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Article

Robust Single-Trial EEG-Based Authentication Achieved with a 2-Stage Classifier

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Supplementary Material

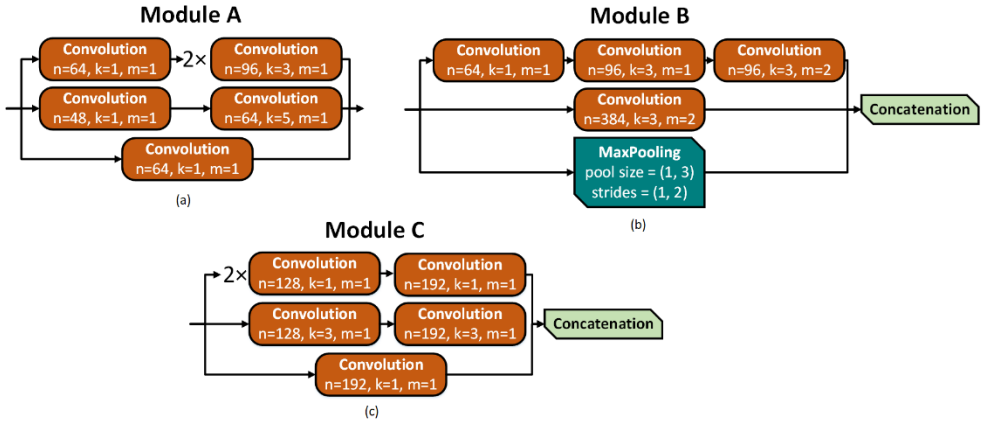

Figure S1: Modules A and C are intended for extending the number of feature maps, allowing the network to go deeper and increase performance. Module B is intended for the reduction of grid size. Modules A, B and C are only used in the inception-like NN.

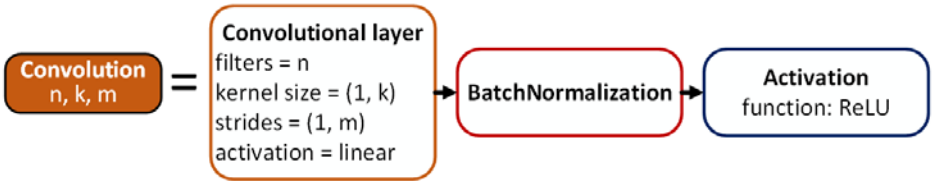

Figure S2: Convolution in the inception-like NN.

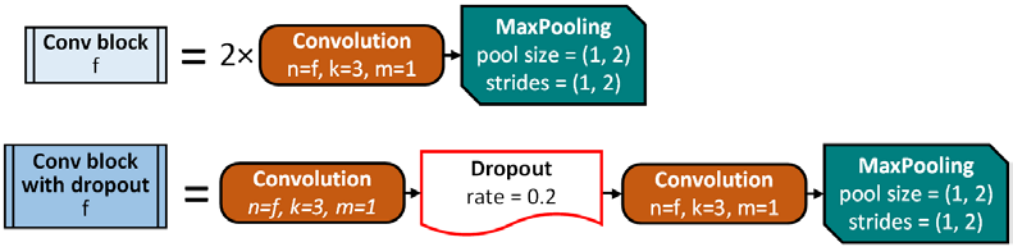

Figure S3: Structure of individual blocks of the VGG-like network.

