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MODELLI PROBABILISTICI PER LE DECISIONI

HAR Bayesian Network

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Indice

1	Abstract	2
2	Introduzione	2
2.1	Dominio di riferimento	2
2.2	Obiettivi dell'elaborato	2
2.3	Ipotesi e assunzioni	2
3	Conclusioni	3

1 Abstract

During the last 5 years, research on Human Activity Recognition (HAR)[1] has reported on systems showing good overall recognition performance. As a consequence, HAR has been considered as a potential technology for e-health systems. Here, we propose a machine learning based HAR classifier[2]. We also provide a full experimental description that contains the HAR wearable devices setup and a public domain dataset comprising 165,633 samples. We consider 5 activity classes, gathered from 4 subjects wearing accelerometers mounted on their waist, left thigh, right arm, and right ankle. As basic input features to our classifier we use 12 attributes derived from a time window of 150ms. Finally, the classifier uses a committee AdaBoost that combines ten Decision Trees. The observed classifier accuracy is 99.4

2 Introduzione

2.1 Dominio di riferimento

2.2 Obiettivi dell'elaborato

2.3 Ipotesi e assunzioni

3 Conclusioni

AAAA

Riferimenti bibliografici

- [1] Groupware project's human activity recognition.
- [2] Katia Vega Eduardo Velloso Ruy Milidiú Wallace Ugulino, Débora Cardador and Hugo Fuks. Wearable computing: Accelerometers' data classification of body postures and movements, 2012.