



Review : Machine Learning in Agriculture

Presented By
Mr. Meechai Homchan
Mr. Khamxay Leevangtou



Machine Learning in Agriculture: Applications

- Crop management
 - Crop Quality
 - Disease Detection
 - Weed Detection
 - Yield Prediction



Machine Learning in Agriculture: Applications

Field conditions management



- Soil management
- Water management

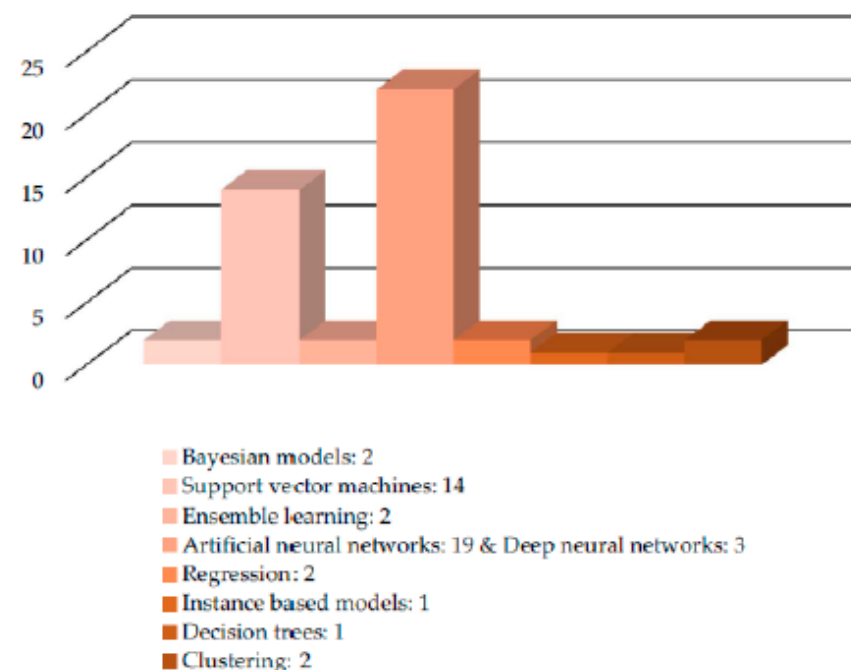
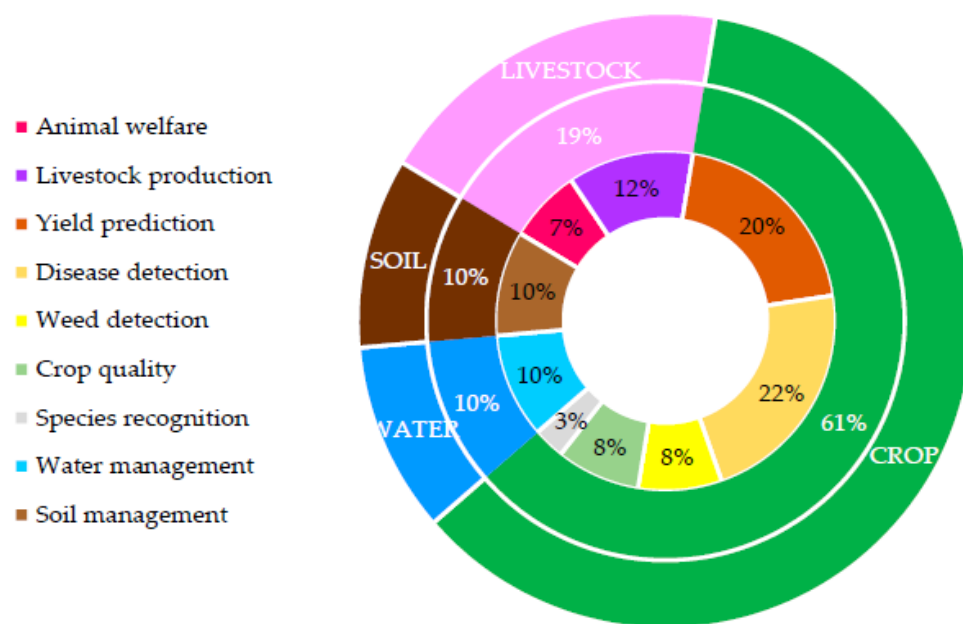


