Case study: college

Customer requirement: To provide an alternative to RFID as a means of verification on entry to a school in Moscow, Russia.

Project: Smilart first created a test bed for its technology in a real-world environment. We chose a high school with hundreds of young kids (13-17 years old), teachers, service and security personnel. The system was such a success that upon learning of it, College of Communications No. 54 in Moscow jumped at the opportunity to install a similar system. For data analytics purposes and to compile real statistical information on usage preference, students and staff were each also provided with an RFID badge and then his or her face was introduced to the Smilart system. Everyone was given a choice: either use their face or their RFID badge for entry to the premises. To make the system more engaging for kids Smilart provided the installation with monitors for each checkpoint so kids could see themselves being identified by their faces.

Result: 91% of kids in the school database **preferred** to use their faces as an ID for entry. When interviewed they provided the following reasons:

*It works **faster** than the RFID badges*
*You **cannot forget** your face at home*
*It's **easier** to look into the camera than it is to go looking for the RFID badge in your ba*g

Technology utilized: The system uses proprietary face detection (FD) and face recognition (FR) algorithms that utilize GPUs (nVidia CUDA). The processing is done on an Intel CPU (i5 or better). The video cards used are the relatively cheap GTX-780s. Initially the cameras used were various models made by Arecont, but once we discovered the Basler ACE series we decided to switch in favor of performance (FPS, image quality) and price.

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On the right: Live screenshot provided by the customer utilizing Smilart's software solution to identify students as they access the school entryway.