# Selected Topics of Pervasive Computing

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# Overview and Structure

30.10.2013  Organisational
30.10.3013  Introduction
06.11.2013  Classification methods (Basic recognition, Bayesian, Non-parametric)
13.11.2013  Classification methods (Linear discriminant, Neural networks)
20.11.2013  –
27.11.2013  –
04.12.2013  –
11.12.2013  Classification methods (Sequential, Stochastic)
18.12.2013  Activity Recognition (Basics, Applications, Algorithms, Metrics)
08.01.2014  Security from noisy data (Basics, Entity, F. Commitment, F. Extractors)
15.01.2014  Security from noisy data (Error correcting codes, PUFs, Applications)
22.01.2014  Context prediction (Algorithms, Applications)
29.01.2014  Networked Objects (Sensors and sensor networks, body area networks)
05.02.2014  Internet of Things (Sensors and Technology, vision and risks)

# Objectives

- Acquire detailed knowledge on selected tools and methods in Pervasive computing
  - General principle
  - Algorithms and implementation
  - Various input data sources
- Practical experience of the lecture topics in hands-on projects



$$V = \frac{4}{3}\pi r^3$$
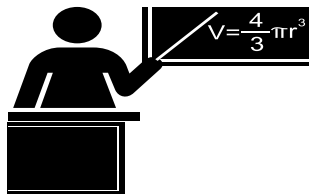
# Requirements and lecture material

Requirements to successfully complete the lecture :

- Interest
- Ability to work self-employed but in teams
- Ask !!! when you do not understand something
  - In the lecture
  - In the exercise
  - Via Email

Material :

- https://wiki.net.informatik.uni-goettingen.de/wiki/Selected_topics_in_Pervasive_Computing_(Winter_2013/2014)
  - Lecture slides
  - Additional information

# Organisation

Lecture : Wednesdays, 10:15 - 11:45

Exercises : Wednesdays, 16:15 - 17:45

- Every two weeks
- First exercise on November, 13th, 2013

Oral examination : Please approach me for an appointment

# Literature

- C.M. Bishop: Pattern recognition and machine learning, Springer, 2007.
- P. Tulys, B. Skoric, T. Kevenaar: Security with Noisy Data – On private biometrics, secure key storage and anti-counterfeiting, Springer, 2007.
- R.O. Duda, P.E. Hart, D.G. Stork: Pattern Classification, Wiley, 2001.
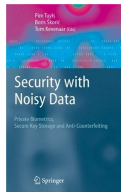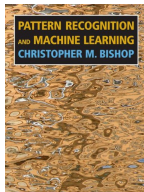
# Questions?

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