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**006.37 vs. 006.42, 621.367, 621.391, 621.399****Computer vision, optical pattern recognition, and optical computers****Computer vision and optical pattern recognition**

Computer vision and optical pattern recognition both involve recognition of forms, shapes, or other optical patterns for the purpose of classification, grouping, or identification. Optical pattern recognition refers to the algorithms or computational methods that enable recognition of visual patterns, while computer vision refers to an application that typically involves not only (optical) pattern recognition techniques, but also special techniques for pre-processing its input data and for interpreting the output of the pattern recognition techniques.

Use 006.37 or 006.42 for works on computer vision and optical pattern recognition that give substantial treatment to the computer programs needed to interpret optical patterns, and also for works treating computer-vision and optical-pattern-recognition devices from the user's point of view. Use 621.399 for works on designing and manufacturing the hardware for computer vision and optical pattern recognition. If in doubt, prefer 006.37 or 006.42.

Use 621.367 for works on devices that record and process optical signals while doing virtually no interpreting (either because interpretation is not needed or because interpretation is left to others—computers or humans), e.g., devices for image enhancement.

**Optical computers**

“Optical computers” is a term used to describe two different kinds of computers. Use 621.391 for works on optical computers that are general-purpose computers in which the central data processing mechanism is based on light (e.g., lasers). Use 006.37, 006.42, or 621.399 for works on optical computers that are special-purpose computers designed to process optical data, regardless of the type of central data processing mechanism.