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|  | GTIIT_EHS_ISO file | File No.: 文件编号： | GTIIT_EHS_02_13 |
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| File name 文件名 | Electrical Safety 用电安全 | | |

Approval process

审批过程

| | Name 姓名 | Title 职务 |
|---------------------------|---|--|
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| Approved by 批准人 | | Campus Safety Committee; |

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Relevant departments (select relevant departments with a “√”)

相关部门 (用√勾选相关部门)


| | | | | | |
|--------------------------------|---|--------------------------|---|---------------------|---|
| Construction Dept. 校园建设部 | √ | Operation Dept. 校园运营部 | √ | H.R. Dept. 人力资源部 | √ |
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Relevant documents 相关文件

No无

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1. Purpose 目的

In order to standardize the safety management of electricity safety use in campus and construction projects, and prevent electric shock accidents or equipment electrical failures happens during dialy operation or maintenance.

规范学校校内及建设施工项目用电安全管理，防止在操作、维修过程中发生人员触电事故或设备电气故障。

2. Scope 范围

The provisions of this document apply to the operation and maintenance of all electrical equipment within the GTIIT, as well as the safety of electricity use in offices and projects.

本文件规定适用于广东以色列理工学院内所有电气设备操作、维护及办公室和项目用电安全。

3. Terminology 术语

Electrical installation: A combination of several interconnected electrical equipment in a certain space or place. Such as: transformers, power distribution cabinets and internal components.

电气装置：一定的空间或场所中若干互相连接的电气设备的组合。如：变压器、配电柜及内部构件。


Electric equipment: equipment powered by electricity.

电动设备：以电为能量驱动的设备。

Electrical hazard: refers to the electrical injury that may exist in school construction projects, such as:

电气危害：是指学校建设施工项目可能存在的电气伤害，例如：

- Electric shock and burns caused by contact;
因接触引起触电和烧伤;
- Arc burn

| | | | |
|---|---|--------------------------|-----------------|
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电弧烧伤；

- Fire or explosion caused by arc or short circuit;
电弧、短路引起火灾或爆炸；
- The potential harm caused by the electric shock caused the human body to fall and the equipment is suddenly stopped after power failure.
电击造成人体跌落及设备断电突然停止时的潜在危害等。


4. Responsibility 职责

Campus Cconstruction Department 校园建设部

- Responsible for the inspection and maintenance of electrical installations, electrical equipment, and office electricity in campus construction projects.
负责学校建设施工项目电气装置、电动设备以及办公室用电的检查、维护。
- Organize regular electricity safety inspections for campus construction projects.
组织学校建设施工项目定期用电安全检查。
- Ensure that the electrical workers in the project is certified and work strictly in accordance with relevant electrical standards or operating procedures.
保证项目电工作业人员持证上岗，并严格按相关电气标准或操作规程操作。

Campus EHS office 安全办公室

- Supervise the implementation of relevant laws, regulations, and standards for school construction projects.
审核用电相关法律、规范、学校建设施工项目标准的执行情况。
- Provide necessary electrical safety training for construction projects.
提供施工项目必要的电气安全培训。
- Assist and support the campus construction department in conducting electricity hazard analysis of school construction projects and selection of labor insurance supplies.

| | | | |
|---|---|--------------------------|-----------------|
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| | | Effective date: 生效日期: | 2025-12-01 |
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协助和支持校园建设部进行学校建设施工项目用电危害分析、劳保用品选用。

- Participate in the inspection of electricity consumption of school construction projects, and track the rectification of hidden dangers or hazards.

参加学校建设施工项目用电检查，并跟踪隐患或危害的整改。

- Conduct electricity hazard analysis of campus's construction projects, develop corresponding safety measures, and provide the reference for the selection of personal protective equipment.

进行学校建设施工项目用电危害分析，制定相应安全措施，提供个人防护用品用品指引。

5. Electricity safety requirements 用电安全要求:


5.1. Qualifications and training 资格与培训

- Operators of electric equipment receive job training before taking up the work, and are familiar with the electrical operation regulations and requirements of the post;
电动设备操作人员上岗前接受岗位培训，熟悉本岗位电气操作规程和要求；
- Electrical maintenance personnel must hold valid qualification certificates and receive the job training;
电气维护人员必须持有效资格证书，并接受岗位培训；
- Project management personnel and workers should receive training on safe electricity use and first aid for electric shock.
项目管理人员、工人都应接受安全用电培训，触电急救培训等。

5.2. Electricity safety regulations 用电安全规定

5.2.1. Equipment requirements 设备要求

Before using the electrical device, confirm that it meets the corresponding working environmental and using requirements, understand the potential hazards and

| | | | |
|---|---|--------------------------|-----------------|
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corresponding safety control measures, and use it correctly according to the requirements of the product's manual;

