

Il candidato illustri le librerie principali di Python per l'analisi dei dati da database.

Il candidato prepari una tabella in excel con una misurazione simulata con dati casuali nei giorni dal 1-1-2020 al 31-1-2020, poi calcoli il valore medio della misurazione nel mese.

Legga e traduca:

With the increasing use of volatile renewable energies, the requirements for building automation and control systems (BACS) are increasing. Load shifting within local energy systems stabilizes fluctuations in the grid and can be triggered by price signals. The energy purchase can thus be considered and solved as an optimal control problem. Classical approaches, often based on the optimization of mathematical models, are uneconomical in many cases, due to the high effort involved in the model creation. Algorithms from the field of Reinforcement Learning (RL), on the other hand, have a high potential for the automation of energy system optimization, due to their model-free and data-driven characteristics. However, there is still a lack of studies that examine algorithms for BACS-related applications in a structured way.



Il candidato illustri le librerie principali di Python per la visualizzazione di risultati di analisi da database.

Il candidato prepari una tabella in Excel con una misurazione simulata con dati casuali nei giorni dal 1-1-2020 al 31-1-2020, poi predisponga un grafico per mostrare l'andamento della misurazione nel tempo.

Legga e traduca:

While real monitoring data are used as exogenous influences, the thermal dynamics of the cooling network are simulated. With the learned policies, flexibility in the network is used which leads on average to weekly cost savings of 14 %, compared to direct load coverage. Our results suggest that, under certain conditions, RL is a suitable alternative to established methods. However, we also acknowledge that there are still research questions to address before RL can be applied in real BACS. Ó2020 Elsevier B.V. All rights reserved