Species management

- Species Recognition
- Species Breeding

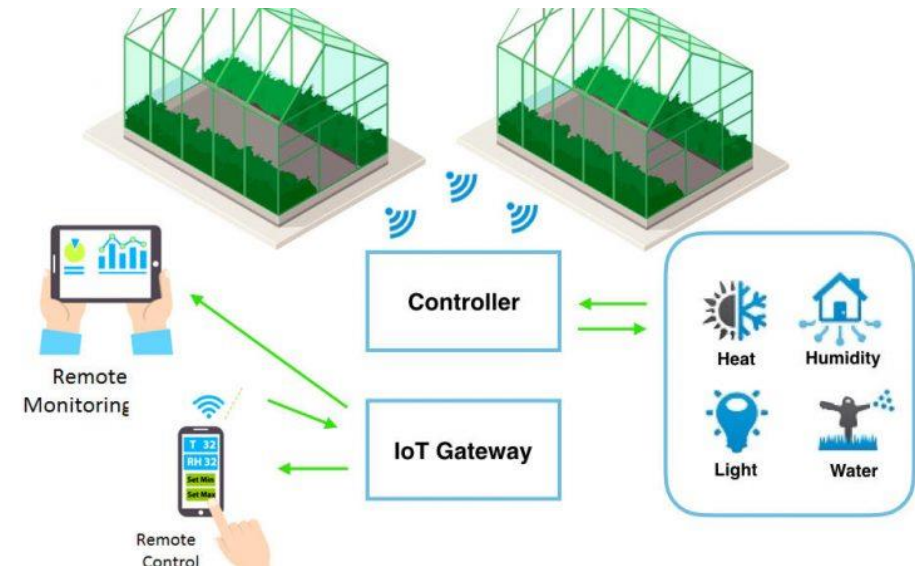
Machine Learning in Agriculture: A Review

Konstantinos G. Liakos ¹, Patrizia Busato ², Dimitrios Moshou ^{1,3}, Simon Pearson ⁴ 
and Dionysis Bochtis ^{1,*} 



Machine Learning in Agriculture: Applications

Greenhouse Climate Controller



DAILY TEMPERATURE OPTIMISATION IN GREENHOUSE BY REINFORCEMENT LEARNING

Marc Tchamitchian ^{*,1} Constantin Kittas ^{**}
Thomas Bartzanas ^{**} Christos Lykas ^{**}

Coordination Control of Greenhouse Environmental Factors

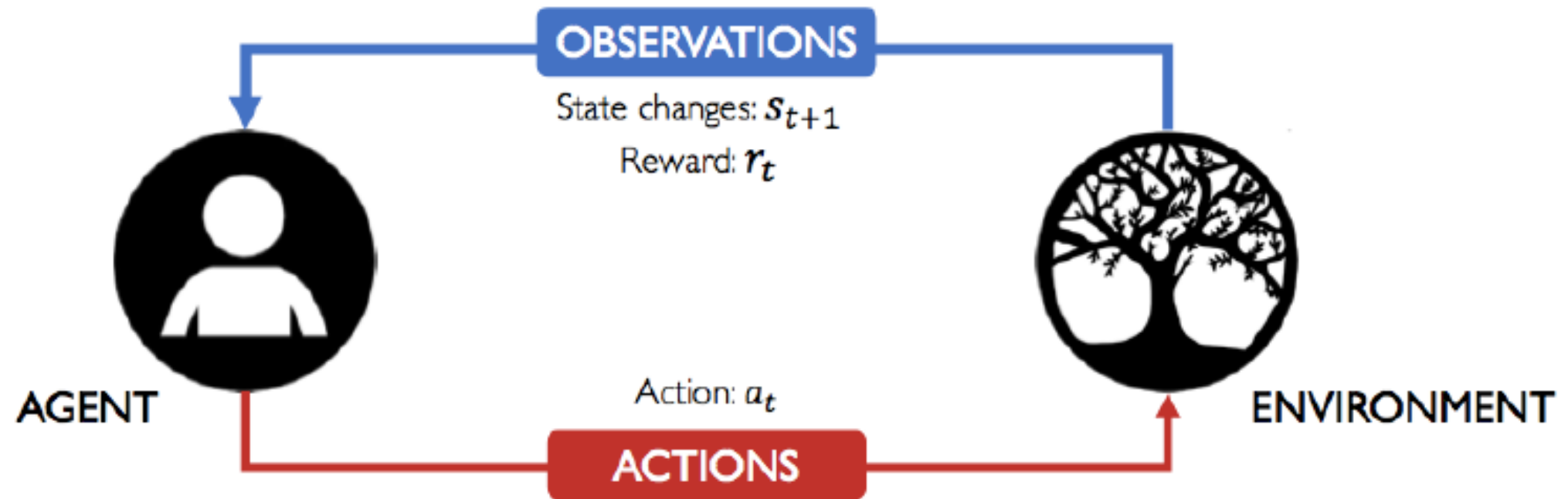
Feng Chen¹ Yong-Ning Tang² Ming-Yu Shen³

