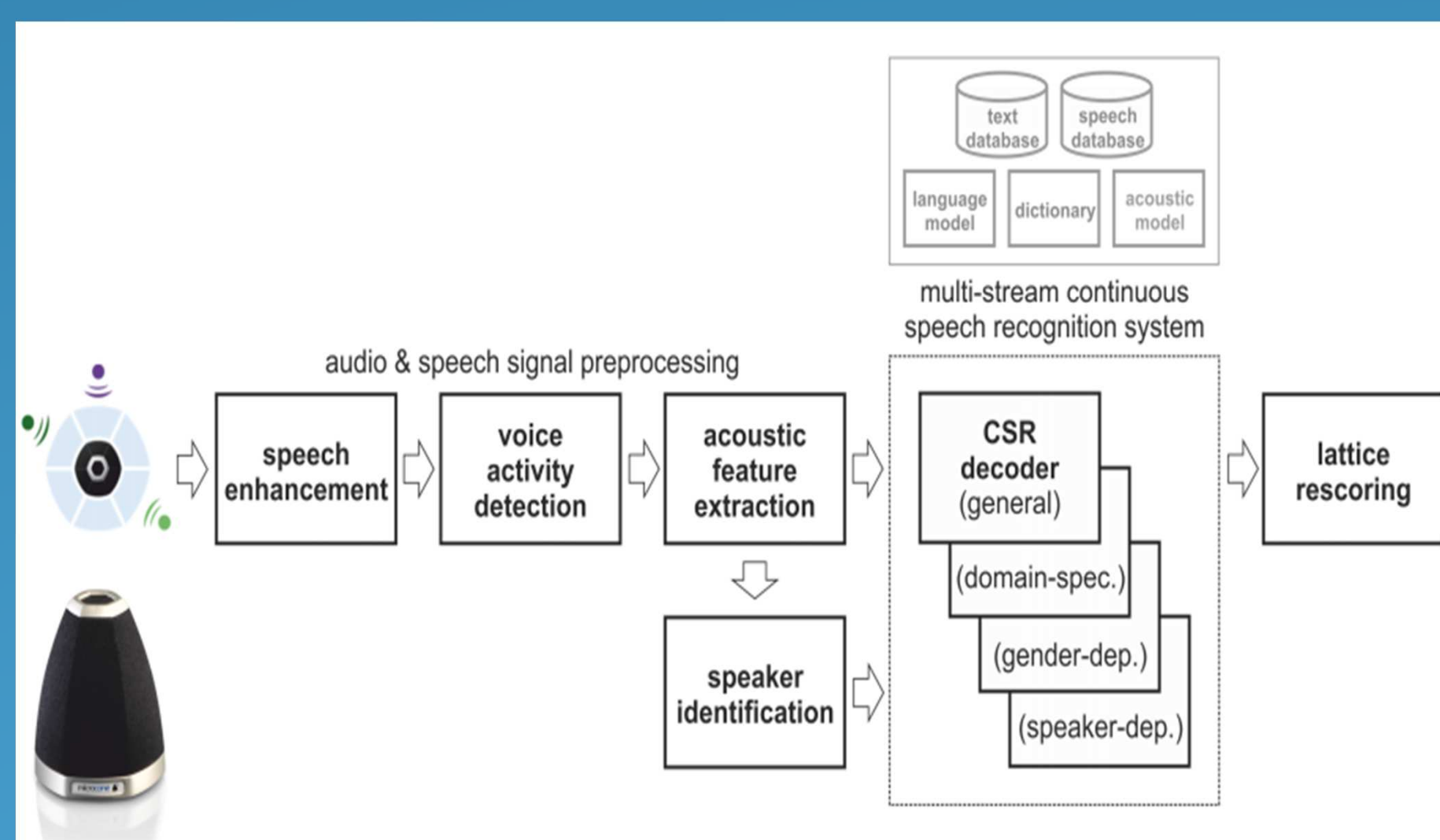
Project deals with *multimodal Human Robot Interaction*. *Cloud Computing* Technologies inspired a new domain called **Cloud Robotics**. Development of integrated programming environment for robotic systems in distributed approach give occasions for agent environment with learning abilities, incremental knowledge acquisition sharing for group of robots. The goal of this research is a study of artificial intelligent tools for intelligent robotics, a research in the area of *natural language processing* and also the study of *innovative software tools* for distributive software systems in *cloud environment*. The focus will be given also to *image processing*, *virtual reality* and *speech processing* in intelligent robotics. (2016-2020)

Topics:

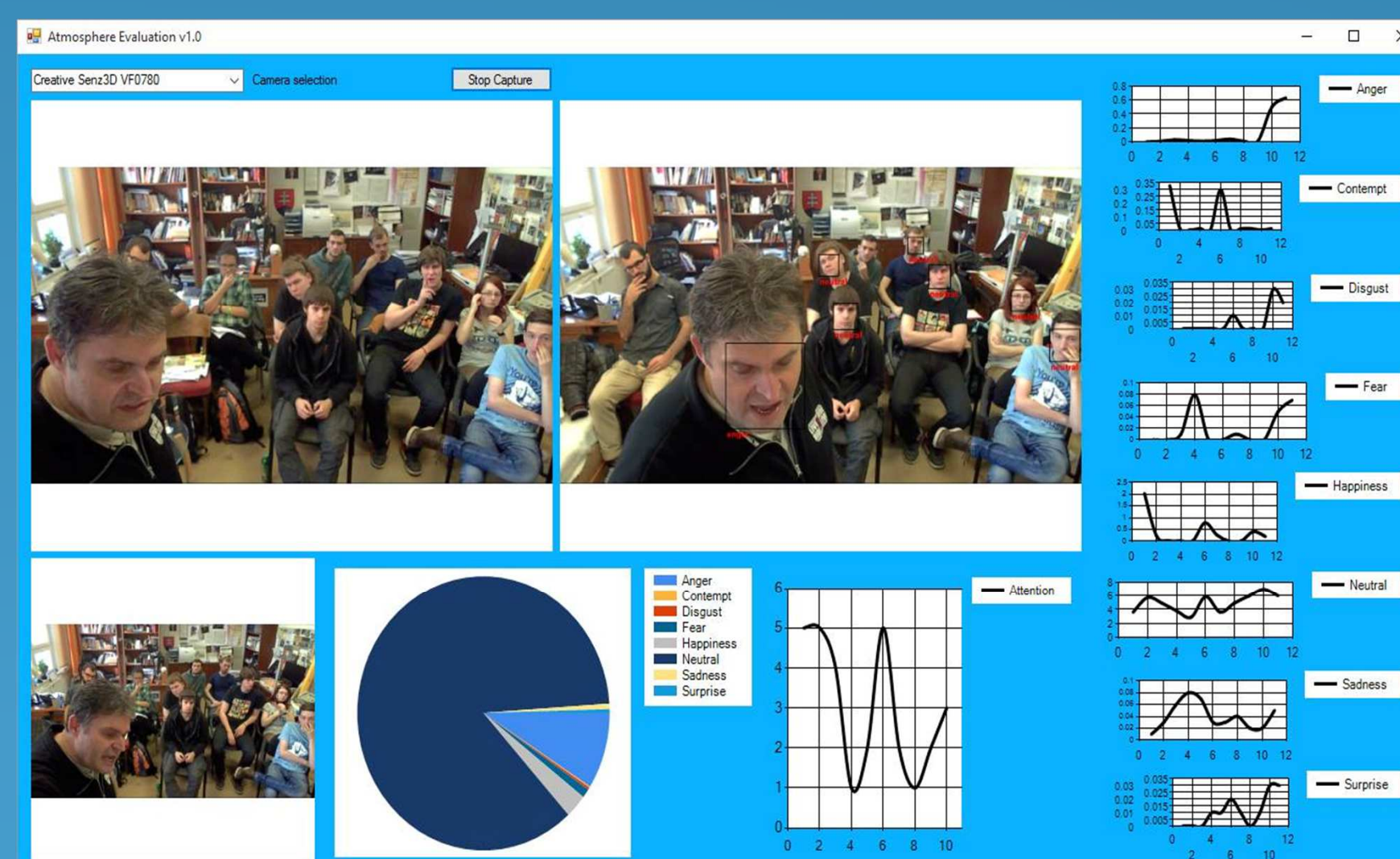
- Creation of a *personalized behavior model*
- Complex *teleoperational system* for HRI
- Study of *social networks*, their HRI role
- Programming environment for HCI with emphasis on *Human Centered Methods and Technologies* (HCT-T) with using AR
- Complete *VR chain* including 3D scan, print and stereoscopic visualization
- *Programming resources* of 3D interfaces
- Azure cloud collaborative programming
- ASR robustness in *noisy environments*, *large distance*, using *microphone arrays*, *emotional speech* & *Speech synthesis*



Mentor communicates through cloud of knowledge using *any* robot close to User



Robust speech recognition



Emotional analysis

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