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Manual de Utilizador/Técnico do Testador de Baterias

Projeto de Conversores Aplicados às Energias Renováveis – Docente da Cadeira: Prof. Victor Antunes

Realizado por: Tiago Miguel Andrade Cabrita, nº201600259

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# 1. Introdução

- Overview: Provide a brief introduction to the Python GUI application, including its purpose and main features.

- System Requirements: Specify the hardware and software requirements needed to run the application.

## 1.1 Overview

Este manual tem como objetivo explicar como montar e usar o sistema de teste de células/baterias no âmbito do projeto da cadeira de Projeto de Conversores Aplicados às Energias Renováveis, desenvolvido pelo aluno Tiago Cabrita. Também será esclarecido como os componentes do mesmo funcionam, para que o professor e/ou o(s) próximo(s) aluno(s) da cadeira possam utilizar e/ou melhorar futuramente.

O sistema desenvolvido tem como objetivo proporcionar um método simples de teste de uma célula/bateria. Durante o teste, são recolhidas várias informações, que serão depois processadas pelo algoritmo do sistema para fornecer um conjunto de resultados acerca do estado da bateria ao utilizador. Cabendo apenas ao utilizador conectar a célula que pretende testar e usar a interface gráfica que conecta o sistema.

## 1.2 System Requirements

Para executar o software, é necessário verificar se o computador utilizado atende a todos os seguintes requisitos:

Sistema Operacional: Sistemas Windows 10, macOS 11, Linux Ubuntu 20.04;

Versão do Python: Python 3.7 ou posterior;

Dependências Adicionais: pyserial, matplotlib, numpy.

IDE (recomendação pessoal): Visual Studio Code, PyCharm;

## 1.3 Document Structure

[Provide a brief overview of the document structure and how the manual is organized.]

This user/technical manual is designed to guide you through the installation, usage, and troubleshooting of [Application Name]. The document is organized into the following sections:

Introduction: Provides an overview of the application and system requirements.

Getting Started: Guides you through the installation process and introduces the application's user interface.

Application Features: Details the features and functionalities of the application.

Troubleshooting: Offers solutions to common issues you may encounter.

Frequently Asked Questions (FAQs): Provides answers to commonly asked questions about the application.

Appendix: Includes a glossary of terms, credits, and version history.

[Note: Customize the document structure and section names based on your specific manual.]

[Optionally, you can also mention any disclaimers, copyrights, or legal notices pertaining to the application or its usage.]

# 2. Getting Started

- Installation: Guide the user through the installation process of the application.

- Launching the Application: Explain how to launch the application and access its main interface.

- User Interface Overview: Describe the various elements and controls in the GUI interface.

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# 3. Application Features

In this section, describe each of the application's features one by one. For each feature, include the following details:

- Feature Name: Clearly state the name or purpose of the feature.

- Description: Provide a concise description of what the feature does.

- Usage Instructions: Explain how to use the feature and its functionalities.

- Example: Provide a practical example or scenario to illustrate the feature in action.

- Unfinished Feature: Mention any unfinished or incomplete aspects of the feature.

- Recommended Modification: Suggest possible modifications or enhancements to the feature based on user needs or preferences.

Repeat this structure for each feature in your application.

# 4. Troubleshooting

- Common Issues and Solutions: Address common problems that users may encounter and provide step-by-step solutions.

# 5. Frequently Asked Questions (FAQs)

- Compile a list of frequently asked questions about the application and provide clear and concise answers.

# 6. Appendix

- Glossary of Terms: Include a glossary of technical terms used in the manual.

- Credits: Acknowledge any external resources, libraries, or contributors.

- Version History: Document the version history of the application, highlighting changes and updates made in each release.

Remember to adapt and customize this structure to fit your specific Python GUI application. Provide clear instructions, screenshots, and code snippets where necessary to aid users in understanding and utilizing the application effectively.