Synthesis Lectures on Biomedical Engineering

SYNTHESIS
COLLECTION OF TECHNOLOGY

Gerald E. Miller

Sensory Organ Replacement and Repair

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ABSTRACT

The senses of human hearing and sight are often taken for granted by many individuals until they are lost or adversely affected. Millions of individuals suffer from partial or total hearing loss and millions of others have impaired vision. The technologies associated with augmenting these two human senses range from simple hearing aids to complex cochlear implants, and from (now commonplace) intraocular lenses to complex artificial corneas. The areas of human hearing and human sight will be described in detail with the associated array of technologies also described.

KEYWORDS

Human hearing, Audiology, Hearing Aids, Cochlear Implants, Human vision, Intraocular lens, Cataract surgery, Artificial Cornea, Corneal Transplant

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