

Abstract

The rapid growth of the technology makes various field of study to get the benefit from it. Nowadays in the music industry, many applications that can help the productivity of the musicians emerged. That is—of course—attracting the public attention to explore and study about music. That's because technology offers simplicity and usability. But, it is not easy to study music. Music has its own difficulty level. Therefore, it is worth to try to create an application that can help others to learn how to improvise music.

The application can improvise and build a melodic structure. Users can use their music as an accompaniment to the application and they can adjust this application's parameter to fulfill their preferences. The system will improvise itself and create music. The improvisation process will be implemented using a harmony search algorithm. Then users can enjoy the music created by the improvisation process or just want to study the music.

The result of this experiment stated that the system built using harmony search produced improvisation that is acceptable by the respondents from the survey conducted.

Keywords: *harmony search, musical improvisation*