

1. Install mpich-4.0

```
./configure --prefix /home/users/ckshita/mpich-3.4.2/mpich-install/ --with-device=ch4:ucx
```

Configure, make, install

(There are other installation instructions inside the readme file of mpich.)

2. Add mpich library to path

(Add gdal and mpich to path)

```
export
```

```
LD_LIBRARY_PATH="{your_mpich_install_path}/lib":$LD_LIBRARY_PATH
```

3. Create new conda environment with python 2.7

Command: `conda create -n new_environment python=2.7`

4. Activate the environment

Command: `conda activate new_environment`

5. Install GDAL-2.2.2

- There is a readme file inside `gdal-2.2.2/swig/python`. You can read this file for installation instructions.
- Change Path to: `gdal-2.2.2/swig/python`
- Build:
 - Command: `python setup.py build`
- Install:
 - Command: `python setup.py install`
- Check installation: `which gdalinfo`
- Change the path to the project folder path again.
- Add to path:

- Command: export
LD_LIBRARY_PATH={your_gdal_path}/lib:\$LD_LIBRARY_PATH

6. Install mpi4py==3.0.3

(In desktop, both manual installation and pip installation work.)

Command: pip install mpi4py==3.0.3

7. Install requirements.txt

Command: pip install -r requirements.txt

8. Install anuga== 2.0

Command: pip install anuga==2.0.0

9. Install Crest

- Change path to: cresth/crest
- Install:
 - Command: python setup.py install

10. Install pypar

- Change path to: pypar_2.1.4_94/source
- Install:
 - Command: python compile_pypar_locally.py
 - Command: python setup.py install
- Did not add python path in my PC. But had to add pythonpath for pypar
Install pcre=8.45
- Might have to install pcre=8.45 using conda
 - Command: conda install pcre=8.45

11. Run model_runs.py

Command: `mpirun -n 2 python model_runs.py`

12. Changing order of importing packages:

Sometimes, you might have to change the order of importing `pypar` and `mpi4py`.