电气装置在使用前，应确认其符合相应环境要求和使用等级要求，了解使用可能出现的危险以及相应的预防措施，并按产品使用说明书的要求正确使用；

Electrical devices cannot be overloaded or used with faults, and flammable, explosive, and corrosive materials should not be stacked nearby. Such as: in the power transformer room, close to the power cabinet etc.;

电气装置不能超负荷运行或带故障使用，附近不应堆放易燃、易爆和腐蚀性物品。
如：配电房内，电源箱附近等；

It is forbidden to use electrical circuits with insulation aging or loss of insulation performance, and protective covers should be added across the ground;

禁止使用绝缘老化或失去绝缘性能的电气线路，线路横过地面应加保护套；

When the protection device is activated or the fuse melts, the cause should be identified, the fault removed, and the electrical device restored to normal before reconnecting the power supply and continuing to use it. When replacing the melt, the melt specification of the fuse should not be arbitrarily changed or replaced with other wires;

当保护装置动作或熔断器的熔体熔断后，应先查明原因、排除故障，并确认电气装置已恢复正常后才能重新接通电源、继续使用。更换熔体时不应任意改变熔断器的熔体规格或用其他导线代替；

When the insulation or casing of the electrical device is damaged, which may cause the human body to touch the live part, it should be stopped immediately and repaired or replaced in time;

当电气装置的绝缘或外壳损坏，可能导致人体触及带电部分时，应立即停止使用，并及时修复或更换；

When the electric equipment and tools are out of use, malfunction or sudden power failure, the power shall be cut off in time, and corresponding technical measures shall be taken when necessary;

| | | | |
|---|---|--------------------------|-----------------|
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| | | Rev. No.: 版本号： | 03 |
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电动设备、工具停止使用、发生故障或遇突然停电时均应及时切断电源，必要时应采取相应技术措施；

Electrical devices and equipment should have accurate identification and warning signs, as well as electrical information necessary for safe operation and maintenance of electrical equipment;

电气装置、设备应有准确标识和警示标志，以及安全操作和电气设备维修所必须的电气信息；

The main distribution room and the second-level distribution cabinet must be locked, and only maintenance personnel can enter and open it. The third-level power box or switch box must not be locked to ensure that the operator can cut off the power in a timely manner;

总配电房、二级配电柜必须上锁，只有维修人员才能进入和开启，三级电源箱或开关箱不得上锁，以保证发生紧急情况时，操作人员能及时断电；

The grounding or zero-connection of electrical devices, equipment, power tools, etc. must meet the requirements of national standards (see "Code for Design of Grounding of Industrial and Civil Power Equipment");

电气装置、设备、电动工具等接地或接零须符合国家标准要求（参见《工业与民用电力装置的接地设计规范》）；


Electrical devices and power tools shall be scrapped if they cannot be repaired or if they fail to achieve the specified safety technical performance after repair.

电气装置、电动工具如果不能修复或修复后达不到规定的安全技术性能时应予以报废。

5.2.2.Operating requirements 操作要求

Operators of electric equipment and tools must pass the related training and operate strictly in accordance with equipment operation instruction;

电动设备、工具操作人员必须经岗位培训，并严格按设备操作规程操作；

| | | | |
|---|---|--------------------------|-----------------|
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| | | Effective date: 生效日期: | 2025-12-01 |
| File name 文件名 | Electrical Safety 用电安全 | | |

Except for professional electricians, it is forbidden for any unauthorized personnel to dismantle the protective equipment, switches, lines, etc. of electric equipment, and notify maintenance personnel in time of failure, and prohibit self-maintenance.

除专业电工外，禁止其他未授权人员拆除电动设备防护装置、开关、线路等，出现故障及时通知维修人员，禁止自行维修；

The construction personnel are only allowed to operate the relevant equipment of their own work.

施工人员只允许操作本职工作的相关设备；

Before using it every day, you must first check the electrical equipment for damage or parts falling off, especially protective devices and other safety devices.

在每天使用前，必须先检查电动设备是否有损坏或零件脱落，尤其是防护装置和其它安全装置；

The mobile and portable power tools should be inspected for housing, switch, and circuit before daily use. When using, the circuit should avoid crossing the channel as much as possible.

