Guidelines for the acquisition / purchasing of Electrical / Electronic equipment

- The Electronics Workshop must be consulted in the purchase / acquisition and commissioning of electrical / electronic equipment
- Ensure that manufacturer / agent supplies two copies each of the Service and Operator manuals
- Depending on the cost / importance of the equipment to a project, incorporate operational / hardware training in the overall costing
- Purchase from manufacturer’s with a reputation for good service and support; research the intended use of the instrument thoroughly; beware of local agents touting features that sounds / looks good but are unnecessary; invariably these features require more circuitry / complexity and may allow a statistically greater chance of failure
- Look at the technology adopted- this may determine the ability to service the instrument at the board-level versus the component-level, ensuring savings in the long-term maintenance of the unit. Also the cost of spent accessories may be commensurate with the technology
- That the manufacturer meets the prerequisites of a recognised standard such as UL, CSA, TUV, etc
- When upgrading equipment that is already interfaced with other equipment to facilitate a particular objective, ensure that the interface cables / ports / protocol / software are compatible with the rest of the old system
- Request a recommended spare parts list from the manufacturer and keep at least these parts in stock
- Will the instrument be moved frequently to different types of environments and if so can it withstand the rigours of the extremes of humidity, temperature, dust or drought as can happen on field trips?
• If the instrument’s performance is critical and the a.c supply is unreliable, then to buffer the effects of power fluctuations, brownouts and blackouts the acquisition of a line-conditioner / UPS may be advisable

• Consider a UPS whose batteries can be systematically changed whilst in operation minimising downtime; it should also have suitable monitoring software that allows safe / automatic shutdown of machine in a blackout

• Some instruments tend to be more tolerant of the type of a.c. supply in Trinidad; this can be a consideration / factor in the selection of equipment. Speaking with other Laboratory technicians in the University and / or with people from other companies, can be helpful in this process

• Are there certain hazards associated with the normal usage of this instrument requiring proper training in its use and maintenance?

• Don’t buy the cheapest instrument just for the sake of price; look at the overall quality and its ability to maintain its integrity / specifications under varying conditions

• If the utmost in portability is desired then the use of battery-operated equipment is recommended; remember though to remove the batteries when not in use for extended periods