

Assignment 4: voice harmonizer

Description:

A vocal harmonizer pitch shifts the input voice track and add it back to the original un-pitched audio to create a two / three / or more note harmony.

Create a vocal harmonizer and an interface to control it.

Using SuperCollider, use the microphone as input and add one or two voices creating an harmonization. For example, you can use SuperCollider implementation of pitch shifting. Moreover, you can add any effect to the voice.

For controlling the parameters of the harmonization or of the effects implement a user interface using OSC communication protocol. For the user interface you can use Processing, JUCE or any other device (smartphone with OSC apps, Arduino, Kinect, ...).

Be creative, feel free to combine different components for visualization and user interaction and control.

Output:

- a brief presentation and demonstration of your work (max 5 minutes) that will be given to the class
- a more detailed report in which you illustrate your system and its implementation (max 5 pages).
- a link to a repository containing the code (e.g. on GitHub) with minimal comments.