

ABSTRAK

Irwantoro:

Tugas Akhir

Software Pendukung Bermain Gitar

Pada Tugas Akhir ini dirancang dan dibuat sebuah *software* pendukung bermain gitar menggunakan aplikasi *Optical Character Recognition* (OCR) *Software* ini dibuat menggunakan *program* Delphi 5.0 dan sebagai databasenya digunakan *program* Microsoft SQL Server 7.0.

Aplikasi OCR ini digunakan untuk mengenali karakter-karakter yang terdapat dalam buku nyanyian yang telah discan. Proses pengenalan karakter pada *software* ini menggunakan metode *Template Matching*, dimana cara kerja metode ini adalah melakukan *pattern recognition* pada karakter yang ingin dikenali dan membandingkan antara *input pattern* dengan *template* yang disimpan. Ada dua jenis proses *recognition* yang diterapkan dalam pembuatan Tugas Akhir ini yaitu *Image Correlation* dan *Feature Extraction*. *Image Correlation* melakukan pengenalan karakter dengan cara membandingkan gambar *input pattern* dengan gambar *template*. Sedangkan *Feature Extraction* melakukan pengenalan karakter dengan cara membandingkan fitur *input pattern* dengan fitur *template*.

Teks sebagai hasil pengenalan karakter menggunakan OCR tadi dikenali *accord-accord* yang terdapat di dalamnya dan ditampilkan gambar cara penempatan jari-jari pada gitar sesuai dengan *accord-accord* yang ada. *Software* ini juga dapat mengeluarkan suara petikan-petikan gitar sesuai dengan *accord* yang ditampilkan. Dengan demikian pembuatan Tugas Akhir ini digunakan untuk membantu para pemain gitar pemula dalam mempelajari *accord-accord* gitar yang ada.

Kata kunci:

Software Pendukung Bermain Gitar, *Optical Character Recognition*, *Accord*

ABSTRACT

Irwantoro:

Thesis

Supporting Software for Guitar Playing

This thesis is planned and it is made a supporting software for guitar playing with application of Optical Character Recognition (OCR). This software is made by using Delphi 5.0 and the database of this software is made by using Microsoft SQL Server 7.0.

The application of OCR is used to recognizing characters in song book which the book has been scanning. The character recognition process of the software use Template Matching as a method to recognize a character, which this method does pattern recognition to a character and it compares an input pattern with the template. There are two kinds of recognition processes that is applied in this thesis; such as: Image Correlation and Feature Extraction. Image Correlation recognize a character by comparing input pattern's picture with template's picture. Feature Extraction recognize a character by comparing input pattern's feature with template's feature.

Text as result of character recognition use OCR, it is recognize to find accords inside it and to display a picture of finger's position in guitar which it is appropriate with accords. Moreover, this software also can produce a sound from playing of guitar which it is appropriate with the accord's presentation. So, this thesis is used to helping the beginner's guitar player in learning more about the guitar's accord.

Key words:

Supporting Software for Guitar Playing, Optical Character Recognition, Accord

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