

Question 1

- (a) List some intrinsic properties of wearable computers and how they may develop in future. [4]
- (b) What is an Active Badge and how can it be used to locate personnel and equipment. [8]
- (c) Give four applications of the Active Badge. [8]

Answer 1

- (a) Light enough to wear. Probably have a wireless network. Use little power so as to last a year or more without user recharging. Probably have some simple user I/O and simple automatic sensor and configuration systems. Look smart. Exist in large numbers.
- (b) The Active Badge is a wearable computer used primarily for location purposes. It transmits an infra-red identification pulse every 15 seconds or so. The transmissions are diffuse and are picked up by receivers within a confined physical space. Infra-red radiation does not go through walls so the location of an Active Badge can be associated with a particular physical space. If attached to a thing an Active Badge provides a strong hint of where the thing is.
- (c) Locate personnel, pets and equipment.
Route phone calls.
Route videophone calls.
Route desktop.
Audit trail of people.
Audit trail of equipment.
Control of building services.
Source of additional data for indexing.
Communicate current context of people and objects.