Kecerdasan Buatan

Studi Kasus Logika Fuzzy: SciKit-Fuzzy

Oleh Politeknik Elektronika Negeri Surabaya

2021

Politeknik Elektronika Negeri Surabaya
Departemen Teknik Informatika dan Komputer

Konten

- Pengenalan SciKit-Fuzzy
- Instalasi SciKit-Fuzzy
- Penggunaan SciKit-Fuzzy
- Implementasi kasus dengan Scikit-Fuzzy

https://pythonhosted.org/scikit-fuzzy/

Pengenalan SciKit-Fuzzy

- **SciKit-Fuzzy**

  Scikit-Fuzzy is a collection of fuzzy logic algorithms intended for use in the SciPy Stack, written in the Python computing language.

  This SciKit is developed by the SciPy community.
- **Homepage and package documentation**

  http://pythonhosted.org/scikit-fuzzy/
- **Source, bugs, and development**

  http://github.com/scikit-fuzzy/scikit-fuzzy
- **Gitter.IM**

  https://gitter.im/scikit-fuzzy/scikit-fuzzy
- **Mailing List**

  http://groups.google.com/group/scikit-fuzzy

Instalasi SciKit-Fuzzy

Pre-built installation

- On systems that support setuptools, the package can be installed from the Python packaging index using

```
easy_install -U scikit-fuzzy
```

- or

```
pip install -U scikit-fuzzy
```

Instalasi SciKit-Fuzzy

Installation from source

- Obtain the source from the git-repository at http://github.com/scikit-fuzzy/scikit-fuzzy by running:

```
git clone http://github.com/scikit-fuzzy/scikit-fuzzy.git
```

- in a terminal (you will need to have git installed on your machine).
- If you do not have git installed, you can also download a zipball from https://github.com/scikit-fuzzy/scikit-fuzzy/zipball/master.

Getting started

- `scikit-fuzzy` is an fuzzy logic Python package that works with numpy arrays. The package is imported as `skfuzzy`:

```
>>> import skfuzzy
```

- though the recommended import statement uses an alias:

```
>>> import skfuzzy as fuzz
```

- Most functions of skfuzzy are brought into the base package namespace. You can introspect the functions available in fuzz when using IPython by:

```
[1] import skfuzzy as fuzz
[2] fuzz.
```

- and pressing the Tab key.

Tugas

- Pelajari isi https://pythonhosted.org/scikit-fuzzy/
- Pelajari topik “The Tipping Problem”
  - https://pythonhosted.org/scikit-fuzzy/userguide/fuzzy_control_primer.html
- Develop “Fuzzy Control Systems: The Tipping Problem”
  - https://pythonhosted.org/scikit-fuzzy/auto_examples/plot_tipping_problem_newapi.html#example-plot-tipping-problem-newapi-py
- Develop “The Tipping Problem - The Hard Way”
  - https://pythonhosted.org/scikit-fuzzy/auto_examples/plot_tipping_problem.html
- Buat file ppt dari tugas ini dan paparkan hasilnya di kelas.
- Isi:
  - Deskripsi problem
  - How to develop
  - Fungsi-fungsi dari scikit-fuzzy yang digunakan apa saja dan apa fungsinya.
  - Deskripsi output

Referensi

- https://pythonhosted.org/scikit-fuzzy/

bridge to the future

http://www.eepis-its.edu