

Ementas das Disciplinas de Tópicos do Programa de PLANEJAMENTO DE SISTEMAS ENERGÉTICOS

1º Semestre de 2020

PE180 S- Tópicos Especiais em Planejamento Energético: Modelagem, Simulação e Otimização de Sistemas Térmicos

Docente: Carlos Eduardo Keutenedjian Mady

Ementa:

- (1) Engenharia de projetos / Projetos de sistemas que funcionam;
- (2) Tópicos em engenharia econômica;
- (3) Ajustes de curvas (interpolação exata e regressão linear);
- (4) Relações Termodinâmicas (ajustes de propriedades termodinâmicas);
- (5) Relações Termodinâmicas;
- (6) Modelagem de equipamentos térmicos (trocadores de calor, separação, bombas, compressores, dentre outros).
- (7) Simulação de sistemas.
- (8) Otimização (Multiplicadores de Lagrange, Programação Dinâmica, Métodos de Buscas).
- (9) Simulação em regime permanente de sistemas térmicos integrados (ciclos, evaporadores, sistemas de ar condicionado, dentre outros).
- (10) Comportamento dinâmico de sistemas térmicos integrados (abordagem analítica e numérica).

PE 182J - Tópicos Especiais em Planejamento de Sistemas Energéticos III - Sustentabilidade, Mudanças climáticas e Direitos humanos

Docente:

Profa. Dra. Sonia Regina da Cal Seixas

Ementa:

Revisão teórica dos conceitos de sustentabilidade, mudanças climáticas e Agenda 2030. Considerações interdisciplinares sobre os conceitos e suas inter-relações com os direitos humanos na sociedade contemporânea.

Bibliografia:

- (1) Discutindo os conceitos de sustentabilidade e mudanças ambientais: relações, interações e implicações
Shue, H (2018) Climate Surprises: Risk Transfers, Negative Emissions, and the Pivotal Generation. Available at SSRN: <https://ssrn.com/abstract=3165064> or <http://dx.doi.org/10.2139/ssrn.3165064>
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- Kumar N (2018) Cities, Climate Change, & Health Equity - Wellesley Institute, Toronto, ON, Canada Available: <http://www.wellesleyinstitute.com/wp-content/uploads/2018/06/Cities-Climate-Change-Health-Equity-WIJune-2018-fv.pdf>
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- (2) Mudanças climáticas e eventos extremos

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Ciplet, D, Roberts, J T (2017) Climate change and the transition to neoliberal environmental governance. *Global Environmental Change* 46 (2017) 148–156, DOI 10.1057/s41286-017-0032-z

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(3) Sustentabilidade e direitos humanos: perspectivas para a sociedade contemporânea

Piovesan, F (1998). A constituição brasileira de 1988 e os tratados internacionais de proteção dos direitos humanos. In: Marcílio, M L; Pussoli, L (Coords.). *Cultura dos direitos humanos*. São Paulo: LTr :133-151

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development goals by their energy inter-linkages *Environ. Res. Lett.* 13 (3) <https://doi.org/10.1088/1748-9326/aaafe3>

III. Referencias complementares

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