

According to the World Health Organization, 285 million people are estimated to be visually impaired worldwide.

Age-related macular degeneration alone is the leading cause of blindness among older adults in the Western world. These facts leave no question as to why the brightest minds in science and engineering are setting their sights on vision through new electronics, retinal prosthesis, wearable technologies, and even telescopic contact lenses. Researchers are bringing into focus novel electronics such as systems on plastic, which are deformable and implantable, zero-power, and wireless and have numerous applications for sight and vision. Retinal prosthesis combined with video goggles pulsing near-infrared light, meanwhile, have restored up to half of normal acuity in rats. This symposium showcases and demonstrates the latest prototypes tackling form as well as function: smart glasses with novel display architecture that make them small and light while maintaining an optimal field of view. These breakthroughs not only help subjects see but also hold promise for noninvasive continuous monitoring of eye health. Scientists will reveal the first-ever telescopic contact lens, which magnifies 2.8 times and offers hope for millions suffering from macular degeneration and seeking alternatives to bulky glasses and invasive surgery. These advances reveal the great promise that science holds for the visually impaired -- truly a sight to behold.