



News from TESP_y

Releases: v0.4.0 to v0.4.3

- Implementation of generic exergy analysis
- Automatic generation of model-report
- Easier access to simulation data through implementation of respective DataFrames
- External user defined equations
- New API respecting PEP guidelines
- Easier specification of characteristic functions
- Improved data output for fluid property plotting
- New logo :)

Publications related to TESPpy



- Cai, W., Wang, F., Chen, S., Chen, C., Liu, J., Deng, J., Kolditz, O., Shao, H. (2021). "Analysis of heat extraction performance and long-term sustainability for multiple deep borehole heat exchanger array: A project-based study". Applied Energy 289, 116590. doi: 10.1016/j.apenergy.2021.116590.
- Pfeiffer, W. T., Witte, F., Tuschy, I., Bauer, S. (2021). "Coupled power plant and geostorage simulations of porous media compressed air energy storage (PM-CAES)". Energy Conversion and Management.¹
- Witte, F., Meier, J., Hofmann, M., Tuschy, I.. "Implementing exergy analysis for energy conversion systems into the Python-based framework TESPpy".²
- Chen, C., Witte, F., Tuschy, I., Kolditz, O., Shao, H.. "Parametric Optimization and comparative Study of an Organic Rankine Cycle Power Plant for two-phase Geothermal Sources".³
- others?

¹submitted

²work in progress

³work in progress

Using tespy

- ANGUS II: Integration of subsurface storage technologies in the transformation the energy supply system.
- SWSH: Integration of solar thermal heating in regional heat supply systems.
- QUARREE100: 100 % regenerative district energy supply.
- ENaQ: Energetisches Nachbarschaftsquartier Fliegerhorst Oldenburg
- Spie Oil & Gas Services
- IDEAS 2020: Novel building Integration Designs for increased Efficiencies in Advanced climatically tunable renewable energy Systems
- NEMoGrid: New Energy Business Models in the Distribution Grid
- others?