移动式、便携式电动工具每日使用前应检查外壳、开关、线路，使用时，线路尽量避免横过通道。

5.2.3. Other safety requirements 其它安全要求

It is forbidden to use power cord reels or sockets that are damaged, leaked or have other unsafe defects;


禁止使用损坏、漏电或存在其它不安全缺陷的电源线盘、插座；

The user must use the equipment in strict accordance with the regulations and instructions for safe use of the equipment;

使用人员必须严格按照规定和设备使用说明书安全的使用；

Electrical equipment is strictly forbidden to be connected randomly and overloaded;

电器设备严禁私拉乱接、超负荷使用；

| | | | |
|---|---|--------------------------|-----------------|
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| File name 文件名 | Electrical Safety 用电安全 | | |

The power cord reel and socket cannot be used in a humid place, and the bare wire cannot be directly inserted into the socket;

电源线盘、插座不能在潮湿场所使用，不能将裸线直接插进插座；

Can't change, connect, install wiring, sockets, etc. without authorization;

不得擅自更改、搭接、安装线路、插座等；

If the electrical appliances, circuits, lights, etc. used in the project are faulty, they should be reported for repair timely.

项目使用电器、电路、灯等出现故障，应及时报修。

5.2.4. Inspection and repair of electrical equipment 电气设备检查及维修

The inspection and maintenance of electrical installations, electrical equipment, and other electrical facilities (such as lighting, sockets, etc.) must be carried out by professional electrical maintenance personnel, and follow the equipment operation and maintenance procedures.


电气装置、电动设备及其它电气设施（如照明、插座等）的检查维修必须由专业电气维护人员进行，并遵守设备操作和维修规程。

Electrical maintenance personnel should be trained in safety technology, work with a certificate, and use qualified PPE for electricians who have passed regular inspections or tests during operation.

电气维护人员应经安全技术培训，持证上岗，作业时使用经定期检查或试验合格的电工用劳保用品。

Electrical maintenance personnel must be familiar with the rated capacity, protection methods and requirements of all electrical devices, the setting values of protection devices and the specifications of protection components. Do not modify the electrical installation or extend the electrical wiring without authorization.

电气维护人员必须熟悉所有的电气装置的额定容量、保护方式和要求、保护装置的整定值和保护元件的规格。不得擅自更改电气装置或延长电气线路。

| | | | |
|---|---|--------------------------|-----------------|
|  | GTIIT_EHS_ISO file | File No.: 文件编号： | GTIIT_EHS_02_13 |
| | | Rev. No.: 版本号： | 03 |
| | | Effective date: 生效日期: | 2025-12-01 |
| File name 文件名 | Electrical Safety 用电安全 | | |

It is forbidden to increase the rated capacity of the electric device without permission, and the setting value of the protective device and the specifications of the protective components must not be arbitrarily changed.

禁止擅自增大电气装置的额定容量，不得任意改动保护装置的整定值和保护元件的规格。

When repairing electrical devices and electrical equipment, in order to prevent misuse by others, they should be locked.

电气装置、电动设备维修时，为防止他人误操作，应挂牌上锁。

Electrical installations must be inspected daily.

电气装置必须每天进行检查。

The electrical part of the electric equipment shall be carried out according to the overall maintenance plan of the equipment.

电动设备电气部分按设备整体维修计划进行。

Portable power tools should have the regular checked such as once a month.

便携式电动工具每月检查一次。

All electric wires, sockets and drag boards in the construction area should be inspected once a month and clearly marked with qualified labels.

The content of the qualified label should include the inspection time, the inspector, and the next inspection time.

施工区域内的所有电线、插座及拖线板等应每月检查一次，并贴明显的合格标签。


合格标签内容应包括检查时间，检查人，和下次检查时间。

All inspections and maintenance must be recorded.

所有检查、维修必须有记录。

5.2.5. Emergency response 应急处理

When an electrical fault occurs, the maintenance personnel must rush to the scene immediately to eliminate the fault.

| | | | |
|---|---|--------------------------|-----------------|
|  | GTIIT_EHS_ISO file | File No.: 文件编号： | GTIIT_EHS_02_13 |
| | | Rev. No.: 版本号： | 03 |
| | | Effective date: 生效日期: | 2025-12-01 |
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当出现电气故障，维修人员必须立即赶到现场，排除故障。

When a personal electric shock occurs, the power supply should be disconnected immediately, so that the electric shock person is separated from the live part and immediate first aid is provided. Before cutting off the power supply, it is forbidden for other personnel to directly contact the electric shock person.

当发生人身触电事故时，应立即断开电源，使触电人员与带电部分脱离，并立即进行急救。在切断电源之前禁止其他人员直接接触触电人员。

When an electrical fire occurs, immediately disconnect the power supply, and use designated firefighting equipment to extinguish the fire.

当发生电气火灾时，应立即断开电源，并采用专用的消防器材进行灭火。

6.0 Annex 附件

None 无