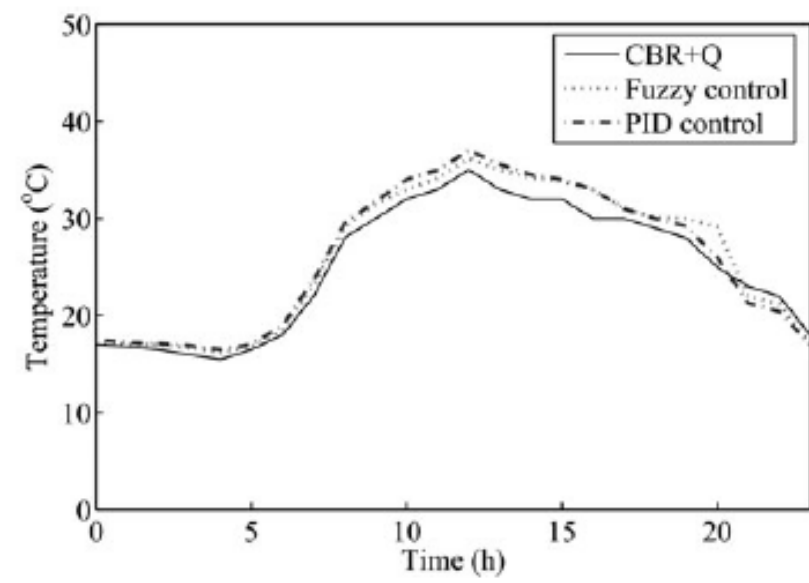
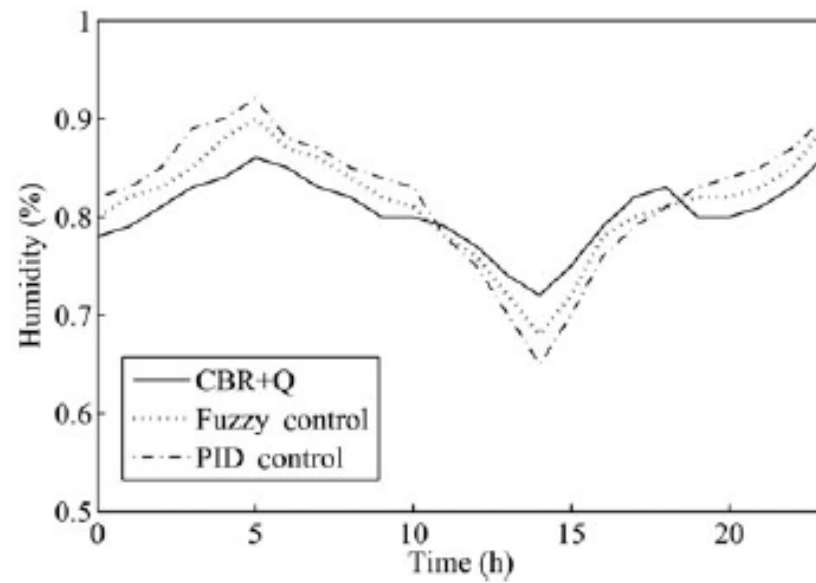
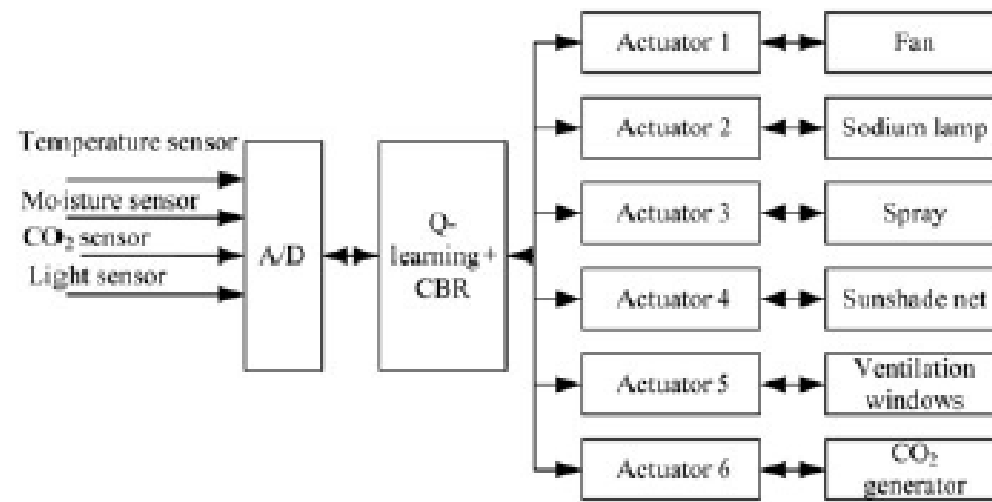
¹Department of Automation, University of Science and Technology of China, Hefei 230027, PRC

²School of Information Technology, Illinois State University, Normal IL 61790, USA

³School of Computer and Information Science, Hefei University of Technology, Hefei 230066, PRC

Reinforcement Learning





Machine Learning in Agriculture: Conclusion

- Precision Agriculture
- Automated Irrigation Systems



Thank You

Reference

- Konstantinos G. Liakos , Patrizia Busato, Dimitrios Moshou, Simon Pearson and Dionysis Bochtis (2018). Machine Learning in Agriculture: A Review.
- Feng Chen,Yong-Ning Tang and Ming-Yu Shen (2011). Coordination Control of Greenhouse Environmental Factors.
- Marc Tchamitchian, Constantin Kittas,Thomas Bartzanas and Christos Lykas (2005). DAILY TEMPERATURE OPTIMISATION IN GREENHOUSE BY REINFORCEMENT LEARNING