## 6.8 – Liver Segmentation From CT Datasets.

The task is to implement an image segmentation algorithm for liver segmentation, from CT datasets. You may develop your own algorithm or implement and evaluate one of the algorithms presented in [1]. The data and evaluation details can be found at "Segmentation of the Liver Competition 2007 (SLIVER07)" site: http://www.sliver07.org/

## References:

[1] Heinmann et. al, "Liver Segmentation from CT Datasets", IEEE Transactions on Medical Imaging, vol. 28, no. 8, August 2009, 1251-1265

[2] SLIVER07 http://www.sliver07.org/

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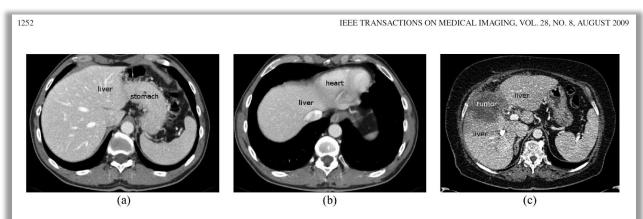


Fig. 1. Examples why liver segmentation is a challenging task. In the first two images, liver tissue has to be separated from adjacent organs stomach (a) and heart (b). The gray-values in all structures are highly similar, which makes boundary detection difficult without a-priori information about the expected shape in these regions. In the third image (c), the tumor should be segmented as part of the liver. However, there is a considerable intensity difference between both structures, which often leads to misclassification of the tumor as nonliver tissue.