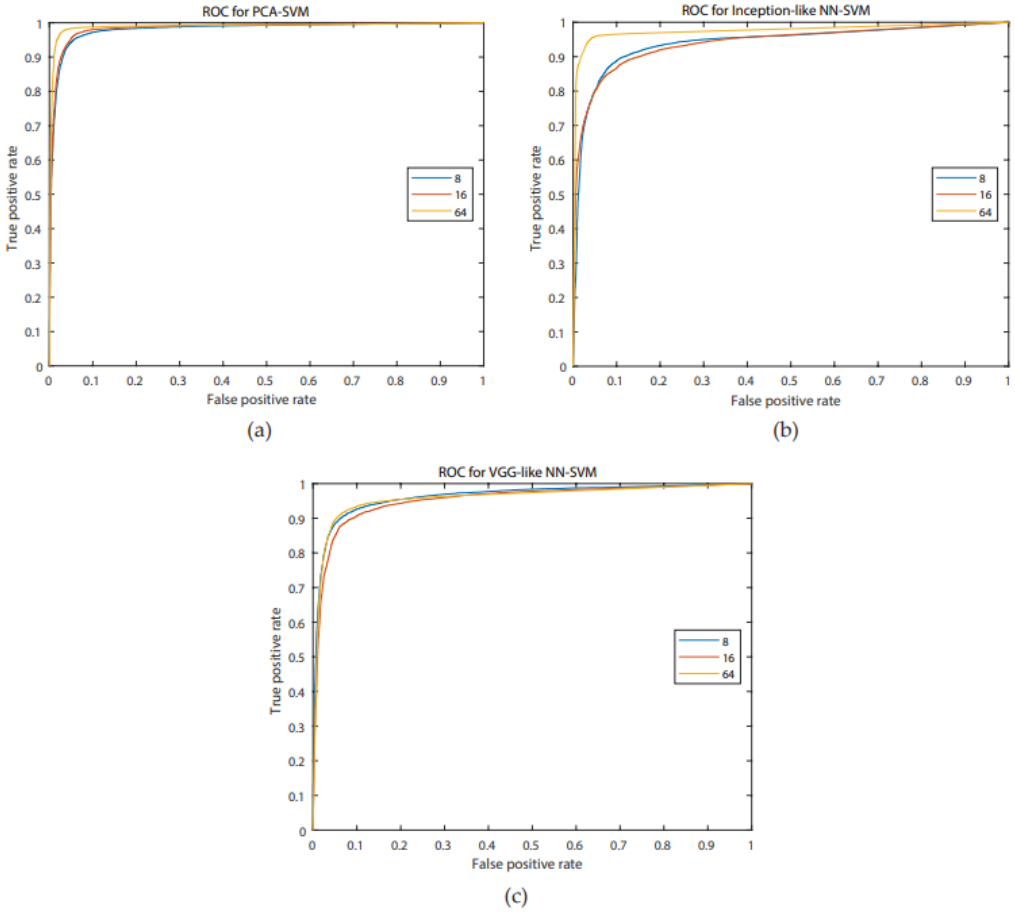

Figure S4. ROC curves for the 8 channels (**blue**), 16 channels (**red**), 64 channels (**yellow**) for FAR ranging from 0 to 1 for PCA-SVM (**a**), inception-like NN-SVM (**b**) VGG-like NN-SVM (**c**).

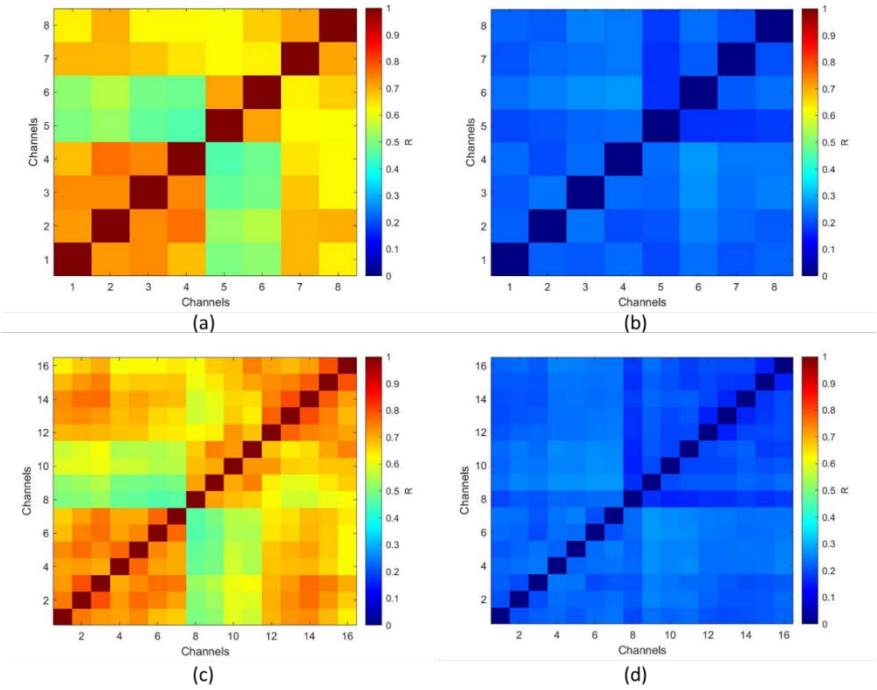

Figure S5: Mean cross-correlation of all features and standard deviation of the mean for 8 channels (**a**, **b**) and 16 channels (**c**, **d**).

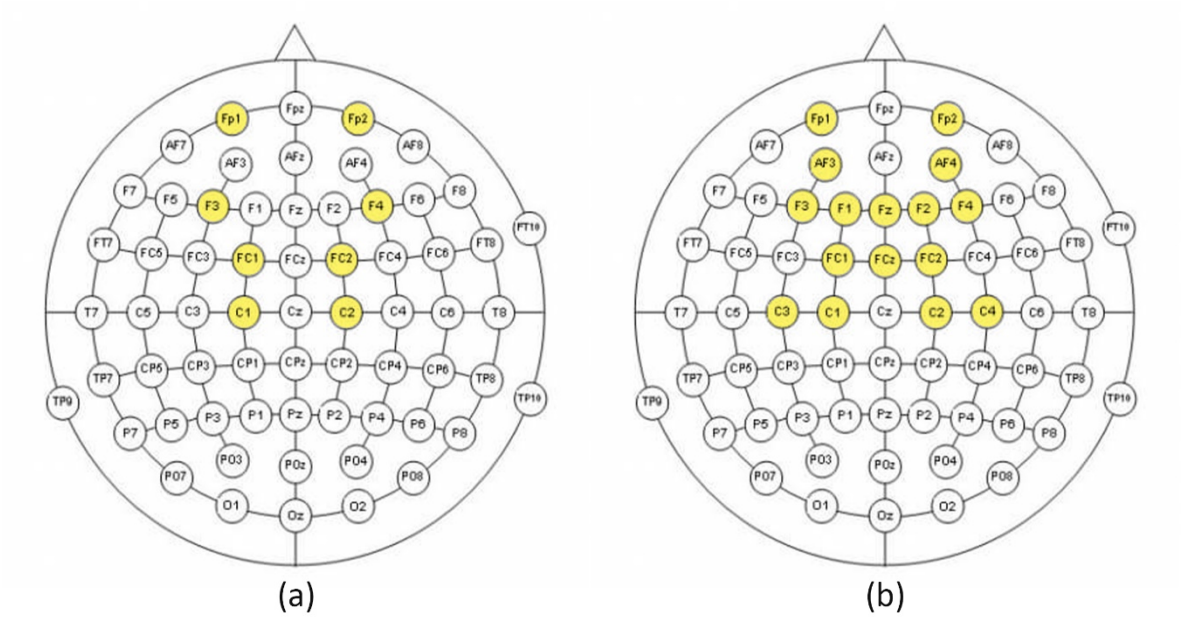

Figure S6: Representation of 8 (**a**) and 16(**b**) selected channels.