- **Submission**.
  Each student must work independently. Please send by e-mail a file called *Assignment1_Surname.zip* (where *Surname* is the surname of the student that submits the file) to both the addresses:

  - matteo.saveriano@tum.de
  - affan.pervez@tum.de

  This file should contain:

  - *Assignment1_Surname.pdf*, a *pdf* file containing the solution to all the exercises (see below for further informations)
  - The Matlab code in a subfolder called *Code*. Students can create any functions that they consider necessary to solve the problems.

  The submission deadline is on the 04th June, 2015 at 11:59pm.

  HW1_Surname.pdf.

  - Students need to provide a *pdf* file containing the solution to all the exercises. Students must clearly indicate in this file to which exercises and to which question the solutions refer to.

  - For *Exercise*1.$a - b$) report learned parameter values as well as optimal values of k.

  - For *Exercise*1.c) attach the required plots.

  - For *Exercise*2.$a - b$) report the learned parameter values for μ_s,σ_s,μ_b and σ_b.

  - For *Exercise*2.$c - f$) attach the resulting plots for *SampleImage.jpg* and *SampleImage2.jpg*.

  - For *Exercise*3.$a - b$) attach the resulting plots and a brief discussion on the results.

  Subfolder Code.

  - For *Exercise*1 provide a matlab function *Exercise*1.m. The input to this function is k and it's output is the cell array *par*.
  - For *Exercise*2 provide the matlab functions *ExtractCenterPixels.m*, *LearnModelParameters.m*, *EvaluateLikelihood.m*
  - For *Exercise*2 also provide a matlab function *Exercise*2.m. The input to this function should be an image and it should use all the functions which you have written for *Exercise*2 to generate the plot of Output images required in *Exercise*2.$c - f$)
  - For *Exercise*3 provide a matlab functions *Exercise*3_kmeans.m and *Exercise*3_nubs.m. The inputs to *Exercise*3_kmeans.m are the motion data, the initial cluster label and the number of clusters. You can't use the matlab function "kmeans". The inputs to *Exercise*3_nubs.m are the motion data and the number of clusters. The outputs of both function are the 3 plots required in *Exercise*3.$a - b$).